CHAPTER-I

INTRODUCTION

1.1 Background of the Study

Financial intermediaries are vital in the economic prosperity of the nation. There are different types of financial intermediaries or financial institutions such as commercial Banks, Development Banks, finance Companies, Cooperatives, etc. Among all those institution, the commercial banks are the key players in the economy of the country. Economic liberalization of Government has encouraged the establishment and Growth of financial institutions in Nepal.

Banks are the backbone of a country's economy. Commercial banks are like financial department stores that provide a number of services to the people. There are numerous services to the people. There are numerous services provided by commercial banks like accepting deposit, providing financial securities, granting loan, money exchanges, financial consultancy, fund transfer, etc. Commercial banks work as intermediaries between the two sectors of the economy: Surplus sector & Deficit sector.

Total assets of bank can be divided into two parts performing assets and non performing assets/loan. Performing assets are those assets which direct generates cash to organization or indirectly helps to generate cash or it facilitates the set ups for better productivity. Loan and advances is direct contributor to banks income whereas cash in vault balance in other bank, fixed assets and other assets are the facilitators which helps the daily operation of bank. Performing assets add positive value to bank as well as to nation. Performing assets are those loans that repay principle and interest to the bank from the cash flow it generates. Non-performing assets can be defined as those assets that cannot be used productively. Non-performing assets is the outdated loan, and bad and doubtful debts. Non-performing assets could wreak banks profitability both through a loss of interest income and write off the principal loan amount.

Non-Performing Assets (NPA) can be defined as a loan or lease that is not meeting its stated principal and interest payments. Non-performing Assets are commercial loans and consumer loans which have not been paid until the time to pay loan is overdue. For a bank, a Non Performing Asset (NPA) or bad debt is usually a loan that is not producing income. Earlier it was largely applicable to businesses. But things have changed with banks widely extending consumer loans (home, car, personal and education, among others) and strict asset classification norms. Banks usually classify as Non-Performing Assets as any commercial loans which are more than 90 days overdue and any consumer loans which are more than 180 days overdue. More generally, it is an asset which is not producing income. If a borrower misses paying his equated monthly installment (EMI) the loan is considered bad, or an NPA. High NPA's are a sign of bad financial health. This has wide-ranging ramifications for a bank, especially in the stock market and money market. So, as soon as a debt goes bad, the banks want it either made better or taken out of their books.

According to the issue published by Reserve Bank of India (RBI): "Non Performing Asset means an asset or account of borrower, which has been classified by a bank or financial institution as sub-standard, doubtful or loss asset, in accordance with the directions or guidelines relating to asset classification." (Bindani, 2060: 48-56).

The mushrooming growth of the banks has led them towards cutthroat competition. On the other hand economic condition of the country is not growing. The less opportunity for getting avenues for loan flotation has compelled the banks to finance without being choosy. Quality of the loans and advances could not be maintained to the desirable level if there is no choice whether to finance or not once the loan is given it is supposed that the repayment of interest or principal shall have to be served without any hindrance. The resources could not be considered utilized properly when the loans provided to the clients not be regular and if there is cumulative overdue outstanding. There may be various reasons behind the loans that turn irregular from regular one. The main reason may economic situation of the country which has global and far reaching impact. The smooth operation of the commercial banks is possible only when the economy of the country functions well. Satisfactory level of return on investment is the prerequisite for the financial sector to be groomed. The other contributing factors that turn the good loan into bad are attitude of the borrower, types and quality of security taken and legal hurdles created by the borrower when the recovery action is started. Once the distributed loans is not returned timely by clients and becomes overdue than it is known as NPA for the banks. Reduction of NPA has always been significant problems for every commercial banks and proper attention for the management of the NPA under top priority. Due to various hurdles on way of management of NPA, commercial banks are how losing their profitability and struggling for their existence.

Operation of the banking institution has been regulated by the international norms, relevant acts, regulation, Memorandum of Association (MOA), Article of Association (AOA), institution given at the time of getting interest & Directives issued by central Bank from time to time. Likewise the expectation of the stakeholder should also be taken in to consideration. All banking institutions are supposed to confine their activities within that periphery.

By taking overview of financial institutions providing banking facility in Nepal there are 32 Commercial Bank, 88 Development Banks, 16 Micro-credit Development Banks, 70, Finance Companies, 16 Co-operatives Societies (licensed by NRB for limited transaction, source: www.nrb.np.com)

1.2 Profile of selected banks

In this study, three commercial banks are selected. Brief profile of those banks is presented below.

These profiles are related to the establishment, objectives and facilities granted by the concerned banks.

NABIL Bank Limited

NABIL Bank Limited, the first foreign joint venture bank of Nepal, started operations in July 1984. NABIL was incorporated with the objective of extending international standard modern banking services to various sectors of the society. Pursuing its objective, NABIL provides a full range of commercial banking services through its 47 points of representation across the kingdom and over 170 reputed correspondent banks across the globe.

NABIL, as a pioneer in introducing many innovative products and marketing concepts in the domestic banking sector, represents a milestone in the banking history of Nepal as it started an era of modern banking with customer satisfaction measured as a focal objective while doing business.

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

Various facilities (product & Services) have been provided by NABIL. It provides loans, Working Capital Loan, Fixed Capital Loan, Import Loan, Bills Discounting facility Under Suppliers Credit ,Export Loan ,Hire Purchase ,Project Finance ,Consortium / Syndication Loan Mortgage Loan, loan against Deposit and Government Security ,Housing Finance, Auto Finance, NABIL Property & Personal Finance, NABIL Receive Deposit by Current , Call, Time, Normal Saving, NABIL Lok Bachat, NABIL Bachat, NABIL Student Saving, NABIL Bal Bachat, NABIL Jestha Bachat, NABIL Jestha Muddhati, Retirement Fund, Provident Fund, NABIL Nari Bachat and Nabil Muddhati. Remittance Facilities (swift Transfer, Western Union, E-Remittance(Qatar, Doha),Travelers Cheque, Bank Transfer, etc), Card & ATMs, E-Banking, Clean Bills etc. And other facilities are US visa free, safe Deposit Locker, Balance Certificate, Advance Payment Certificates. Its current share capital & total Assets.

Table: 1.1

Share Capital Structure

Authorized Capital	Rs.2100,000,000
Issue Capital	Rs.2029769400
Paid Capital	Rs.2029769400
Value Per Share	Rs.100

Source: Annual Report of NABIL

Nepal Investment Bank Limited

Nepal Investment Bank Ltd. (NIBL), previously Nepal Indosuez Bank Ltd., was established in 2043 as a joint venture between Nepali and French partners. The French partner (holding 50%) of the capital) was Credit Agricole Indosuez, a subsidiary of one of the largest banking groups in the world. When Credit Agricole Indosuez decided to divest, a group of companies comprising of bankers, professionals, industrialists and businessmen acquired 50% of the holdings of Credit Agricole Indosuez in Nepal Indosuez Bank in 2060. The name of the Bank was changed to Nepal Investment Bank Ltd. upon approval of the Bank's Annual General Meeting, Nepal Rastra Bank and Company Registrar's Office.

NIBL State "We believe that NIBL, which is managed by a team of experienced bankers and professionals having proven track record, can offer you what you're looking for. We are sure that your choice of a bank will be guided among other things by its reliability and professionalism."

Nepal Investment Bank Limited (NIBL), operating under the guidelines set by The Government of Nepal and Nepal Rastra Bank (the Central Bank of Nepal), offers one of the safest and the most secured means of money transfer to Nepal. Remitters can send money to NIBL from any part of the globe through our correspondent banks, exchange houses and banks in the Middle East and using Prithivi Express, our in-house remittance software.

Table: 1.2

Share Capital Structure

Authorized Capital	Rs. 4000000000
Issue Capital	Rs.2409097700
Paid Capital	Rs. 2409097700
Value Per Share	Rs.100

Source: Annual Report of NIBL

Everest Bank Limited

Catering to more than 4 lacs customers today, Everest Bank Limited (EBL) is a name you can depend on for professionalized and efficient banking services. Founded in 1994, the bank has been one of the leading banks of the country and has been catering its services to various segments of the society since then. With clients from all walks of life, the bank has helped develop the nation corporately, agriculturally and industrially. So one can say with all earnestly that Everest Bank Limited is truly a Nepalese bank Non-Performing Assets & Net Profit of EBL.

Punjab National Bank (PNB), our joint venture partner (holding 20% equity in the bank) is the largest nationalized bank in India. With its presence virtually in all the important centers at India and over 5600 ATM counters, Punjab National Bank offers a wide variety of banking services which include corporate and personal banking, industrial finance, agricultural finance, financing of trade and international banking. For its excellence in banking services, it was recently awarded the "Best Bank Award 2011"amongst all banks in India by the leading corporate magazine, Business India.

Recognizing the value of offerings a complete range of services, we have pioneered in extending various customer friendly products such as Home Loan, Education Loan, EBL Flexi Loan, EBL Property Plus (Future Lease Rental), Home Equity Loan, Vehicle Loan, Loan Against Share, Loan Against Life Insurance Policy and Loan for Professionals. EBL was one of the first bank to introduce Any Branch Banking System (ABBS) in Nepal. EBL has introduced Mobile Vehicle Banking system to serve the segment deprived of proper banking facilities through its Birtamod Branch, which is the first of its kind. EBL has introduced branchless banking system first time in Nepal to cover unbanked sector of Nepalese society. EBL is first bank that has launched e-ticketing system in Nepal. EBL customer can buy yeti airlines ticket through internet.

EBL Receive Deposit by Current, Saving,Normal Saving,Nari Bachat Khata, Saving Premium, Baal Bachat Khata, Sugat Bachat Khata, FREEDOM Saving, Sunaulo Bhavishy Yojana, FCY Deposit,USD Deposit, EBL NRN Deposit, Recurring Deposit, Retirement Plan Deposit.

Remittancy facilities EZ Remit, Xpress Money Transfer, Nepal Remit, Money Gram. These arrangements have facilitated the Bank for inward remittance from different countries-UK, Malaysis, Singapore,UAE, Kuait Baharain, Qutar and other location. It has facilitated the remitter to remit the money to any place in India and from there to Nepal without any hassles.

Table: 1.3

Share Capital Structure

Authorized Capital	Rs.2000,000,000
Issue Capital	Rs.1281406500
Paid Capital	Rs.1279609490
Value Per Share	Rs.100

Source: Annual Report of EBL

1.3 Focus of the Study

The research is based on impact of Non-Performing Assets on profitability of commercial banks. Currently some Nepalese commercial banks are facing huge amount of Non-Performing Assets. Bank should minimize Non-Performing Assets level to achieve their financial goal.

Increasing Non-performing assets is one of the emerging problems of Nepalese commercial banks. This study mainly focused on Non-performing loans or assets of selected commercial banks. Several ratios like loan and advances to total assets, loan and advances to total deposit, Non-performing loans to total loans and advances, provision held to Non-performing assets were used for performance evaluation for comparable forum on Non-performing assets. It also tried to show the effects on profitability of commercial banks and related NRB directives, concerning towards the rendering loan and loan loss provision. The total NPA of Nepalese commercial banks are growing rapidly and it is the main cause of failure of bank. In this study, the NPA of commercial banks were presented, analyzed, summarized and drawing findings forwarded and recommendation

Government owned banks have huge amount of Non-Performing Assets level with comparison to private banks. This research also focused causes impact and remedies of burning problem of Non-Performing Assets level with the help of secondary data analysis. In the same way the study will also be focused in Non-Performing Assets regarding made in the past five years of three sample banks.

1.4 Statement of the Problems

After the liberalization started in 1980's the financial sector made some progress and prudent regulatory measures have been introduced by central bank. However actual performance of the financial institution could not improve. Non-Performing Assets is one of the major problems in Nepalese financial institutions facing today.

Commercial/Financial institution in Nepal have been facing several problems like lack of smooth functioning of economy, different policies and guidelines of NRB, Political instability, Security problem, poor information system, over liquidity caused by lack of good lending opportunities, increasing Non-performing assets etc. In the present context where Nepalese banks are facing the problem of increasing assets Non-performing Assets, more amounts have to allocate for loan loss provision. As earlier mention the provision amount is taking out of deducting from the profit of the bank. The bank's profit might come down.

Currently the banking sector is facing various problems. One of them is the banking has been becoming a victim of huge non-performing assets. Non-performing assets are one of the serious problems faced by the commercial banks. There are five research questions in this study to find out the effect of NPA on the bank.

1. What is the proportion of Non-Performing Assets in the selected commercial banks?
2. What are the causes of Non-Performing Assets?
3. What are the main factors behind of Non-Performing Assets?

4. What is the impact of Non-Performing Assets on the performance of commercial banks?
5. What are the methods to control Non-Performing Assets?

1.5 Objectives of the Study

The main purpose of this thesis study revolves around the subject of acknowledging the solution to minimize the problem of Non-Performing assets. The specific objectives of this research are as follows:

1. Identifying the present condition of Non-Performing Assets in the selected banks under study
2. To evaluate the relationship between the Non-Performing assets to the loan and advance
3. To analyze the impacts to Non-performing Assets to the commercial banks

1.6 Limitations of the Study

Every study has its limitations. The main limitation of the study is that, this study is mainly based on secondary data, published books and annual reports of the selected banks and so on. As such, this study is also not a perfect one but we have to give full effort to minimize them. We have to do many things staying within many types of limitations and boundaries. The study has been subject to the following limitations.

1. The study is based on data and information provided by commercial banks and published in the report of NRB.
2. The study fully depends on secondary data so the result showed by this study would also fully rely on the accuracy and reliability of secondary data of selected banks.
3. The research is based on data and information of only five fiscal years.

1.7 Significance of the Study

Nepalese commercial banks are operating in the competitive environment. In this situation, banks have to adopt suitable strategies for their existence. They should balance and coordinate the different functional areas of business concern. The success or failure of any organization depends on its strategy, which is affected by loans and advance. Non-performing Assets is one of the problem which direct hamper the profitability or banks. Therefore, the study might concern bank as well as it might be valuable for the researchers, scholars, students who want to study the Non-performing Assets of the commercial banks.

In present context, the study helps Nepalese Commercial banks to be competent with low level of Non-performing Assets. This study also tries to find out the impact of Non-performing Assets on macroeconomics. It also tries to indicate present weakness of NRB directive and rules regarding it. As per the rules laid down by NRB, the loan and advance which is overdue for three months or more should be treated as Non-performing Assets. Therefore, the significance of the study is for banking sector. The major impact of Non-performing Assets lies in the fact that it does not generate income. The significance of the study will also be for development banking sector, finance companies, co-operatives, researchers, whosoever want to study in this topic and other interested groups.

1.8 Organization of the Study

To make the study precise and attractive in presentation, this research work has been divided into five chapter namely Introduction, Review of literature, Research methodology, data presentation and analysis and finally summary, conclusion and recommendation.

Chapter I: Introduction

The first chapter includes narrow aspects of this study like General background of the study, Statement of the problem, Objective of the study, Focus of the study, Significance of the study along with limitation of the study.

Chapter II: Review of Literature

The second chapter incorporates that the conceptual thoughts and related study regarding the subject matter.

Chapter-III: Research Methodology

This chapter contains research methodology employed in the study. It includes the research design and tools and techniques used in the research work. It provides guidelines and gives a road map to analyze the collected data.

Chapter-IV: Presentation and Analysis of Data

This chapter covers analysis, presentation and interpretation of the acquired data, which was collected through the designed methodology. Data are presented in tabular, graphic or in an equation from to achieve pre stated objectives. This chapter produces a shape to facilitate the analysis of relevant data in an attractive way.

Chapter-V: Summary, Conclusion and Recommendations

This chapter contains summary of findings, conclusion, and recommendations that can be useful for academicians as well as for practitioners.

CHAPTER- II
REVIEW OF LITERATURE

The review of literature is a very important aspect of the research. It is reviewing of research studies of other relevant proposition in related area of the study, so that, all the past studies, their conclusion and deficiencies may be known and further research can be conducted. For this, several books, dissertation reports, hands out and articles published in journals, websites related to the subject and newspaper are reviewed. This chapter has been divided into the following parts.

1. Conceptual Framework/Theoretical Review
2. Origin and Concept of the bank
3. Review of relevant NRB Directives
4. Review of Related Thesis
5. Review of Related Articles/journals
6. Research Gap

2.1 Financial Institution

Financial institutions are the organizations that issue financial claims against themselves and use the proceeds to purchase primarily the financial assets of others. They are financial intermediaries through which savers can indirectly provide funds to borrowers. They actively participate in the money market and the capital market, as both suppliers and demanders of funds. They act as the bridge between the savers and users of the fund. In other words the collect the scattered deposits and give loans or invest to maximize their wealth.

Financial institutions refer to any institution established with the objective of providing loan to agriculture cooperative industry or any other specific economic sector or lf accepting deposit from the general public. The term also refers to any other institution called financial institution by NG by publishing a notice in Nepal Gazette. However the term does not signify commercial bank (NRB Act 2012).

Financial institutions are interposed between the ultimate borrowers and lenders to acquire the primary securities of the borrowers and provide other securities for the portfolio of the lenders-Gurely, J.N and Shaw E.S.

In a board sense, financial institutions include all the institutions engaged in the business of financial intermediations between depositors and borrowers and borrowers. These financial institutions can be classified into (Dahal and Dahal,1992:168)

a) Banking Financial Institutions

Banks are the financial intermediaries with which people are most familiar. A primary job of banks is to take in deposits from people who want to save and use these deposits to make loans to people who want to borrow. Banks pay depositors interest on their deposits and charge borrowers slightly higher interest these rates of interest covers the banks cost and returns some profit to the owners of the banks.

Besides being financial intermediaries, banks play a second important role in the economy; they facilitate purchase of goods and services by allowing people to write checks against their deposits. In other words, banks help create a special asset that people can use as a medium of exchange. A medium of exchange is an item that people can easily use to engage in transactions. A bank's role in providing a medium of exchange distinguishes it from any other financial institutions. Stocks and bonds, like bank deposits, are a possible store of value for the wealth that people have accumulated in past saving, but access to this wealth is not as easy, cheap, and immediate as just writing a check. (Mankiw, 2000:557)

This institution offers the public deposit and credit services, as well as a growing list of newer and more innovative services, such as investment advice, security under writing and financial planning (Rose, 2001:82). They devote most of their resources to meeting the financial needs of business firms. However, banks have significantly expanded their offering of financial services to consumers and units of government. It includes commercial banks, Development Banks, etc.

b) Non Banking Financial Institutions

These institutions began primarily to reach small and help these customers achieve home ownership and other personal goals. Non Banking financial institutions include finance companies, Cooperatives, Credit Unions, Saving Banks, Money Market Funds, Postal Saving, Insurance Companies, and Welfare Fund etc.

2.2 Commercial Banking at A Glance

(NRB, Banking and Financial Statistics, Mid-July 2011, Issue No. 57)

The number of commercial bank branches operating in the country increased to 1245 in Mid – July 2011 from 980 in mid July 2010. Among the total bank branches, 50.5 percent bank branches are concentrated in the central region followed by Western18.0 percent, Eastern 17.3 Mid Western 8.0 percent and Far Western 6.0 percent respectively

An increment in the number and business of commercial bank contributed to impressive growth in the size of total assets i.e. sources of fund. The total sources of fund of commercial banks increased by 11.6 percent compared to decrement by 3.0 percent in the previous year. By the end of this fiscal year, the total assets of commercial banking sector reached to Rs.878,364 million from Rs 787,301 million in the last period. Loans and advances to total assets remained 60.1 percent in Mid - July 2011. Similarly, share of investment and liquid funds to total assets registered 17.0 percent and 11.2 percent respectively. The composition of liabilities of commercial banks shows that, the deposit has occupied the dominant share of 78.3 percent followed by others 12.2 percent capital fund 6.7 percent and Borrowings 2.8 percent in the Mid - July 2011.

In the Mid - July 2011, the loans and advances increased marginally at lower rate of 12.4 percent compare to 16.8 percent in Mid - July 2010. By the end of Mid - July 2011, the total outstanding amount of loans and advances including Bills Purchase and Loan against Collected Bills of commercial banks reached to Rs. 528,023 million. It was Rs. 469,378 million in Mid - July 2010.

The total investment including share & other investment of commercial banks in Mid - July 2011 increased by 11.6 percent and remained to Rs. 149,557 million from Rs.

134,041 million in Mid – July 2010. Similarly liquid fund decreased by 4.6 percent and amounted to Rs. 98,072 million in mid – July 2011.

In the Mid - July 2011, total deposit of commercial bank increased by 9.0 percent compare to 11.9 percent growth in the Mid - July 2010. As of Mid - July 2011, it reached to Rs. 687,588 million from Rs 630,881 million in the Mid - July 2010. Among the component of deposit, current deposit decreased by 2.0 percent compared to 12.5 percent increment in last year. Similarly, saving deposit decreased by 2.8 percent and fixed deposit increased by 26.8 percent.

The fixed deposit comprises the major share in total deposit followed by saving deposit, call deposit and current deposit. As of Mid - July 2011, the proportion of fixed, saving, and call & current deposits are 36.9 percent, 33.6 percent, 17.0 and 11.5 percent respectively.

In the Mid - July 2011, the borrowing increased by 25.6 percent compared to 8.0 percent in the previous year. By the end of Mid – July 2011, it reached to Rs. 24,853 million from Rs. 19,784 million in the Mid - July 2010. Capital fund of commercial banks increased by 45.0 percent compared to previous year and reached to Rs. 59,064 million in Mid - July 2011. It was Rs. 40,720 million in mid - July 2010.

Out of the Rs. 528,023 million outstanding sector wise credits in Mid - July 2011, the largest proportion of the loans and advances is occupied by manufacturing sector. The share of this sector is 21.7 percent followed by wholesale & retailers 20.8 percent, other sector 12.7 percent, finance, insurance & real estate by 11.3 percent and construction 9.8 percent. Similarly, transportation, communication & public services comprise 4.7 percent, consumable loan by 6.2 percent, other service industries by 4.3 percent and agriculture by 2.4 percent in the same period. The outstanding of deprived sector credit of commercial banks in the Mid - July 2011 by the end of Mid – July reached to Rs. 19,387 million as presented in Table 41. The ratio of deprived sector credit to total outstanding of product wise loans and advances stood at 3.67 percent in the current period. Last year it was 3.56 percent. In Mid - July 2011, the credit to deposit ratio of the commercial banks reached to 76.8 percent compared to 74.0 percent in Mid - July 2010.

The non-performing loan of commercial banks increased to 3.2 percent in Mid – July 2011 from 2.39 percent in the Mid - July 2010. The total amount of NPA in Mid –July 2011reached to Rs. 16,872 million from Rs. 11,223 million in the Mid - July 2010.

2.3 Financial Markets

The term financial markets refer to the network of borrowers and lenders of funds within the economy and to the general market place through which borrowers and lenders are brought together. There is the need for infrastructure since it is typically provided by the arrangement for trading in securities. It is the mechanism created to facilitate the exchange of financial assets.

Investments are made in assets. Assets, generally, are of two types, Real Assets (Land, Building, Factories, and Vehicles etc) and Financial Assets (Stocks, Bonds, T-Bill, etc). These two types of investment are not competitive but complementary. The markets where financial assets are called financial markets.

Financial markets can be classified on different basis as given below

2.3.1 Primary and Secondary Market

This classification is on the basis of securities traded. Primary market refers to the market where new securities are issued for the first time to raise funds. Securities traded in the primary market for the very first time referred to as Initial Public Offering (IPO).

Secondary market refers to the market where exiting or already outstanding securities are traded among investors. NEPSE is an example of secondary market.

2.3.2 Money and Capital Market

On the basis of life span of securities, financial markets of are classified as money and capital markets. Money market refers to the market where short term highly liquid debt securities are traded. A money market typically involves financial assets that have a life span of one year or less. Money market instruments include short term of deposit marketable, liquid and low-risk securities. It includes T-Bill, Negotiable Certificate (CDs), Banks Acceptances, Commercial Papers etc.

Capital markets are the markets meant for long term securities. Capital markets typically involve financial assets that have life spans of greater than one year.

2.3.3 Loan and Security Market

Another way of classifying financial market is to divide them into market for loans and market for securities. Market for loan is negotiated face to face directly between the borrowers and lenders. Securities market is impersonal or open market where buyers and sellers of securities are unknown to each other. Trading is done through the help of the brokers or dealers (Shrestha and Bandari,2004)

2.4 Type of Loan

A loan-unlike equity-is a fixed payment contract irrespective of whether there is profit or not. Yet business fail and the contractual payment are not honored. If the loan is secured through collateral, the bank can size and sell the collateral, but in many countries that involves legalities and delays.

Loans and advances are the primary assets of the commercial banks. Most of banks fund are used to acquire earning assets, while provide the bulk of revenue and enable them to cover expenses, including, the cost of capital. There are various type of bank loans, according to the way in which the interest payments are calculated. Banks loams may be classified as, (Shresth and Bandari,2004:263-266)

2.4.1 Amortized Loans

Amortized loan refers to the determination of the equal annual loan payments necessary to provide a lender with a specified interest return and repay the loan principal over a specified period, so the loan takes the form of an annuity.

In the amortized loans system, first step is to calculate installments to be paid for every period. Suppose the loan amount is RSL the rate of interest is K percent per period and the number of payment is n, the installment payment can be calculated as follows.

2.5 Loan Management

Loan and advance dominate the asset side of the balance sheet of any bank. Similarly, earnings from such loans and advances occupy a major space in income statement of the bank. Lending can be said to be the raison deter of a bank. However, it is very important to be reminded that most of the bank failures in the world are due to shrinkage in the value of loan and advances. Hence, loan is known as risky assets. Risk of non-repayment of loan is known as credit risk or default risk (Bhandari,2003:114)

Performing loans have multiple benefits to the society non performing loans erode even exiting capital. Considering the importance of lending to the individual bank and also to the society it serves, it is imperative that the bank plans its credit operations. Sound credit policy, whose objectives are as follows, is a foundation in this direction.

1. To have performing assets.
2. To contribute to economic development.
3. To give guidance to lending officials.
4. To establish a standard for control.

The established credit policy normally specks about the following components.

2.5.1 Loan Volume

The policy should contain the credit deposit ratio (CD ratio) the bank wishes to maintain. CD ratio is very much influenced by the behavior of banks liabilities. The higher the volatile deposit and volatile borrowings lower the volume of loan and vice-versa. Moreover, the banks should fix the mount of loan it wishes to give a single borrower. Limit should not be more than the one set by regulatory authorities. In Nepal, a bank can give maximum loam to a borrower as follows

Funded credit: 25% of banks core capital

Non- Funded credit: 50% of banks core capital

2.5.2 Loan Mix

The bank gives loan to various sectors. This is necessary for the long term survival of the bank. Even if any sector is doing very well, the bank does not put its total money in that sector. If the bank concentrates its lending only in one sector, failure of the sector may cause bankruptcy of the bank. Even if two individual borrowing units of two sectors have the same level of risk, the portfolio risk is minimized due to diversification. There is a practice of fixing maximum amount of loam bank wants to give in one sector. Normally, the ceiling is fixed in relation to core capital of the bank. As per NRB, if a bank wishes to have credit exposure (funded+ non-funded) in any sector more than 100% of its core capital, the same should be approved by the Board of Directors and should be notified to NRB.

Similarly, the policy should have reference to short term and long term loan mix. This is very much affected by the nature of banks deposits mix and interest rate movement in the market. The bank having short term gives higher rate of return. However, in the scenario of rising interest rate, bank can make more money by having loan portfolio maturing in the short term.

2.5.3 Pricing

The policy should have reference to the pricing of loan services; profitability in loan is calculated as follows.

P=I-O-C-D

Where, P=profitability, I= interest, O= operating expenses, C=cost of fund,

D=Expected Default loss.

There is a practice of fixing prime lending rate. Based, on the risk, a percentage is added in the prime lending rate. The higher the risk, the higher will be the rate. Being a custodian of public money, the bank however should not take risk beyond is. The policy should speak whether the banks adopts fixed or floating mixed type of interest rate in its portfolio. The policy should speck about compensating balance (the balance the borrower is required to maintain at the bank as a condition of the loan) and commitment fee.

Credit policy should positively react to interest rate structure in the market. Flexibility required. However, no concession beyond certain level of interest rate on the borrowers threat that they would shop around.

2.5.4 Lending Authority

This is one of the very critical aspects of loam management. Misuse of lending authority puts the bank at a risk. Some banks adopt centralized while some banks adopt decentralized approach regarding lending authority. Under centralized approach, lending authority is not given to branch staff. Under decentralized approach, a certain limit is given to forward to Head Office for approval.

2.5.5 Risk Analysis

The policy should have reference to the acceptable character of the borrower. Though it should not be like a straitjacket, the policy should specify the acceptable liquidity, leverage, coverage, efficiency and profitability ratios so that three can be consistency in the risk perceived by all lending officials.

2.5.6 Loan Classification and Provisioning

Though all loans are good at the time of disbursement, with the passage of time, they show the sign of problem. Based on the health of loan, they should be classified and provided accordingly. Provisioning is made as cushion against possible losses and to reflect the true picture of banks assets. Hence, there is a practice of showing net loan (total loan-loan loss provision) in the financial statements instead of gross loan. The bank should comply with statutory regulation relating to loan classification and provisioning.

NRB regulation on classification and provisioning is as follows:

Type	**Criteria**	**Provision Requirement**
Pass	Principal overdue up to 3 months	1%
Substandard	Principal overdue up to 6 months	25%

Doubtful	Principal overdue up to 1 year	50%
Bad	Principal overdue above 1 year	100%

Pass loan is called nonperforming and other are called 'Non-Performing Assets' provision requirement in case of loan given against personal guarantee only is additional 20% for pass substandard and Doubtful loans. Provision for restructured, rescheduled and swapped loan is 12.5% only. ***(Source: www.nrb.com)***

For better management of loan portfolio, the management can have more classifications and can have more stringent criteria than the one fixed by regulating authorities.

2.5.7 Statutory Directive

Management should devise the policy keeping mind the statutory directives. Lending function of a bank is heavily influenced by the directives because the quality of banks loan portfolio has to do more with risk and safety than any other banking operation.

Credit facility helps create jobs and income to thousands of people directly and indirectly thereby raising their living standard. Hence, regulatory authorities make efforts to ensure there is no discrimination to any community or any individual on the ground of race, sex, religion, age, education level etc. In USA, the community Reinvestment Act 1977 requires the banks to meet the credit needs of individuals and businesses in their territories. Similarly, Equal credit opportunity Act 1974 bars the banks from denying credit facilities to any individual because of their race, sex, religion, age, etc.

More regulation if NRB relating lending activities of the banks are as follows:

- Single borrower limit.
- Sector limit.
- Directive credit (priority sector and deprived sector limit.)
- No loan to restricted areas.
- No loan to directives/employees/shareholders holding more than 1% share of the bank.
- Interest rate deviation.

2.5.8 Quality of Lending Officials

Experience, knowledge adaptability etc of lending officers should be considered while formulating the policy.

Considering all above facts, the credit policy should be carefully established, communicated properly to the lending officers and implemented effectively by the lending officers. The credit policy of the bank is established by the board of directors based on the recommendation of Chief Executive Officer or senior loan officer.

2.6 Loan Approval Process

Loan is approval by the approving authority only after being convinced that the loan will be rapid together with interest. There are many processes involved to approve the loan which are follows ***(Dahal & Dahal, 1992-121)***

A borrower is normally required to submit an application to the bank along with required documents:-Project Proposal, Historical Financial Statements and Documents are pertaining to company's legal existence.

2.6.1 The Credit Analysis

Following steps are taken to analyze/appraise loan application:-

Historical Analysis

Historical analysis refers to analysis of past financial statement & business risk. The former is quantitative while the latter is qualitative analysis. The financial analysis exhibit the financial performance of the management and business risk analysis helps to the major risk factors (supply, production, demand, collection, management) observed in the past and how management mitigated them. The underlying purpose of historical analysis is to know the major factors in borrower's present condition and past performance which foreshadows borrower's likely success or failure in repaying the debt in future.

There is a practice of analyzing 5Cs of credit (Character, Capacity, Condition, Capital and Collateral) by the financial institutions.

Character

It refers to the personal traits (ethics, honesty and integrity) of borrower's which is very important for lending decision. Serious purpose, truthfulness in answering the queries, responsibility and seriousness in making all the efforts to repay loan make up what a lending official call the character. No further credit analysis is made if the lending official feels the borrower lacks character.

Capacity

Capacity is being used in two senses.

- Legal capacity to borrow money.
- Capacity to generate enough income to repay loan or through liquidation of assets.

Condition

Condition refers to the general economic condition beyond the control of the borrower that affects the business of the borrower. This is basically security, political and other social conditions under which the business has to operate. Loan is given to the borrower if lending officials feels general condition is favorable for that of business.

Collateral

Loan is given if the banker is satisfied that the borrower can repay money from the cash flow generated from operating activities. However, the bank wants to ensure to ensure that their loan is repaid even in case of default. In such cases, the banker asks for additional securities. Collateral can be fixed in nature land, building, machinery or working capital like inventories and account receivables.

Capital

Capital refers to the net worth of the borrower. This is covered under capacity above while analyzing the leverage ratio. Leverage ratio will be high if the borrower has low capital. A bank gives loan only when it finds leverage ratio acceptable to it of if the borrower has enough capital.

2.6.2 Forecast and Risk Rating System

Based on the findings of historical analysis, and in light of present and foreseeable future environment, the analysis has to forecast impending major risks. The analyst should also highlight to what extent inherent risks will be mitigated and how unmitigated risk can be covered.

Analysis of credit information attempts to answer the question “how risky would it be to lend to this applicant?” Most commercial loans are risky to some degree. Up to a certain risk level. A lender may justify granting a particular loan and attempt to compensate for the relatively high risk by charging a high rate of interest and adequate securities. Above a certain risk level, loans will not be granted. Thus, it can be said that credit analysis: (i) determines which loans will be made and which will not and (ii) provides a ranking from low risk to high risk for those loans that are made, thus helping determine the rates of interest to be charged and the value of securities to be obtained.

2.6.3 Return

The amount of loan has got inherent cost as it is obtained from either shareholder or depositor or creditor. The analysis should be made to calculate total return (interest, fee and commission) and compare whether it meets banks standard.

2.6.4 Liquidation

The analyst should ascertain banks ability to recover loan in case of liquidation of the borrower. If liquidation analysis reveals insufficient security, additional security may be asked for.

2.7 Action Guidelines According to State of Loan

On different states of loan different actions should be taken. *(Dahal & Dahal, 1992-55)*

2.7.1 Pass Loan

Provide “good” service, retain customer. Consider new facilities.

2.7.2 Indicative of Sub- Standard

- Obtain legal review of all documentation.
- No mew facilities.
- Frequent contact to gain more information/monitor problems.
- Suggest ways to strengthen company and protect bank.
- Consider inter-creditor agreement.

2.7.3 Substandard

- Service not at issue, move immediately to strengthen Banks position.
- Seek reduction in facilities and/or increase in security, restructure debt if advantageous to Bank.
- Take “hard-line” with management, demand specific plan to improve situation.
- Look for ways to improve management, control management, etc.

2.7.4 Doubtful

- No interest taken to profit.
- Look for ways to avoid losses.
- Take legal action now, sell security if advantageous to bank, force management to repay/finance.
- Monitor weekly, track performance, control all assets and liabilities, if possible.

2.7.5 Bad

- Loss inevitable, take provision to cover loss and all costs of liquidation.
- Look for ways to minimize losses, study timing of sales.
- Be creative, but remember time value of money.

These are general guidelines for managing loans and advances according to its state.

2.8 Financial Performance and Financial Institution

Financial soundness is a situation where depositor's funds are safe in a stable banking system. The financial soundness of a financial institution may be strong or unsatisfactory varying from bank to another. External factors such as deregulation: lack of information among customers: homogeneity of the bank business, connection among banks do cause bank failure. Some useful measures of financial performance which is the alternative term as financial soundness are coined into what is referred to as CAMEL. The acronym 'CAMEL' refers to the five components of a bank's condition that are stressed: Capital adequacy, Assets quality, Management, Earnings, and Liquidity. A sixth component, a bank's Sensitivity to market risk, was added in 1997, hence the acronym was changed to CAMELS.(Note: that the bulk of the academic literature is based on pre-1997 data and is thus based on CAMEL rating.) Ratings are assigned for each component in addition to the overall rating of a bank's financial condition. The ratings are assigned on a scale from 1 to 5 *(Bhandari,2003:127)*

Capital Adequacy

This ultimately determines how well financial institutions can cope with shocks to their balance sheets. The bank monitors the adequacy of its capital using ratios established by The Bank for International Settlements Capital adequacy in commercial banks is measured in relation to the relative to the relative risk weights assigned to the different category of assets held both on and off the balance items.

Assets Quality

The solvency of financial institutions typically is at risk when their assets become impaired, so it is important to monitor indicators of the quality of their assets in terms of overexposure to specific risk trends in non-performing loans, and the health and profitability of bank borrowers especially the corporate sector. Credit risk is inherent in lending, which is the major banking business. It arises when a borrower defaults on the loan repayment agreement. A financial institution whose borrowers default on their loan repayment may face cash flow problems, which eventually affects its liquidity position.

Ultimately, this negatively impacts on the profitability and capital through extra specific provisions for bad debts.

Earnings

This continued viability of a bank depends on its ability to earn an adequate return on its assets and capital. Good earnings performance enables a bank to fund its expansion, remain competitive in the market and replenish and/or increase its capital. A number of authors have urged that, banks that must survive need. Higher Return on Assets(ROA),better return on Net Worth/Equity(ROE), sound capital base i.e. the Capital Adequacy ratio(CAR), adaptation of corporate governance ensuring transparency to stakeholders that is equity holders, regulators and the public.

Liquidity

Initially solvent financial institutions may be driven toward closure by poor management of short-term liquidity. Indicators should cover funding sources and capture large maturity mismatches. An unmatched position potentially enhances profitability but also increases the risk lf losses. The “M” represents Management, given that this paper is hinged on financial performance, the management component in not considered in the measure.

Generally, literature on corporate governance comprises attributes such as financial transparency, disclosure and trust among others and it is revealed that financial transparency and disclosure enhance trust between the stakeholders and organizations like commercial banks. Capital Adequacy, Earnings and Liquidity are the key dimensions of measuring financial performance in Commercial Banks. In summary, this literature forms an underpinning for the establishment of the association between corporate governance and financial performance.

2.9 Risk

Risk is defined as the variability of the returns of a period. The deviation between the expected and actual return brings variability in the return and the variability is termed as risk. The higher the deviation between expected and actual return, the higher will be the risk. Risk is the uncertainty or returns and if there is certainty there is no risk at all. Risk and return in investment go together and without risk return can be expected.

2.9.1 Source of Risk

Various factors contribute to investment uncertainty that contribute to investment risk are as follows *(Bhattarai,2006-107):*

2.9.1.1 Liquidity Risk

Liquidity risk is associated with uncertainty created by the inability to sell the investment quickly for cash. The return variability will increase if price discounts and sales commission are to be given in order to liquidate assets in time. The less liquidity, the greater will be the risk. So, two factors-price and time are associated with liquidity.

2.9.1.2 Interest Rate Risk

It is the potential variability of a return caused by changes in the market interest rates. Market interest rate influences the value of an asset and hence its return. If the market interest rate rises, the value of an asset will decrease. A higher interest rate means a higher discount rate and a higher discount rate causes a lower present value of any asset.

2.9.1.3 Default Risk

Default risk is related to the probability that some or all of the initial investment will not be returned. The degree of default risk is closely related to the financial condition of the company issuing and the security is rank is claims on assets in the event of a default or bankruptcy.

2.9.1.4 Call ability Risk

Some securities are issued with a call provision i.e. a company may call back the securities issued before their maturity. The call ability risk is the portion of securities total variability of return that derives from the possibility that the issue may be called.

2.9.1.5 Convertibility Risk

Convertibility risk is that portion of the total variability of return from a convertible bond or convertible preferred stock that reflects the possibility that the investment may be converted into the issuer’s common stock at a time or under terms harmful to the investor’s best interests.

2.9.1.6 Bull-Bear Market Risk

The various market forces make securities price upward and downward. The upward trend of market price(Bull Market) and downward trend of market price(Bear Market) create a long lasting source of investment risk.

2.9.1.7 Industry Risk

Industry risk is that portion of an investment's total variability of return caused that affect the products and firms that make ups and downs to the industry. Some of the factors which affect all the firms in an industry may be the industry's life cycle, international tariffs or quotas, industry-related taxes and availability of industry related raw materials.

2.9.1.8 Management Risk

Management errors are difficult to analyze, investors can reduce their risk by buying shares in those corporations in which the executives have the significant equity investment instead of buying shares in the corporation in which executives have no equity investment.

2.9.1.9 Political Risk

Political risk is the portion of assets total variability of return caused by changes in the political environment (domestic and international as well as the internal changes of the company).

2.9.1.10 Purchasing Power Risk

It is variability of return an investor suffers because of inflation. Inflation (or a rise in general prices over time) seems to be the normal way of life in most countries today. However, when inflation takes place, financial assets (such as cash, stocks, and bonds) may lose their ability to command the same amount of real goods and services they did in the past. To put this in another way, the real of return on financial assets may not adequately compensate the holder of financial assets may not adequately compensate the holder of financial assets for inflation.

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2.10 NRB Directives to Commercial Banks Relating To Credit

(NRB, Unified Directives, 2006)

2.10.1 Directive Credit

Banks have to extend a certain percentage of loan and advances in the deprived and priority. Currently deprived sector lending should be at least 0.25% to 3% depending on the banks and priority sector lending at least 12% inclusive of deprived sector lending to their total credit portfolio.

In case of shortfall in any sector, the concerned bank has to pay penalty at the highest lending rate of the bank during the shortfall period which is monitored quarterly.

2.10.2 Single Borrower Limit

Single borrower's limit refers to the maximum credit limits that can be extended to a customer, firm, company or companies of the same group. Such limit is currently as under:

- Funded : 25% of Core Capital.
- Non-funded :50% Core Capital.

The bank, where, a single borrower enjoys credit limit more than above should bring it within the limit. If above limit is not observed by a bank, 30% additional risk weight is assigned to such credit portfolio warranting additional capital.

Interest Spread

Weighted interest spread between lending rate and deposit rate should not exceed 5%. Such rate is calculated as under:

$$\text{WALR} = \frac{\text{Interes Income for Six Month}}{\text{Average interest Earning Assets outstanding on the month end of 6 month}}$$

$$\text{WADR} = \frac{\text{Interst Expenses for Six Month}}{\text{Average Deposit Outstanding on the Month end of 6 Month}}$$

WALR= weighted Average Lending Rate.

WADR=Weighted Average Deposit Rate.

Interest Spread= WALR-WADR.

Interest in move in excess of 5% spread on bi-annual basis (Mid January and mid-July) should be retained in the bank as Interest Spread Reserve and no dividend can be given out of this fund. However, this fund is treated as supplementary capital.

Interest Spread limit of 5% was scrapped on 25th July 2002.

Interest Rate

Banks are free to fix interest rate on deposits and loans. Interest rates on all types of deposits and loans should be published in the local newspapers and communicated to NRB minimum on a quarterly basis and immediately when revised. Deviation of 0.5% from the published rate is allowed on all types of loans and deposits.

2.10.3 Loan Classification and Provisioning

A bank is required to classify their loan on the basis of overdue aging schedule and provide on a quarterly basis as follows:

Type	Criteria	Provision Requirement
Pass	Principal overdue up to 3 months	1%
Substandard	Principal overdue up to 6 months	25%
Doubtful	Principal overdue up to 1 year	50%
Bad	Principal overdue above 1 year	100%

Pass loan is called ‘Performing’ and other are called ‘Non-Performing Assets’ provision requirement in case of loan given against personal guarantee only is additional 20% for pass substandard and Doubtful loans. Provision for restructured, rescheduled and swapped loan is 12.5% only.

Provision for Pass Loan made up to 1.25% of total risk weighted assets is treated as supplementary capital. Investment portfolio of the bank should be accounted at market value or cost whichever is less. If investment securities have not been listed in the stock market, 100% provision should be made against such an investment and deposited at 'Investment Adjustment Reserve'***.(Source:*** ***www.nrb.com)***

2.10.4 Sectoral Credit Limit

Credit concentration in one sector increase the risk of a bank. NRB requires banks to monitor its credit portfolio in following ways:

- Level I: Sector where credit of a bank ranges from 50-100% of Core Capital. Bank has to devise a proper Credit Information System to monitor such at least quarterly.
- Level II: Sector where credit of a bank is above 100% of Core Capital. Board of Directors of the bank should decide annually whether it wants/does not want to have credit exposure more than 100% in any sector. Decision of the Board should notify to Banking Operations Department and Supervision and Inspection Department of NRB.

2.11 Reasons for Loan Becoming Bad

One undesirable side effect of current trend in banking is a relatively high bank failure rate. For most of its history, the banking industry experienced an extremely low failure rate (only about 1 or 2 percent of the banking population each year failed) due to extensive regulation and conservative management. However, the number of bank failures and the average size of failing banks advanced sharply in the 1980s, though the failure rate slowed down in the 1990s.

Some analysis argues that even more important is the increased volatility of economic and financial conditions, especially interest rate and the prices of foreign currencies. This volatility has made bank earnings and stock prices more unstable and forced bankers to devote more time to the control and management of risk (Rose,2001:88)

When loans are overdue to repay their specific period then it becomes bad loan. By analyzing various studies, following are some important causes for turning a loan into a bad one.

2.11.1 Lack of Credit policy and Culture

The credit policy generally guides the institution to disseminate and diversify the loans. It also helps in making the decision for whether or not granting the loan to a certain party. Hence a clear and in written form a credit policy is a must. The bank also must have a credit culture. They must not only focus on their loan but also the customer who is taking the loan. The credit team should know each and every loan taker and should watch from near. The bank now is not only the lender it must also act as the financial advisor also to the customer.

In Nepal only few financial institutions have a clear-cut credit policy. At the same credit policy should also be strictly adhered to.

2.11.2 Undue Influence/Pressure

One of the major factors contributing in Banks Non-performing Assets is the undue influence exerted by politician, bureaucrats, board members and senior executives of the bank itself. This is the reasons most of the state owned commercial banks and some private banks have large NPA

2.11.3 Cut Throat Competition

The number of commercial banks is growing rapidly. It is nearly saturated. But the market size is very small and the economic situation is not improving. In such situation, the commercial banks have very less option to invest. Due to this, there is unfair competition exercised by the banks to attract the customer. In such situation, NPA may increase due to sanctioning the loan without studying and analyzing the client properly.

2.11.4 KYC- Know Your Customer

If we don’t know our customer-in terms of his capacity, managerial ability, past tract record, market reputation, and business he is involved and lends him, then the loan extended to. Such a customer may be booked as a “Bad Loan” co-instant, it is disturbed.

2.11.5 Lack of Vision

The success of any organization lies on the ability to think and have long term vision. Creativity is very essential thing for the managers to drive the whole organization to success. The managers should be able to create new products. In Nepal, there is a culture of copying others product. Recently almost all commercial banks are catering consumer loan. Lack of Vision results in investment in those areas which will turn the loan into NPA.

2.11.6 External Factors

There are many external factors that turn a good loan to bad. Economic condition of the country, political situation, technological change, etc, also plays a key role in turning a good loan to bad. We have currently witnesses the closer of the factories in the Terai Region of Nepal due to political instability. This closer of the factories, result in inability to repay loan taken ye the organization although the business man do not intend to be a defaulter.(Source: National Daily Newspapers and Business Magazines).

2.12 Review of Previous Studies

On the way to prepare this research work some books, journals and publications have been studied to formulate ideas about the subject matter. Although, the specific books reading the NPA could not be found, however some banking related books have been consulted.

2.12.1 Review of Articles & Journals

Basyal(2065), discussing about the financial sector reform in his article, *Financial Sector Reform Program in Nepal: Prospects & Challenges* states that the host of challenges and complexities that confront the financial system of Nepal could be categorized as the weak financial position of most of government-owned financial institutions as reflected in their negative net worth & huge accumulated losses, higher portions of NPA, predominance of the informal financial system high interest rate differential between the formal & informal sectors, large interests spread between lending & borrowing rates in the formal financial sector etc, it is estimated that the size of the NPA in the commercial banking is a high as 18% & 50% of this ratio we can found in the two largest banks(RBB & NBL). For resolving this situation the government has initiated FSR program. He argues that the government has a paramount role in building an atmosphere for paving the way for the emergence of professional management & efficient financial operations not only in the institutions owned by it but also in the in the private owned institutions. To tackle this problem, the financial system should be strengthened by improving its regulatory & supervisory system. He explains the FSR strategy should ensure that financial institution is run in accordance with the sound business principals & practices. The central bank's capability for effective supervision of the financial institutions should be enhanced. Similarly, financial discipline based on adequate provisions of disclosure & implementation of internationally recognized accounting and auditing practices and system should be ensured. Competition oriented policies should be pursued along with strong regulatory supervisory framework to enhance financial sector efficiency and effectiveness.

He gives an example of Asian crisis of 1997-98 and suggests taking lessons from it. The crisis seriously affects the financial system and economic stability of the region. Large currency depreciation, capital market collapses, large scale bankruptcies, swollen NPA level of the financial system, negative economic growth rate, massive unemployment, disrupted social services, dwindled investor confidence and sharp reduction in the general standard of living were the immediate effect of crisis. It is commonly believed that one of the critical factor behind the crisis was the absence equate central banking autonomy which substantially reduce the efficiency and effectiveness of the central banking functions and responsibilities. He suggests the concerned parties should review the measure they taken for solution of the crisis.

Pradhan, (2058), in his article, *NPA: Some Suggestions to tackle them***,** found that unless the growth of NPA is kept in control, it has the potential to cause systematic crisis. He has mentioned that a dream of globalization led to huge investment which unfortunately could not be utilized properly due to hesitant liberalization polices. Large corporate misused the credits and delayed payments and contributed indirectly for enhancing NPA ratio. He further argues that lack of vision in appraisal of proposal while loan sanctioning, reviewing or enhancing credit limits, absence of risk management policy of financing, concentration of credit in few group of parties and sector, lack of initiatives to take timely action against willful defaulters, indecision on existing out of bad loans for fear of investigation agencies like special police CIAA, public accounts committee of the parliament have also contributed in whatsoever measures to the worsening situation on NPA front. He further pointed out that most crucial reason for the increase in the NPA is the shabby and defaulter friendly legal system. Suggesting the remedy of NPA, he adds that Administrative system should be strengthened. Legal reforms should be made and assets Reconstruction Company should be formed.

Professor Bishwambher Pyakuryal (2001) has stated in his article entitled *our Economy is in a Volatile Stage*, that the banks have not able to collect their overdue due to the increasing cumulative NPAs in Nepalese commercial banks. There is no additional demand of the investment due to the higher risk and Present uncertainty. According to his article, revenue collection was negative and regular expenditure was higher than the revenue during that time which indicated volatility of the economy. Even before the declaration of emergency, the government didn't have surplus revenue to pay for the remuneration and benefits of retired civil servants. Up to 65% of the country's development expenditure was being financed by foreign aid. He also predicted that if Nepal couldn't meet the regular expenditure through its revenue, it would be very difficult to convince the donor community. This could push the society toward what is called a 'mass unrest society.' He also added the need to establish some kind of Asset Management Company to take over the non-performing assets (NPAs) of the government-owned banks.

Dhungana (2063), in his well article, *Problems of NPL's and the need of Financial Discipline in the Nepalese Banking System*, has concluded that poor credit management and deterioration in the quality of loans give birth to non-performing assets. The internal measures play significance role to control the growth of NPL. Best credit practices, culture and policies are required to strengthen the internal factors. The banks should have a proper system and competency on risk management and should ensure that risk are accurately identified, assessed and controlled properly. A proper risk management is un doubly an important tool for a good banking and NPL management.

He further states that it can be expected that the financial sector reforms will lower down the level of NPL from the existing level and strengthening the banks and financial institution internally to manage the credit portfolio efficiently and support will be continued to make a good credit culture in the system.

Narayan Sapkota (2004) in his article published on 19th May 2004 in "*Rajdhani National Daily"* entitled, *Portion of NPA in Commercial Banks-High in Public, Low in Private,* has highlighted the fact of NPA as being less in private banks in comparison to public hanks. He has mentioned that the NPA of two big nationalized banks (NBL and NBB) was about 60% and the loans were in very serious situation. He further added that in order to improve this situation and to make healthy banking environment, financial reform program had been brought: as its consequences, the management of these two big banks was handed to foreign company on a contract but the ration of NPL was not reduced.

While most of the privately owned banks had NPA within international standard, some had it above that standard. As per international standard 5% APA was acceptable during 2004. He also mentioned the average NPA of the Nepalese banking sector to be 30% which is very high. (Source: previous thesis.)

2.12.2 Review of Unpublished Thesis

For the purpose of this study, relevant thesis works regarding several aspects of banking sectors conducted by different intellectuals and students are discussed below:

Dirga Narayan Kafle(2005) on "*Non Performing Loans of Nepalese Commercial Banks"*, devised following major findings and suggested following major recommendations to be adopted in order to decrease the level of NPA and increase the efficiency of the commercial banking industry.

Major findings:

- The return on assets (ROA) and return on equity (ROE) of the bank somehow depend upon Non-performing Loan. The bank should reduce its NPL to increase ROA and ROE if the bank.
- Management inefficiency is one of major cause behind high level of NPA of commercial banks.

Major Recommendations:

- Those banks having high level of NPL should take should take immediate action. The bank should dispose of the collateral taken from the borrower and recover principal and interest amount.
- Corporate structure of the banks play key role in the effective loan management. There should be separate department for credit appraisal, documentation, disbursement, relationship maintenance and inspections.
- Maintenance efficiency should be enhanced. Hence necessary trainings should be given to the managers and staffs.

Niranjan Shrestha (2007) in his research*:Non Performing Assets of Commercial Banks*, made following major findings and advised following major recommendations:

Major Findings:

- The result shows significant difference in NPA of commercial banks and international standard of 4%.
- High degree of negative correlation exists between NPA with ROA and ROE. The banks should reduce their level of NPA to increase ROA, ROE and profitability.
- Management in efficiency is one of the major causes high level of NPA of commercial banks.

Major Recommendations

- Follow the regulation of Nepal Ratra Bank.

- Those banks having high level of NPA should take immediate action. The bank should dispose of the collateral taken from the borrower and recover principal and interest amount.
- Formation of assets Management Company is necessary.

Rajesh Bhandary (2004) titled Analysis of Non Performing Assets of Commercial Banks of Nepal, he found following major findings and suggested following major recommendations.

Major findings:

- There is negative correlation exists between NPA with ROA and ROE.
- The external factors are major contributing for the growth of NPA in any banks. Political and economic situation of the country and borrower related factors were found most crucial in the conversion of good loans into bad.
- Lack of asset management company, Execution of the court proceeding and cumbersome legal procedure and economic recession and political instability are major problems associated with the management of NPA.

Major Recommendations

- Formulation of NPA management committee and reviewing of its performance on monthly basis may bring the color in the management of NPA.
- Approaching to loan recovery tribunal for dispose of bad loans from loan portfolio.
- All banks should make initiative towards the establishment of Assets Management Company so that bad loans of the banks could be removed from the Balance Sheet.

Adhikari (2068) in his study entitled, *evaluating the financial performance of Nepal Bank Limited,* has calculated and analyzed the different ratios by observing figures of balance sheets of Nepal Bank Limited for the period FY 2038/39 to 2049/50. He remarked that the bank is not found to have been able to utilize its fund effectively and efficiently for the development of the economy.

His Main Objectives are as follows:

- To examine the Evaluating the financial performance of Nepal Bank Limited.
- To calculated and analyzed the financial and statistical tools by using secondary and primary data.

His Research Methodologies are as follows:

The research is analyzed by using different types of tools. For this study following statistical tools and financial tools are use such as Loans and advances to Total Risk, Weighted Assets Ratio, Non-performing Loan to Total Loans and advances Ratio, Loan Loss Provision to Non Performing, Loan Ratio Loan Loss Provision to Total Loans and Advances, Arithmetic mean, standard Deviation, Correlation Coefficient, Probable Error, Regression Analysis and Test of Hypothesis.

His Major findings are as follows:

- The collection of deposit and loan investment done by the commercial banks also to sustain themselves in the environment of competitions.
- The deposit funds in productive sectors and to grants more priority to the local manpower.
- Economic development of a country cannot be imagined without the development of commerce and industry
- He has focused on utilization and mobilization of funds and resources of Nepal Bank Ltd

Mandal (2064) in his thesis paper, *Comparative financial performance appraisal of joint venture banks,* has studied mainly three banks i.e. Nepal Arab Bank Ltd (NABIL), Nepal Indosuez Bank Ltd.(NIBL), and Nepal Grindlays Ltd. (SCBNL). His main finding is that both SCBNL and NABIL have mobilized the debt funds in proper way for generating more return but NIBL could not do so as good as NABIL and SCBNL. He has recommended enhancing banking facilities in rural areas by encouraging small entrepreneurs development programmers, to play merchant banking role to mobilize.

His Main Objectives are as follows

- To analyze the lending practices and resources utilizations of NB bank.
- To examine the correlation and the signification of their relationship between Different ratios related to capital structure.

His Research Methodologies are as follows

In this research, data are analyzed by using different types of tools. As per topic requirements, emphasis is given on statistical tools rather than financial tools. So for this study following statistical tools and financial tools are use such as Loans and advances to Total Risk Weighted Assets Ratio, non-performing Loan to Total Loans and advances Ratio, Loan Loss Provision to Non Performing Loan, Arithmetic Mean Standard Deviation and Hypothesis Test.

His Major Findings are as follows:

- Hence, the bank has been suggested to manage its investment portfolio Efficiency.
- Operational efficiency of the bank is indicate by the operational loss has been found unsatisfactory.

Tuladhar (2065) on his thesis entitled, *A study on Investment policy of Nepal Grindlays Bank Ltd. in comparison to other Joint Venture Banks (NABIL and HBL).* The study found that NGBL has been successful to maintain in the best way both liquidity position and their consistency among three banks. Profitability position of NGBL is better than NABIL and HBL.

His Main Objectives are as follows:

- To analyze the impact of investment policy selected commercials banks.
- To examine the correlation and the signification of their relationship between different ratios related to capital structure.

His Research Methodologies are as follows:

In his thesis the data are analyzed by using different types of tools. As per topic requirements, emphasis is given on statistical tools rather than financial tools. So for this study following statistical tools and financial tools are use such as Debt to Equity ratio, Debt Ratio Interest Coverage Ratio, Earnings per Share, Price Earnings Ratio, Return on Total Assets, Return on Share Holder's Fund or Equity, Arithmetic means, Standard Deviation and Correlation Coefficient.

His Major Findings are as follows:

- On the basis of this feedback information, regular changes or implementation of new rules and regulations can be easily carried out.
- NRB should also encourage frequent training to new entrants to provide orientation on the conceptual dimensions and practical aspects of operation of the banks
- Constraints of socio- economic political system on one hand and that of issues and challenges of JVBs commanding significant banking business of other spectrum
- The collection of deposit and loan investment done by the commercial banks also to sustain themselves in the environment of competitions
- They should introduce novel technology and equipment’s to collect deposit.

2.13 Research Gap

There is a certain gap between the present researches. Previous researchers are done in this topic called "Non-Performing Assets". Previously many researches were done by using secondary data. The information of this very research is also based on secondary data, but many effective tools and techniques are used to get the desired result as per the objectives of this study. To analyze the facts financial tools as well as statistical tools are used to desire objectives of the study. Financial tools include ratio analysis and the statistical tools include mean, standard deviation, coefficient of variation, correlation of coefficient analysis and also include trend analysis.

CHAPTER-III

RESEARCH METHODOLOGY

3.1 Background

Research is a systematic inquiry of any particular topic and methodology is the method of doing research in well manner and human nature's get satisfied with the same thing that regularly takes place for a long time. They are always curious to learn, understand or investigate when some particular things happens or happened. Why did the things happen or do they happen? How did they happen or how do they happen? They are not satisfied till they solve the question and develop the form of their beliefs or judgment about those particular phenomena. For this they gather the information and analyze them to achieve their goal. The method that applies during this knowledge gaining research is known as research methodology means the analysis of specific topic by using a proper method. In other words, research methodology is a systematic study of the research problem that solves them with some logical evidence. The population and sample, source and data collection techniques, and data analysis tools and the hypothesis to be tested, which are associated with the study, have been discussed in this chapter.

3.2 Research Design

"Research design is a plan, structure and strategies of investigation conceived so as to obtain answer to research question and control variance. The plan mean now researcher investigator collect the data structure in term controlling the data in term of money and time." We can say that the research design is specification of methods and procedures for acquiring the information needed. It is the plan, structure and strategy of investigation conceived so as to obtain answer to research question and to control' variances. It is the overall operational pattern of framework of the projects that stipulates what information is to be collected from which sources by what purpose.

The main objective of research design is to make analysis in non-performing assets of commercial banks in Nepal and provide valuable recommendation. In other words, this research is aimed at studying the non performing assets of commercial banks. This will follow analytical and descriptive research design. And it also analyzes the composition of non-performing assets, loan recovery and profitability condition of commercial banks. The design for this research is made by financial statistical tools. So it can be also called roadmap for Research study or blueprint of the study. The Research Design is the overall operational pattern of frameworks of the project that stipulates what information is to be collected, from which source, by what procedures, how to conduct analysis, etc. The research design of this study is analytical as well as descriptive. This study is the evaluation of Non Performing Assets (NPA) of commercial banks of Nepal.

3.3 Population and sample

The term ‘population’ for research means all the member of any well defined class of people, event or object. It means that the entire group of people, events or things of interest that a researcher wished to investigate. A representative part of population selected from it with the objection of investigation its propertied is called sample. For purpose of study, the random sampling had been used to analysis about total member number and inters group number.

The commercial banking industry is the population of this research. Currently there is all together 32 commercial banks operating in Nepal and out of them, two banks are taken as sample for this study. Since profitability is a factor related to NPA of banks, it was taken as the basis for taking sample. Profitability was linked with the market share value of the banks. Some of the banks in the sample have high market share representative to the extent possible to the commercial banking industry of Nepal.

3.4 Types and Sources of Data

For the purpose of analysis in this research, manly the secondary data will be used. The facts and figures provided by the banks will be taken into consideration. But some data which are not published will be directly collected from the bank. The bank professionals will also be interrogated wherever needed. The main source of data is the annual reports published by the banks. The statistical reports of the NRB are also the main source.

Furthermore the publications of Ministry of Finance (MOF), Security Exchange Board of Nepal (SEBON), unpublished thesis and journals, different web sites, libraries etc. And other data published in the Newspaper and Magazines are also used.

3.5 Data Collection Techniques

In order to collect the data annual report published by the commercial banks and Nepal Rastra Bank (NRB), economic report and other published statistical are collected. Data from such reports are used in this study and obtain the additional information, informal talk made with bank personals. Similarly information is collected from Newspaper, Magazines, Web sites, bulletin, booklets and journal published from relative banks.

3.6 Data Analysis Tools

For the fulfillment of the study objectives various financial tools as well as statistical tools have been employed. The description of financial tools as well as statistical tools is described below.

3.6.1 Statistical Tools

The statistical tool is essential to measure the relationship of two or more variable. It is the mathematical technique used to facilitate the analysis and interpretation of the performance of the organization. It helps to compare the performance, strengthen, weakness of the organization. It also helps to present the data, show the relation and deviations or differences of variables of organizations. In this study, the following statistical Tools are used:

3.6.1.1 Mean (Average)

Mean is defined as sum of observations divided by their number in the selected sample. It is the popular measure for representing the entire data. It is the average of the data. It is further used in many statistical and financial analysis tools

Mean $X \quad = \frac{\sum X}{n}$

Where,

$\sum$X = Sum of Variable 'X'

n= No. of observation

3.6.1.2 Correlation Analysis

Correlation coefficient is defined as the association between the dependent variable and independent variable. It's a method of determining the relationship between these two variables. If the two variables are so related change in the value of independent variable cause the change in the dependent variable then it is said to have correlation coefficient (Sunity and Silwal:325)

The most widely used in practice for calculating correlation coefficient between two variables is "Karl Person's correlation coefficient." The correlation coefficient between two variables X and Y , usually denoted by r (X,Y) or r_{xy} simply r, is a numerical measure of linear relationship between them and is defined as

r_{12} = Correlation coefficient between $X_1$and X_2

Where,

R=Correlation co-efficient

N=Total no. of year

X=Dependent Variable

Y=Independent Variable

The value of r lies between-1 and +1 symbolically.

-1

The correlation coefficient is systematic in two variables, i.e. r'(It can be verified by exchanging X and Y in the formula). It is a pure number independent of the unit of measurement.

Interpretation of correlation coefficient

- When r=+1, there is perfect positive correlation.
- When r=-1, there is perfect negative correlation.
- When r=0, there is no correlation.
- When r lies between 0.7 and 0.999 (-0.7 to-0.999) there is a high degree of positive (or negative) correlation.
- When r lies between 0.5 and 0.699 (-0.5 to -0.699) there is a moderate degree of positive (or negative) correlation.
- When r is less than 0.5, there is low degree of correlation.

3.6.2 Financial Tools

"Financial analysis is the process of identifying the financial strength and weakness of the firm by properly establishing relationship between the item of balance sheet and profit & loss account." (pandey, 2000: 108) while adopting financial tools, a ratio is used as benchmark for evaluating the financial position and performance of any firm, "Financial analysis is the use of financial statement to analyze a company's financial position and performance and to assess future financial performance." (Wild, Subramanian and Halsey, 2003:13)

3.6.2.1 Trend Analysis

In this analysis the past trend is analyzed of any data and future movement is predicted. Technical analysis presents the past data in the charts and predicts the patterns of future. It shows where the organization is going in that particular matter of analysis. In the technical different charts and picture are used which makes it simple to understand. It is used to analyze the data as well as to present the data. *(Francis, 1998:98)*

3.6.2.2 Ratio Analysis

Ratio analysis is the most effective tool of financial analysis. It is the widely used tool in financial analysis. A ratio simply shows the relationship between the two variables or one another. It presents the relative strengths and weakness of any firms or organization and financial performance of the organization. It summaries the financial figurer and make quantitative judgment about the financial performances and positions. The relationship between two accounting figures expressed mathematically is known as financial ratio *(Pandey, 2000:108).* To make analysis, we can use various ratios. But only those ratios have been calculated which are related to the subjects matter.

a. Net Profit to Loan Advances=$\frac{Net\ Profit}{Loan\ \&\ Advance} \times 100\%$

b. NPA to Loan and Advances= $\frac{NPA}{Loan\ \&\ Advance} \times 100\%$

It is the percentage of Non-Performing Loan and Advances. It shows how much of the total loan and advances are not performing well.

Return in Equity (ROE)

This ratio assesses the effectiveness of the management with respect to both its operating and financing decisions. (Pradhan, 2004:59)

$$ROE = \frac{Net\ Income}{Common\ Equity} \times 100\%$$

Return on total Assets (ROA)

This ratio measures the return on total assets after interest and taxes

$$ROA = \frac{Net\ Income}{Total\ Assets} \times 100\%$$

These three Net Profit Ratio, ROA and ROE are used to check the profitability of the firm. It measures the efficiency and effectiveness of the firm's management

CHAPTER-IV

DATA RESENTATION AND ANALYSIS

4.1 Analysis and Presentation of NPA

In this chapter, efforts have been made to present and analyze the collected data. This is the main part of the research. It is the body of the report. Data collected from various sources were classified and tabulated as requirement of the study and in accordance to the nature of the data. Different statistical and financial tools are used to analyze the data collected under the study. To make easier and clearer to the understanding of the study, data are presented in the table and figures also.

In the category of loan. Pass loan is called performing assets and other i.e. substandard doubtful and loss loan are called Non-Performing Assets.

Data for five fiscal years have been presented starting from 2006/07 to 2010/1011 to study and analyze the level of NPA. In this chapter conclusion is drawn regarding position of NPA of sample bank. Various factors contributing for NPA, impact of NPA on profitability and other suggestive measure for the management and mitigation of NPA’s. To study about NPA ration. Analysis, trend Analysis Correlation analysis and opinion survey is done.

4.2 Analysis and Presentation of NPA

An NPA is defined as an asset non-contribution to the income if the bank. NPA analysis is one of the major aspects of this study that analyzes the level of NPA of NABIL Bank Limited, Nepal Investment Bank Limited and Everest Bank Limited. While analyzing the NPA two categories of NPA are analyzed, one is Gross NPA and other is Net NPA.

4.2.1 Analysis of Gross NPA

Gross NPA is the total of those loans and advances which are due for more than 90 days. More specifically they are the sum total of loans and advances categorized as substandard, doubtful and loss according to NRB directives. Since, the NPAs are the part of the bank's assets; they are analyzed with respect to total assets and total loan.

Table no.: - 4.1

Gross NPA Level of NABIL

(Rs.in millions)

Fiscal Year	2006/7	2007/8	2008/9	2009/10	2010/11			
Total Assets	27253	37133	43867	52152	58141			
Total Loan	15903	21365	27590	32269	38034			
Total NPA	178	171	221	474	689	Mean	S.D	C.V
NPA As % of T.A	0.65	0.45	0.50	0.91	1.16	0.734	0.27	0.36
NPA As % of T.L	1.12	0.79	0.8	1.47	1.77	1.19	0.38	0.32

Source: Annual Report of NABIL Bank Ltd

During the study period, Gross NPA with respect to total assets of NABIL is ranges from 0.45 to 1.16 with average mean, S.D. and C.V. of 0.734, 0.27 and 0.36 respectively. These statistical figures impel us to conclude that gross NPA with respect to total assets of NABIL Bank Limited is in increasing trend in 2006/07 to 2010/11.

Similarly, Gross NPA with respect to total loan of NABIL is ranges from 0.79 to 1.77 with average mean, S.D. and C.V. of 1.19, 0.38 and 0.32 respectively. These statistical figures impel us to conclude that gross NPA with respect to total loan of NABIL is in decreasing trend but in 2009/10 to 2010/11 slightly increase than 2008/9. In conclusion, we found that NABIL average NPA ratio as a % of Total Loan is 1.19% which is under the criteria of NRB Directives issuing for commercial banks for managing NPA.

Table no. :- 4.2

Total Assets, Total Loan and Total NPA of NABIL

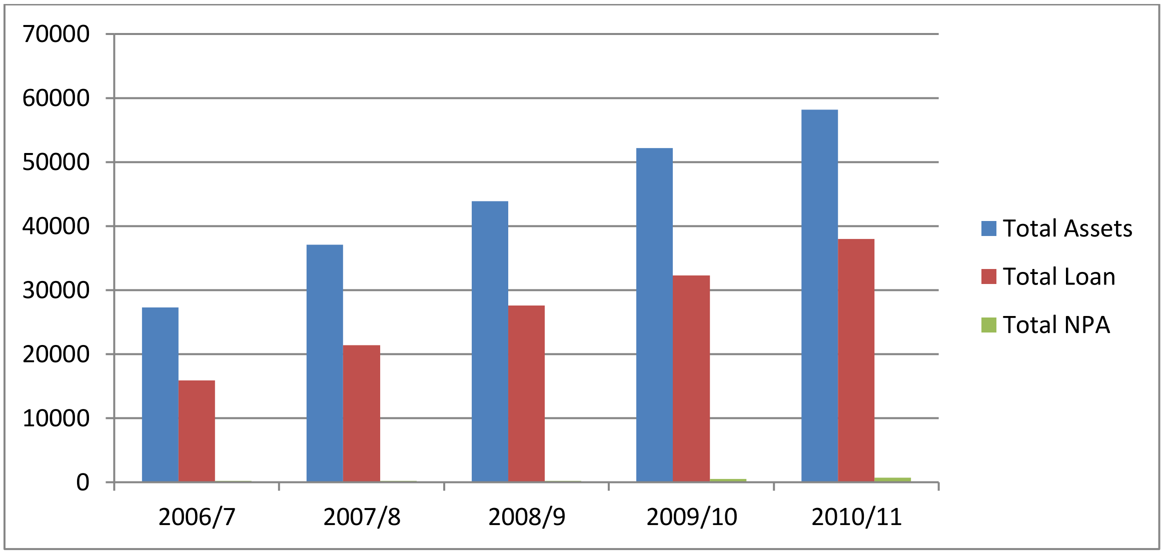
(Rs.in millions)

Fiscal Year	Total Assets	Total Loan	Total NPA
2006/7	27253	15903	178
2007/8	37133	21365	171
2008/9	43867	27590	221
2009/10	52152	32269	474
2010/11	58141	38034	689

Source: Annual Report of NABIL

Figure no. 4.1

Total Assets and Total loan of NAIBL Bank



From the above table and figure, we depict that total assets of the bank are in increasing trend. Likewise, total loan and Non-Performing Assets of the bank also is in increasing trend.

Table no: - 4.3

Gross NPA Level of NIBL

(Rs. in millions)

Fiscal Year	2006/7	2007/8	2008/9	2009/10	2010/11			
Total Assets	27591	38873	53011	57305	58357			
Total Loan	17769	27529	36827	40948	41887			
Total NPA	421	308	214	254	394	Mean	S.D	C.V
NPA As % of T.A	1.53	0.79	0.40	0.44	0.67	0.766	0.41	0.53
NPA As % of T.L	2.37	1.12	0.82	0.46	0.59	1.072	0.69	0.64

Source: Annual Report of NIBL

During the study period, Gross NPA with respect to total assets of NIBL is ranges from 0.40 to 1.53 with average mean, S.D. and C.V. of 0.766, 0.41 and 0.53 respectively. These statistical figures impel us to conclude that gross NPA with respect to total assets of NIBL is in decreasing.

Similarly, Gross NPA with respect to total loan of NIBL ranges from 0.46 to 2.37 with average mean, S.D. and C.V. of 1.072, 0.69 and 0.64 respectively. These statistical figures impel us to conclude that gross NPA with respect to total loan of NIBL is in decreasing trend. In conclusion, we found that NIBL average NPA ratio as a % of Total Loan is 1.072% which is under the criteria of NRB Directives issuing for commercial banks for managing NPA.

Table no. :- 4.4

Total Assets, Total Loan and Total NPA of NIBL

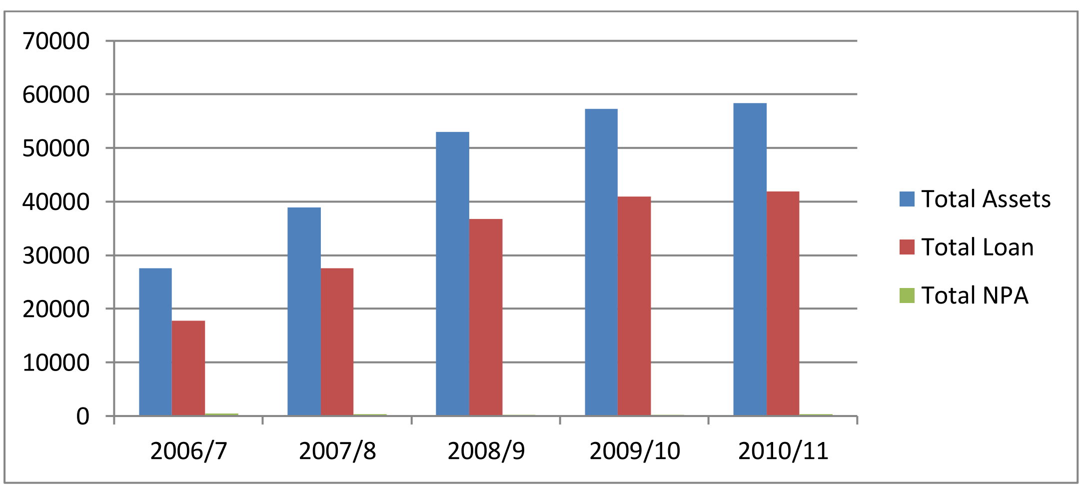
(Rs. in millions)

Fiscal Year	Total Assets	Total Loan	Total NPA
2006/7	27591	17769	421
2007/8	38873	27529	308
2008/9	53011	36827	214
2009/10	57305	40948	254
2010/11	58357	41887	394

Source: Annual Report of NIBL

Figure no:-4.2

Total Assets and Total Loan of NIBL



From the above table and figure, we depict that total assets of the bank are in increasing trend. Likewise, total loan of the bank also is in increasing trend and Non-performing assets of the bank is in fluctuating trend (in 2007/8 to 2009/10 decreasing trend but in 2010/11 slightly increase).

Table no:- 4.5

Gross NPA Level of EBL

(Rs. In millions)

Fiscal Year	2006/7	2007/8	2008/9	2009/10	2010/11			
Total Assets	21433	27149	36917	41383	46236			
Total Loan	13664	18339	23885	27556	31058			
Total NPA	109	125	115	121	106	Mean	S.D	C.V
NPA As % of T.A	0.51	0.46	0.31	0.29	0.23	0.36	0.11	0.30
NPA As % of T.L	0.80	0.64	0.48	0.16	0.34	0.484	0.22	0.46

Source: Annual Report of EBL

During the study period, Gross NPA with respect to total assets of EBL is ranges from 0.23 to 0.51 with average mean, S.D. and C.V. of 0.36, 0.11 and 0.30 respectively. These statistical figures impel us to conclude that gross NPA with respect to total assets of EBL is in decreasing.

Similarly, Gross NPA with respect to total loan of EBL is ranges from 0.16 to 0.80 with average mean, S.D. and C.V. of 0.484, 0.22 and 0.46 respectively. These statistical figures impel us to conclude that gross NPA with respect to total loan of EBL is in decreasing trend. In conclusion, we found that EBL average NPA ratio as a % of Total Loan is 0.484% which is under the criteria of NRB Directives issuing for commercial banks for managing NPA.

Table no :- 4.6

Total Assets, Total Loan and Total NPA of EBL

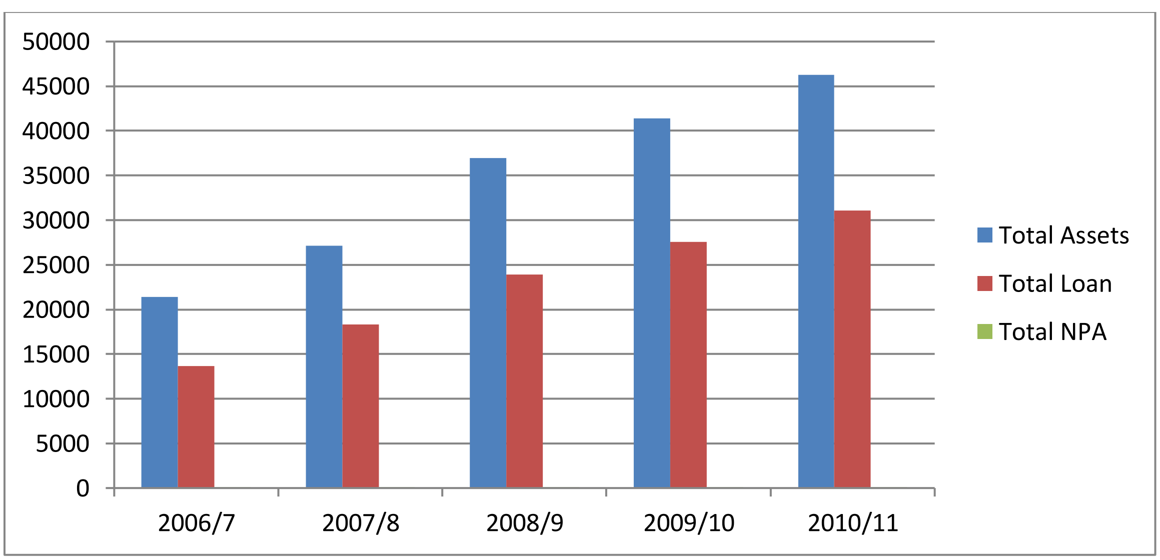
(Rs. in millions)

Fiscal Year	Total Assets	Total Loan	Total NPA
2006/7	21433	13664	109
2007/8	27149	18339	125
2008/9	36917	23885	115
2009/10	41383	27556	121
2010/11	46236	31058	106

Source: Annual Report of EBL

Figure no: - 4.3

Total Assets and Total Loan of EBL



From the above table and figure, we depict that total assets of the bank are in increasing trend. Likewise, total loan of the bank also is in increasing trend and Non-performing assets of the bank is in fluctuating trend.

4.2.2 Analysis of Net NPA

Net NPA is the value of loans after subtracting specific provisioning from gross amount of NPA. Net NPA reflects the actual position of bad loan on the total loan portfolio. Net NPA is also analyzed with respect to total assets and total loans.

Table no:-4.7

Net NPA Level of NABIL

(Rs. in millions)

Fiscal Year	2006/07	2007/08	2008/09	2009/10	2010/11			
Total Assets	27253	37133	43867	52152	58141			
Total Loan	15903	21365	27590	32269	38034			
Total NPA	178	170	221	474	673			
Provisioning For NPA	14	64	45	355	109			
Net NPA	164	106	176	119	564	Mean	S.D	C.V
Net NPA as % of T.A	0.60	0.29	0.40	0.23	0.97	0.498	0.27	0.54
Net NPA as % of T.L	1.03	0.496	0.64	0.37	1.48	0.80	0.405	0.50

Source: Annual Report of NABIL

From the above table, it is found that net NPA ratio as percent of total assets of NABIL is ranging from 0.23 to 0.97 while expressing net NPA with respect to total loans if ranges from 0.37 to 1.48 during the study period. Average mean, S.D and C.V of net NPA with respect to total assets are 0.49, 0.27 and 0.54 respectively. It concludes that during the study period, net NPA ratio as % of total assets of NABIL is in decreasing trend but in 2010/11 slightly increase than 2009/10. Similarly, net NPA ratio as % of total loans is also decreasing trend but in 2010/11 slightly increase than 2009/10. NPA level of NABIL meets the criteria according to NRB's Directives.

Table no:- 4.8

Net NPA Level of NIBL

(Rs. in millions)

Fiscal Year	2006/07	2007/08	2008/09	2009/10	2010/11			
Total Assets	27591	38873	53011	57305	58357			
Total Loan	17769	27529	36827	40948	41887			
Total NPA	421	308	214	254	394			
Provisioning For NPA	129	135	166	93	267			
Net NPA	292	173	48	161	127	Mean	S.D	C.V
Net NPA as % of T.A	1.06	0.45	0.09	0.28	0.22	0.42	0.34	0.81
Net NPA as % of T.L	1.64	0.63	0.13	0.23	0.30	0.58	0.55	0.94

Source: Annual Report of NIBL

Form the above table, it is found that net NPA ratio as % of total assets ranges from 0.09 to 1.06 and average mean, S.D and C.V of net NPA is 0.42, 0.64 and 0.81 respectively during the study period. While expressing net NPA with respect to total loans it comes within the range of 0.13 and 1.64. Average mean, S.D and C.V of net NPA with respect to total loan is 0.30, 0.58 and 0.94 respectively. During the study period net NPA as % of total assets is in decreasing trend expect of fiscal year 2007/8 and net NPA as % of total loan is also in decreasing trend expect in fiscal year 2007/8.

Table no:- 4.9

Net NPA Level of EBL

(Rs. in millions)

Fiscal Year	2006/07	2007/08	2008/09	2009/10	2010/11			
Total Assets	21433	27149	36917	41383	46236			
Total Loan	13664	18339	23885	27556	31058			
Total NPA	109	125	115	121	106			
Provisioning For NPA	89	99	93	77	98			
Net NPA	20	26	22	44	8	Mean	S.D	C.V
Net NPA as % of T.A	0.093	0.096	0.06	0.11	0.017	0.0752	0.033	0.44
Net NPA as % of T.L	0.146	0.142	0.092	0.016	0.026	0.084	0.059	0.71

Source: Annual Report of EBL

Form the above table, it is found that net NPA ratio as % of total assets ranges from 0.017to 0.11 and average mean, S.D and C.V of net NPA is 0.075, 0.033 and 0.44 respectively during the study period. While expressing net NPA with respect to total loans it comes within the range of 0.0.016 to 0.146. Average mean, S.D and C.V of net NPA with respect to total loan is 0.084, 0.059 and 0.71 respectively. During the study period net NPA as % of total assets is in decreasing trend expect of fiscal year 2007/8 and net NPA ratio as % of total loan is also in decreasing trend expect in fiscal year 2007/8.

4.2.3 Analysis of NPA with Respect to Loan Loss Provisioning

Loan loss provisioning is a vehicle to adjust in the loss arises from the gone loan. Higher amount of provisioning indicates that the bank is maintaining sufficient cushion for the loss that could be arise in future. Analysis of NPA with respect to provisioning reflects that the position of future loss that could be arising from the further degradation of loan.

Table no:- 4.10

Analysis of NPA with Respect to Loan Loss Provisioning of NABIL

(Rs. in millions)

Fiscal Year	2006/07	2007/08	2008/09	2009/10	2010/11			
Provisioning for Loan Loss	357	394	409	762	871			
Total NPA	178	170	221	474	673	Mean	S.D.	C.V.
Loan Loss Provisioning as a % of NPA	49.86	43.15	54.03	62.60	77.27	57.38	11.77	0.21

Source: Annual Report of NABIL

During the study period, amount of loan loss provisioning over the total NPA of NABIL ranging from 43.15 to 77.27. Average mean, S.D and C.V of loan loss provisioning to NPA is found that 57.38, 11.77 and 0.21 respectively. This statistical figure impels us to conclude that of total 57.38 of NABIL is secured by loan loss provisioning. There is increasing trend is the growth of loan loss provisioning with respect to portion of NPA.

Table no:- 4.11

Analysis of NPA with Respect to Loan Loss Provisioning of NIBL

(Rs. in millions)

Fiscal Year	2006/07	2007/08	2008/09	2009/10	2010/11			
Provisioning for Loan Loss	129	135	167	93	267			
Total NPA	421	308	214	254	394	Mean	S.D.	C.V.
Loan Loss Provisioning as a % of NPA	326	236	128	273	147	222	74.93	.34

Source: Annual Report of NIBL

During the study period, amount of loan loss provisioning over the total NPA of NIBL ranging from 128 to 326. Average mean, S.D and C.V of loan loss provisioning to NPA is found that 222, 74.93 and 0.34 respectively. This statistical figure impels us to conclude that of total 222 of NIBL is secured by loan loss provisioning. There is more fluctuating trend is the growth of loan loss provisioning with respect to portion of NPA.

Table no:- 4.12

Analysis of NPA with Respect to Loan Loss Provisioning of EBL

(Rs. In millions)

Fiscal Year	2006/07	2007/08	2008/09	2009/10	2010/11			
Provisioning for Loan Loss	84	98	93	77	56			
Total NPA	109	125	115	121	106	Mean	S.D.	C.V.
Loan Loss Provisioning as a % of NPA	129	127	123	157	189	145	25.07	0.17

Source: Annual Report of EBL

During the study period, amount of loan loss provisioning over the total NPA of EBL ranging from 123 to 189. Average mean, S.D and C.V of loan loss provisioning to NPA is found that 145, 25.07 and 0.17 respectively. This statistical figure impels us to conclude that of total 145 of EBL is secured by loan loss provisioning. There is more fluctuating trend is the growth of loan loss provisioning with respect to portion of NPA.

4.2.4 Analysis of Net NPA with Respect to Gross NPA

This is the very important ratio in the analysis of NPA. As Net NPA is the amount of loans and advances against which there is no provision maintained. This ratio helps to analyze how much NPA is not protected out of the total NPA by means of provisioning. Higher of this ratio is considered dangerous from the viewpoint of further provisioning in coming future. This is analyzed on the table given below.

Table no:-4.13

Analysis of Net NPA with Respect to Gross NPA of NABIL

(Rs. In millions)

Fiscal Year	2006/07	2007/08	2008/09	2009/10	2010/11			
Net NPA	164	106	176	119	564			
Gross NPA	178	170	221	474	673	Mean	S.D.	C.V.
Net NPA ratio as % of Gross NPA	92.13	62.35	79.63	25.11	83.80	68.60	23.81	0.35

Source: Annual Report of NABIL

From the analysis, part of Net NPA of out of gross NPA of NABIL is ranging from 25.11 to 92.13 during the study period. Average mean, S.D and C.V are 68.60, 23.81 and 0.35 respectively. This statistical figure suggests us to conclude that in average of 68.60% NPA of NABIL is not secured by means of provisioning. Net NPA with respect to total NPA are slightly fluctuating during the study period

Table no:- 4.14

Analysis of Net NPA with Respect to Gross NPA of NIBL

(Rs. in million)

Fiscal Year	2006/07	2007/08	2008/09	2009/10	2010/11			
Net NPA	292	173	48	161	127			
Gross NPA	421	308	214	254	394	Mean	S.D.	C.V.
Net NPA ratio as % of Gross NPA	69.35	56.17	22.43	63.38	32.23	48.71	18.22	0.37

Source: Annual Report of NIBL

Analyzing above table, it is found that of Net NPA of out of gross NPA of NIBL is ranging from 22.43 to 69.35 during the study period. Average mean, S.D and C.V are 48.71, 18.22 and 0.37 respectively. This statistical figure suggests us to conclude that in average of 48.71% NPA of NIBL is not secured by means of provisioning. Net NPA in decreasing trend in 2006/7 to 2009/10 and increasing in 20010/11 during the study period

Table no:- 4.15

Analysis of Net NPA with Respect to Gross NPA of EBL

(Rs. in millions)

Fiscal Year	2006/07	2007/08	2008/09	2009/10	2010/11			
Net NPA	20	26	22	44	8			
Gross NPA	109	125	115	121	106	Mean	S.D.	C.V.
Net NPA ratio as % of Gross NPA	18.35	20.8	19.13	36.36	7.55	20.444	9.23	0.45

Source: Annual Report of EBL

From the analysis, part of Net NPA of out of gross NPA of EBL is ranging from 7.55 to 36.36 during the study period. Average mean, S.D and C.V are 20.44, 9.23 and 0.45 respectively. This statistical figure suggests us to conclude that in average of 20.44% NPA of EBL is not secured by means of provisioning. Net NPA with respect to total NPA are fluctuating during the study period.

4.3 Trend Percentage (Index Number) Analysis

This analysis is useful to measure the relative change in the value of the variables in any given period is called the “current period” with respect to its value in same fixed period called the “based period”. Index number is a tool which is used to study the direction of some particular change in phenomena. To get objectives of research trend percentage analysis of loan, NPA provisioning is done on the following way.

4.3.1 Analysis of Trend Percentage of Total Loans

This analysis is done to find out the direction of growth of loan portfolio. From this analysis, it has tried to find out the growth trend of loan portfolio of sample banks during the period of study. Following table and graph presented below reflects the actual scenario of the subject.

Table no:- 4.16

Trend Percentage of Total Loans

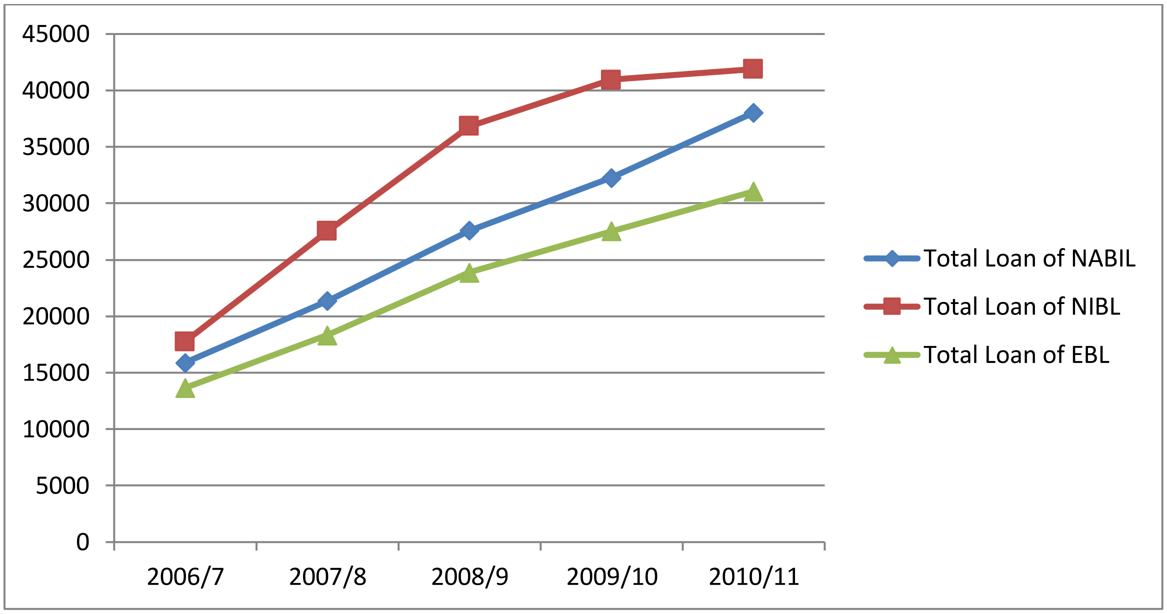
(Rs. in millions)

Fiscal Year		2006/07	2007/08	2008/09	2009/10	2010/11
NABIL	Total Loans	15903	21365	27590	32269	38034
	Index Number	100	134.34	173.48	202.91	239.16
NIBL	Total Loans	17769	27529	36827	40948	41887
	Index Number	100	154.92	207.25	230.44	235.73
EBL	Total Loans	13664	18339	23885	27556	31058
	Index Number	100	134.21	174.80	201.66	227.29

Source: Security Board of Nepal

Figure no:- 4.3

Loan of NAIBL, NIBL and EBL



By analyzing the above table and graph it is found that among the sample banks trend lf NABIL's Total Loan portfolio is increasing and in case of NABIL. Similarly, NIBL and EBL's total loan portfolio is also increasing trend. During the study period NABIL's total loan portfolio is increased by 2.39 times, NIBL's loan portfolio in 2.35 times and EBL's total loan portfolio is 2.27 times.

4.3.2 Analysis of Trend Percentage of Non-Performing Assets

This analysis helps to know the growth trend of Non-Performing Assets of banks under study period. This analysis is done basically to know the exact trend of bad loans of sample banks. Following table and trend figure shows the trend of Non-Performing Assets of NABIL Bank Ltd, Nepal Investment Bank Ltd and Everest Bank Ltd during the study period.

Table no:- 4.17

Trend Percentage of Non-Performing Assets

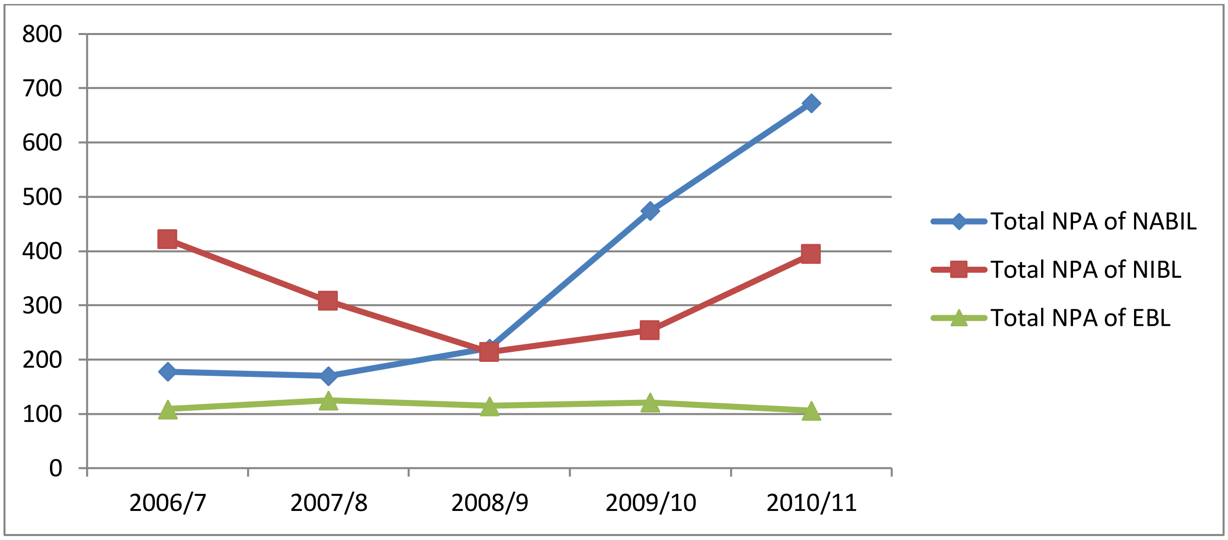
(Rs. in millions)

Fiscal Year		2006/07	2007/08	2008/09	2009/10	2010/11
NABIL	Total NPA	178	170	221	474	673
	Index Number	100	95.51	124.16	266.29	378.09
NIBL	Total NPA	421	308	214	254	394
	Index Number	100	73.16	50.83	60.33	93.59
EBL	Total NPA	109	125	115	121	106
	Index Number	100	114.67	105.5	111	97.25

Source: Security Board of Nepal

Figure no:- 4.4

Total NPA of NAIBL, NIBL and EBL



From the help of given figure, we came to know that the total NPA of NABIL bank is 178 in fiscal year 2006/7 and it decreases to 170 in 2007/8.But it is increases rapidly in fiscal year 2008/9 to 2010/11. In other hands the total NPA of NIBL are fluctuating during the study period. Similarly, total NPA of EBL are also fluctuation during the study period.

4.3.3 Analysis of Trend Percentage on Loan Loss Provisioning

In this part of analysis, direction of loan loss provisioning is done to get the idea of position to secure loans and advances. Following table and graph gives the idea of trend of loan loss provisioning on sample banks under study.

Table no:- 4.17

Trend Percentage of Loan Loss Provisioning

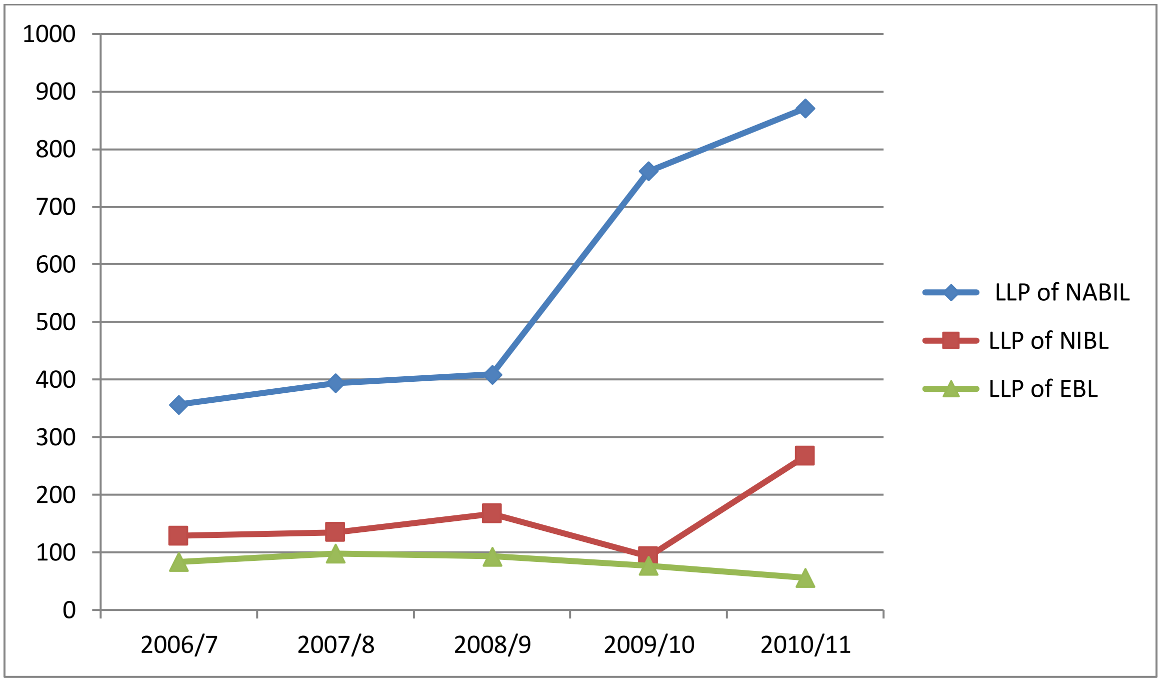
(Rs. in millions)

Fiscal Year		2006/07	2007/08	2008/09	2009/10	2010/11
NABIL	Loan Loss Provisioning	357	394	409	762	871
	Index Number	100	110.36	114.56	213.45	243.98
NIBL	Loan Loss Provisioning	129	135	167	93	267
	Index Number	100	104.65	129.46	72.09	206.97
EBL	Loan Loss Provisioning	84	98	93	77	56
	Index Number	100	116.67	110.71	91.67	66.67

Source: Security Board of Nepal

Figure no:- 4.5

Loan Loss Provision of NAIBL, NIBL and EBL



In the above figure shows that Loan Loss Provisioning of NABIL is regularly increasing. In the case of NIBL first increase in fiscal year 2006/7 to 2008/9 then decrease in 2009/10 and increases 2010/11. Similarly, the Loan Loss Provisioning of EBL is in increasing trend 2006/7 to 2008/9 then after decreasing trend in during the study period.

4.4 Analysis of Non-Performing Assets and Net Profit

Trend of NPA is compared to evaluate whether the increment ratio of NPA is similar to increment ratio of net profit. With this comparison, it can be found whether the profitability is affected with the growth of NPA. If the increment ratio of NPA is higher than that of net profit, it can be concluded that significant portion of profit is sacrificed for maintaining required loan loss provisioning and there is reduction on net profit. Likewise, if net profit level is similar even though the NPA level is increased we may conclude that net profit is maintained because banks have been able to boost the profit level and actual profitability is not affected only due to NPA growth.

4.4.1 Analysis of Non-Performing Assets and Net Profit of NABIL

Table no:- 4.19

Non-Performing Assets and Net Profit of NABIL

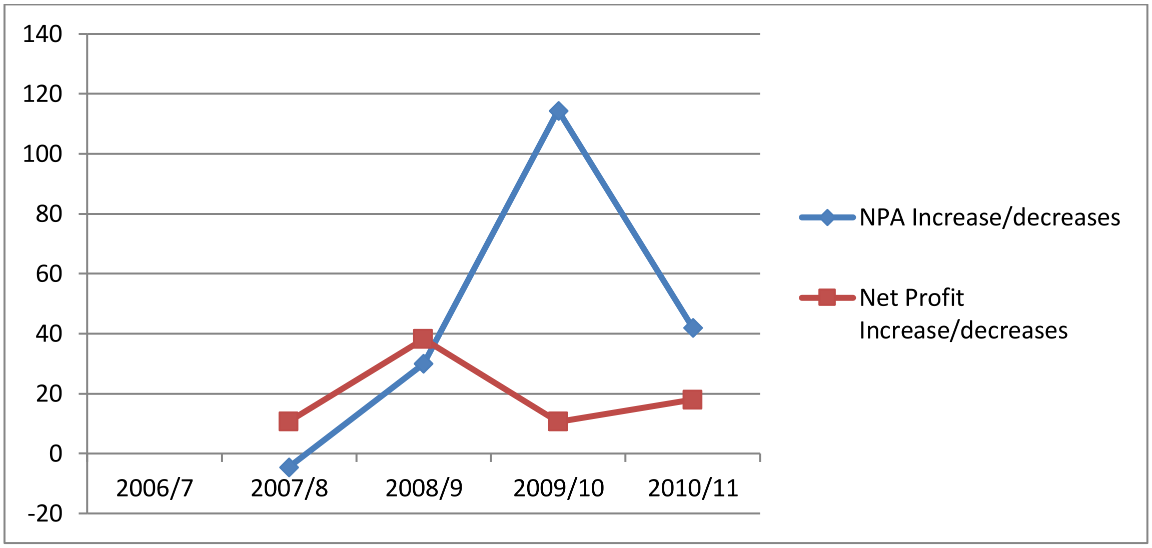
(Rs. in millions)

Fiscal Year	2006/07	2007/08	2008/09	2009/10	2010/11
NPA	178	170	221	474	673
Increase/decreases (%)		-4.49	30	114.5	41.98
Net Profit	674	746	1031	1140	1344
Increase/decreases (%)		10.68	38.20	10.57	17.89

Source: Annual Report of NAIB

Figure:- 4.5

Impact of NPA and Net profit of NAIBL



From the above table and figure, we found the Non-performing assets of NABIL is in fluctuating trend and Net Profit of the bank is in increasing trend every year and percentage increasing in Net profit is in fluctuating is not constant.

The trend of NPA and Net Profit indicates that Net Profit depends upon the level of Non-performing assets but only non-performing assets are not a cause to increase of the net profit of the bank.

4.4.2 Analysis of Non-Performing Assets and Net Profit of NIBL

Table no.:- 4.20

Non-Performing Assets and Net Profit of NIBL

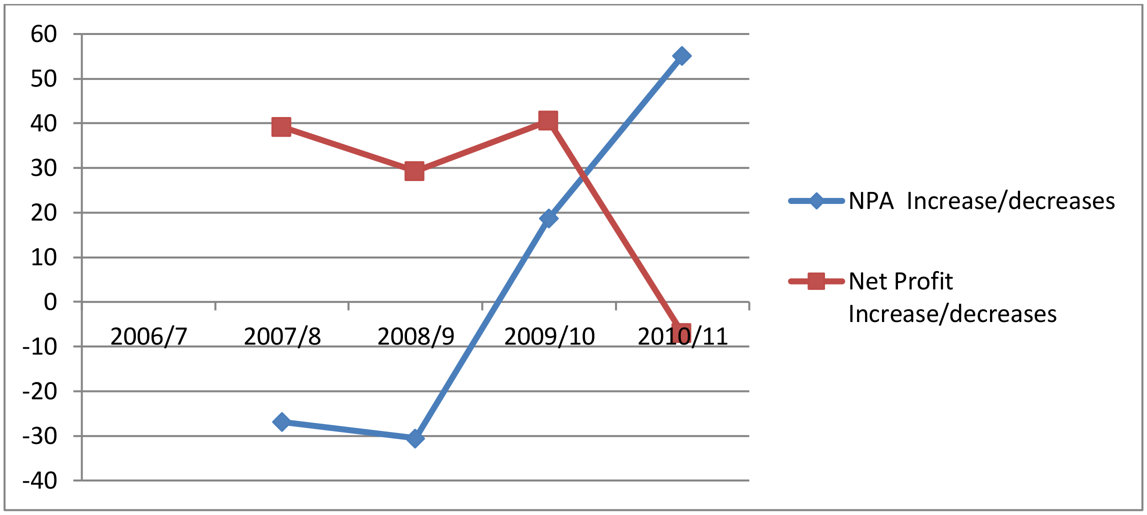
(Rs. In millions)

Fiscal Year	2006/07	2007/08	2008/09	2009/10	2010/11
NPA	421	308	214	254	394
Increase/decrease (%)		-26.84	-30.51	18.69	55.11
Net Profit	501	697	901	1266	1177
Increase/decrease (%)		39.12	29.26	40.51	-7.03

Source: Annual Report of NIBL

Figure no. :-4.6

Impact of NPA and Net profit of NIBL



From the above table and figure, we found that Non-performing assets of the bank is in fluctuating trend and net profit of the bank is increasing rapidly 2006/7 to 2009/10 but decreasing in 2010/11.

The trend of NPA and Net Profit indicates that Net Profit depends upon the level of Non-performing assets but only Non-performing assets are not a cause to increase of the net profit of the bank4.4.3 Analysis of Non-Performing Assets and Net Profit of EBL

Table no :- 4.21

Non-Performing Assets and Net Profit of EBL

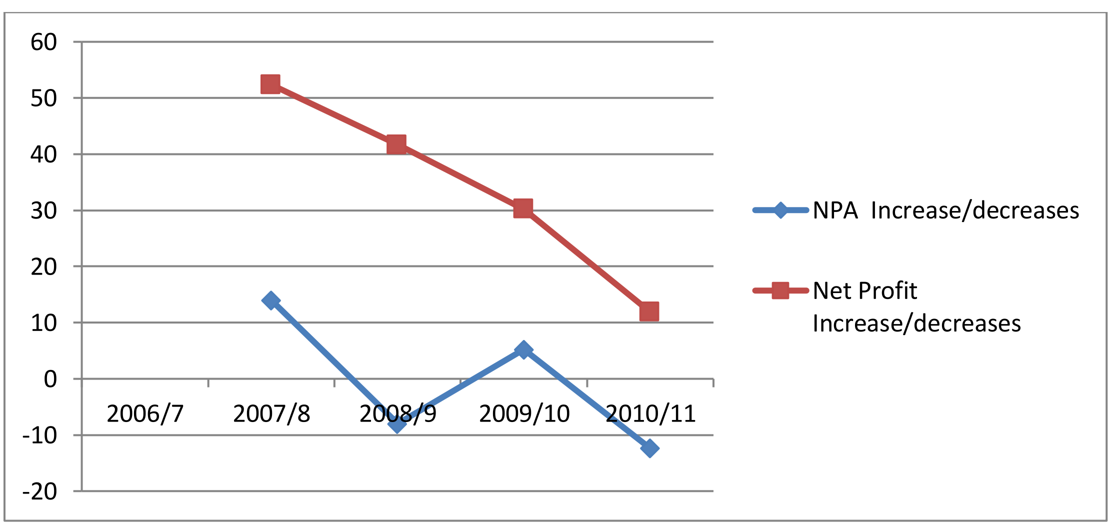
(Rs. In millions)

Fiscal Year	2006/07	2007/08	2008/09	2009/10	2010/11
NPA	109	125	115	121	106
Increase/decrease (%)		14.67	-8	5.21	-12.39
Net Profit	296	451	639	832	931
Increase/decrease (%)		52.36	41.68	30.20	11.89

Source: Annual Report of EBL

Figure no:- 4.7

Impact of NPA and Net profit of EBL



From the above table and figure, we found that Non-performing assets of the bank is in fluctuating trend and net profit of the bank is in increasing trend every year and percentage increasing in Net profit is in fluctuating is not constant.

4.5 Analysis of Correlation Coefficient

Correlation coefficient measures the relation between two or more variables. It also measures the extent to which one variable affects the other one. The correlation coefficient lies between+1 and -1. The +1 coefficient indicates that the variables are perfectly positively correlated and-1 coefficient indicates that variables are perfectly negatively correlated and if the correlation coefficient is 0, it means that the variables are not related to each other.

The negative correlation indicates that the increase in value of one variable leads to decrease in the value of the other variables. The positive correlation indicates that the increase in the value of one variable leads to increase in the value of the other variable also. The number indicates the degree of correlation between the variables. Correlation coefficient of different dependent and independent variables are tried to analyze to find out the relation of these variables in different years. The statistical tool correlation analysis is preferred in this study to identify relationship between NPA and Net profit, NPA and total loan and NPA and loan loss provisioning to find out whether the relationship is significant or not.

4.5.1 Correlation Coefficient between NPA and Total Loan

As the NPA is the part of loans which is not performing well, it is necessary to analyze the correlation between total loans and NPAs. Positive correlation indicates that nonperforming assets are simultaneously increases with the increases of loan portfolio. Negative correlation indicates decrease in Non-performing assets even loan portfolio increases and vice-versa.

Table no:- 4.22

Correlation Coefficient between NPA and Total Loan of NABIL

(Rs. in millions)

Fiscal Year	Total NPA	Total Loan
2006/7	178	15903
2007/8	170	21365
2008/9	221	27590
2009/10	474	32269
2010/11	673	38034
Correlation (r)	0.9093	

Source: Annex 1

From the above table, the correlation coefficient is +0.9093 which is highly positive. It indicates that there is positive relationship between NPA & total loan of NABIL. It means that when loan portfolio is increased, NPA level lf the bank is also increased & vice-versa. NPA level seems to rise with the rise in the volume of total loan. It can be concluded that NPA cannot be avoided but they can be reduced and mitigated in order to maintain the quality of loan portfolio.

Table no. :-4. 23

Correlation Coefficient between NPA and Total Loan of NIBL

(Rs. in millions)

Fiscal Year	Total NPA	Total Loan
2006/7	421	17769
2007/8	308	27529
2008/9	214	36827
2009/10	254	40948
2010/11	394	41887
Correlation (r)	-0.4813	

Source: Annex 2

From the above table, we can conclude that there is negative (-0.4813) relationship between credit expansion and NPA level of NIBL. It means that when loan portfolio is increased, NPA level is decreased and vice-versa. NPA level seems to decrease with the rise in the volume of total loan.

Table no :- 4.24

Correlation Coefficient between NPA and Total Loan of EBL

(Rs. in millions)

Fiscal Year	Total NPA	Total Loan
2006/7	109	13664
2007/8	125	18339
2008/9	115	23885
2009/10	121	27556
2010/11	106	31058
Correlation (r)	-0.16057	

Source: Annex 3

From the above table, we can conclude that there is negative (-0.16057) relationship between credit expansion and NPA level of EBL. It means that when loan portfolio is increased, NPA level is decreased and vice-versa. NPA level seems to decrease with the rise in the volume of total loan.

4.5.2 Correlation Coefficient between NPA and Net Profit

In this part of analysis, correlation coefficient point out the relationship between NPA & Net Profit during the study period. During this period what happens and what should be concluded is maintain here.

Table no.:- 4.25

Correlation Coefficient between NPA and Net Profit of NABIL

(Rs. in millions)

Fiscal Year	Total NPA	Net Profit
2006/7	178	674
2007/8	170	746
2008/9	221	1031
2009/10	474	1140
2010/11	673	1344
Correlation (r)	0.9129	

Source: Annex 4

From the above table, the correlation coefficient is +0.9129 which is highly positive. It indicates that there is positive relationship between NPA & net profit of NABIL. It means that when Net Profit is increased, NPA level of the bank decreases & vice-versa. NPA level seems to rise with the rise in the volume of Net Profit. It can be concluded that NPA cannot be avoided but they can be reduced and mitigated in order to maintain the quality of net profit.

Table no:- 4.26

Correlation Coefficient between NPA and Net Profit of NIBL

(Rs. in millions)

Fiscal Year	Total NPA	Net Profit
2006/7	421	501
2007/8	308	697
2008/9	214	901
2009/10	254	1266
2010/11	394	1177
Correlation (r)	-0.3658	

Source: Annex 5

Above table depicts that the correlation coefficient between NPA and Net profit is remained -0.3658. It indicates that the NPA & Net profit of the bank is negatively related. It means that when NPA level is increased, net profit of the bank is decreased & vice-versa. The banks can raise its net profit by decreasing NPA.

Table no:- 4.27

Correlation Coefficient between NPA and Net Profit of EBL

(Rs. in millions)

Fiscal Year	Total NPA	Net Profit
2006/7	109	296
2007/8	125	451
2008/9	115	639
2009/10	121	832
2010/11	106	931
Correlation (r)	-0.1538	

Source: Annex 6

Above table depicts that the correlation coefficient between NPA and Net profit is remained -0.1538. It indicates that the NPA & Net profit of the bank is negatively related. It means that when NPA level is increased, net profit of the bank is decreased & vice-versa. The banks can raise its net profit by decreasing NPA.

4.5.3 Correlation Coefficient between NPA and Loan Loss Provisioning.

Loan Loss provisioning is the vehicle for adjusting the degradation of quality of loan which could arise from the reduction in quality of loan. In general more NPA means more amount of operating profit to set aside for loan loss provisioning resulting decrease in portion of Net income. In other aspects, more loan loss provisioning reflects that adequate cushion is maintained to protect the banks from the loss of degradation of their loans. It is found that there is +or – correlation between NPA and Loan loss provisioning under study.

Table no:- 4.28

Correlation Coefficient between NPA and Loan Loss Provisioning of NABIL

(Rs. In millions)

Fiscal Year	Total NPA	Loan Loss Provisioning
2006/7	178	357
2007/8	170	394
2008/9	221	409
2009/10	474	762
2010/11	673	871
Correlation (r)	+0.9845	

Source: Annex 7

Above table depicts that the correlation coefficient between NPA and Loan loss provisioning is+0.9845. It indicates that the NPA and Loan loss provisioning of the bank is highly positively related. It means that when NPA level is increased, Loan loss provisioning also increased and vice-versa. The bank can raise its Loan loss provisioning by increasing NPA.

Table no:- 4.29

Correlation Coefficient between NPA and Loan Loss Provisioning of NIBL

(Rs. in millions)

Fiscal Year	Total NPA	Loan Loss Provisioning
2006/7	421	129
2007/8	308	135
2008/9	214	167
2009/10	254	93
2010/11	394	267
Correlation (r)	+0.3727	

Source: Annex 8

From the above table, the correlation coefficient is +0.3727 which is positive. It indicates that there is positive relationship between NPA & Loan loss provisioning of the bank. It means that when NPA level is increased, Loan loss provisioning also increased and vice-versa. NPA level seems to rise with the rise in the volume of loan loss provisioning.

Table no:- 4.30

Correlation Coefficient between NPA and Loan Loss Provisioning of EBL

(Rs. in millions)

Fiscal Year	Total NPA	Loan Loss Provisioning
2006/7	109	84
2007/8	125	98
2008/9	115	93
2009/10	121	77
2010/11	106	56
Correlation ®	+0.6740	

Source: Annex 9

Above table depicts that the correlation coefficient between NPA and Loan loss provisioning is+0.6740.It indicates that the NPA and Loan loss provisioning of the bank is positively related. It means that when NPA level is increased, Loan loss provisioning also increased and vice-versa. The bank can raise its Loan loss provisioning by increasing NPA.

4.6 Major Finding

In this part major finding of the study are presented on the data and analyzed and presented. Major finding of this study are presented on the following.

4.6.1 Finding of NABIL Bank Limited

During the study period, Gross NPA with respect to total assets of NABIL is ranges from 0.45 to 1.16 with average mean, S.D. and C.V. of 0.734, 0.27 and 0.36 respectively. Similarly, Gross NPA with respect to total loan of NABIL is ranges from 0.79 to 1.77 with average mean, S.D. and C.V. of 1.19, 0.38 and 0.32 respectively. In conclusion, we found that NABIL average NPA ratio as a % of Total Loan is 1.19% which is under the criteria of NRB Directives issuing for commercial banks for managing NPA.

From the analysis of part of Net NPA ratio as percent of total assets of NABIL is ranging from 0.23 to 0.97 while expressing net NPA with respect to total loans if ranges from 0.37 to 1.48 during the study period. Average mean, S.D and C.V of net NPA with respect to total assets are 0.49, 0.27 and 0.54 respectively. It concludes that during the study period, net NPA ratio as % of total assets of NABIL is in decreasing trend but in 2010/11 slightly increase than 2009/10. Similarly, net NPA ratio as % of total loans is also decreasing trend but in 2010/11 slightly increase than 2009/10. During the study period, amount of loan loss provisioning over the total NPA of NABIL ranging from 43.15 to 77.27. Average mean, S.D and C.V of loan loss provisioning to NPA is found that 57.38, 11.77 and 0.21 respectively. This statistical figure impels us to conclude that of total 57.38 of NABIL is secured by loan loss provisioning. There is increasing trend is the growth of loan loss provisioning with respect to portion of NPA.

From the analysis, part of Net NPA of out of gross NPA of NABIL is ranging from 25.11 to 92.13 during the study period. Average mean, S.D and C.V are 68.60, 23.81 and 0.35 respectively. This statistical figure suggests us to conclude that in average of 68.60% NPA of NABIL is not secured by means of provisioning. Net NPA with respect to total NPA are slightly fluctuating during the study period.

By analyzing the trend percentage of total loan, it is found that among the sample banks trend lf NABIL's Total Loan portfolio is increasing by 2.39 times.

While analyzing the trend of NPA of NABIL bank is 178 in fiscal year 2006/7 and it decreases to 170 in 2007/8.But it is increases rapidly in fiscal year 20089 to 2010/11 by 3.7 times.

From the analysis, it is found that NABIL's loan loss provisioning in increasing trend during the study period it increases by 2.43 times.

From the analysis it is found that Non-performing assets of NABIL is in fluctuating trend and Net Profit of the bank is in increasing trend every year and percentage increasing in Net profit is in fluctuating is not constant.

From the analysis of correlation coefficient is +0.9093 which is highly positive. It indicates that there is positive relationship between NPA & total loan of NABIL. It means that when loan portfolio is increased, NPA level lf the bank is also increased & vice-versa. While analyzing of the correlation coefficient is 0.9129 which is highly positive. It indicates that there is positive relationship between NPA & total loan of NABIL. It means that when Net Profit is increased, NPA level lf the bank is also increased & vice-versa. NPA level seems to rise with the rise in the volume of Net Profit. It can be concluded that NPA cannot be avoided but they can be reduced and mitigated in order to maintain the quality of net profit. Similarly, correlation coefficient between NPA and Loan loss provisioning is+0.9845. It indicates that the NPA and Loan loss provisioning of the bank is highly positively related. It means that when NPA level is increased, Loan loss provisioning also increased and vice-versa. The bank can raise its Loan loss provisioning by increasing NPA.

4.6.2 Finding of Nepal Investment Bank Limited

During the study period, Gross NPA with respect to total assets of NIBL is ranges from 0.40 to 1.53 with average mean, S.D. and C.V. of 0.766, 0.41 and 0.53 respectively. These statistical figures impel us to conclude that gross NPA with respect to total assets of NIBL is in decreasing. Similarly, Gross NPA with respect to total loan of NIBL ranges from 0.46 to 2.37 with average mean, S.D. and C.V. of 1.072, 0.69 and 0.64 respectively. These statistical figures impel us to conclude that gross NPA with respect to total loan of NIBL is in decreasing trend. In conclusion, we found that NIBL average NPA ratio as a % of Total Loan is 1.072% which is under the criteria of NRB Directives issuing for commercial banks for managing NPA.

Form the analysis of part of Net NPA ratio as % of total assets ranges from 0.09 to 1.06 and average mean, S.D and C.V of net NPA is 0.42, 0.64 and 0.81 respectively during the study period. While expressing net NPA with respect to total loans it comes within the range of 0.13 and 1.64. Average mean, S.D and C.V of net NPA with respect to total loan is 0.30, 0.58 and 0.94 respectively. During the study period net NPA as % of total assets is in decreasing trend expect of fiscal year 2007/8 and net NPA as % of total loan is also in decreasing trend expect in fiscal year 2007/8.

During the study period, amount of loan loss provisioning over the total NPA of NIBL ranging from 128 to 326. Average mean, S.D and C.V of loan loss provisioning to NPA is found that 222, 74.93 and 0.34 respectively. This statistical figure impels us to conclude that of total 222 of NIBL is secured by loan loss provisioning. There is more fluctuating trend is the growth of loan loss provisioning with respect to portion of NPA. From the part of Net NPA of out of gross NPA of NIBL is ranging from 22.43 to 69.35 during the study period. Average mean, S.D and C.V are 48.71, 18.22 and 0.37 respectively. This statistical figure suggests us to conclude that in average of 48.71% NPA of NIBL is not secured by means of provisioning. Net NPA in decreasing trend in 2006/7 to 2009/10 and increasing in 20010/11 during the study period.

By analyzing the trend percentage of total loan, it is found that among the sample banks trend lf NIBL's Total Loan portfolio is increasing by 2.35 times. From the trend percentage of the total NPA of NIBL are fluctuating during the study period. Form the trend percentage of loan loss provisioning of NIBL first increase in fiscal year 2006/7 to 2008/9 then decrease in 2009/10 and increases 2010/11.

From the analysis in case, we found that Non-performing assets of the bank is in fluctuating trend and net profit of the bank is increasing rapidly 2006/7 to 2009/10 but decreasing in 2010/11. The trend of NPA and Net Profit indicates that Net Profit depends upon the level of Non-performing assets but only Non-performing assets are not a cause to increase of the net profit of the bank.

From the analysis of correlation coefficient is negative (-0.4813) relationship between credit expansion and NPA level of NIBL. It means that when loan portfolio is increased, NPA level is decreased and vice-versa. NPA level seems to decrease with the rise in the volume of total loan. From the correlation coefficient between NPA and Net profit is remained -0.3658. It indicates that the NPA & Net profit of the bank is negatively related. It means that when NPA level is increased, net profit of the bank is decreased & vice-versa. The banks can raise its net profit by decreasing NPA. From the correlation coefficient is +0.3727 which is positive. It indicates that there is positive relationship between NPA & Loan loss provisioning of the bank. It means that when NPA level is increased, Loan loss provisioning also increased and vice-versa. NPA level seems to rise with the rise in the volume of loan loss provisioning.

4.6.3 Finding of Everest Bank Limited

During the study period, Gross NPA with respect to total assets of EBL is ranges from 0.23 to 0.51 with average mean, S.D. and C.V. of 0.36, 0.11 and 0.30 respectively. These statistical figures impel us to conclude that gross NPA with respect to total assets of EBL is in decreasing. Similarly, Gross NPA with respect to total loan of EBL is ranges from 0.16 to 0.80 with average mean, S.D. and C.V. of 0.484, 0.22 and 0.46 respectively. These statistical figures impel us to conclude that gross NPA with respect to total loan of EBL is in decreasing trend. In conclusion, we found that EBL average NPA ratio as a % of Total Loan is 0.484% which is under the criteria of NRB Directives issuing for commercial banks for managing NPA.

During the study period, Net NPA ratio as % of total assets ranges from 0.017 to 0.11 and average mean, S.D and C.V of net NPA is 0.075, 0.033 and 0.44 respectively. While expressing net NPA with respect to total loans it comes within the range of 0.0.016 to 0.146. Average mean, S.D and C.V of net NPA with respect to total loan is 0.084, 0.059 and 0.71 respectively. During the study period net NPA as % of total assets is in decreasing trend expect of fiscal year 2007/8 and net NPA ratio as % of total loan is also in decreasing trend expect in fiscal year 2007/8.

During the study period, amount of loan loss provisioning over the total NPA of EBL ranging from 123 to 189. Average mean, S.D and C.V of loan loss provisioning to NPA is found that 145, 25.07 and 0.17 respectively. This statistical figure impels us to conclude that of total 145 of EBL is secured by loan loss provisioning. There is more fluctuating trend is the growth of loan loss provisioning with respect to portion of NPA. From the analysis, part of Net NPA of out of gross NPA of EBL is ranging from 7.55 to 36.36 during the study period. Average mean, S.D and C.V are 20.44, 9.23 and 0.45 respectively. This statistical figure suggests us to conclude that in average of 20.44% NPA of EBL is not secured by means of provisioning. Net NPA with respect to total NPA are fluctuating during the study period.

By analyzing the trend percentage of total loan, it is found that among the sample banks trend lf EBL's Total Loan portfolio is increases by 2.27 times. From the trend percentage of the total NPA of EBL are fluctuating during the study period. From the trend percentage of Loan Loss Provisioning of EBL is in increasing trend 2006/7 to 2008/9 then after decreasing trend in during the study period.

From the analysis of correlation coefficient there is Negative (-0.16057) relationship between credit expansion and NPA level of EBL. It means that when loan portfolio is increased, NPA level is decreased and vice-versa. NPA level seems to decrease with the rise in the volume of total loan, the correlation coefficient between NPA and Net profit is also Negative -0.1538. It indicates that the NPA & Net profit of the bank is negatively related. It means that when NPA level is increased, net profit of the bank is decreased & vice-versa. The banks can raise its net profit by decreasing NPA, correlation coefficient between NPA and Loan loss provisioning is Positive+0.6740.It indicates that the NPA and Loan loss provisioning of the bank is positively related. It means that when NPA level is increased, Loan loss provisioning also increased and vice-versa. The bank can raise its Loan loss provisioning by increasing NPA.

CHAPTER-V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

This chapter is the final chapter of the study which consists of the summary, conclusion and recommendation. As mentioned in the objectives of the study this chapter summarizes the problems area with regards to management of NPA and various impacts of NPA.

This study has undertaken to analyze as well as explore the various factors contributing for NPA and their corresponding impacts of sample bank i.e. NABIL Bank Limited, Nepal Investment Bank Limited and Everest Bank Limited. This is done by the studying various figures and factors related to NPAs in term of their impacts on profitability position, their contribution in the growth of NPA and problem area in their effective management. The financial statement of the last five year FY 2006/07 to 2010/11 has been examined for the subject analysis. Fiscal Year 2006/7 to 2010/11 has been examined for the subject analysis.

Various financial dated with respect to NPA are sorted, tabulated, interpreted and correlated by using appropriate tools and techniques.

The study has been divided into five chapters; they are Introduction, Review of literature, Research Methodology, Data presentation and Analysis and finally Summary, Conclusion and Recommendation.

In first chapter, Background of the study, profile of selected Bank. (NABIL, NIBL and EBL), Focus of the study, Statement of the problem, Objectives of the study, Significance of the study and Limitation of the study and plan of the study are highlighted.

In the second chapter, we discuss about Conceptual review of banking, various terminologies related to NPA and review of previous research and study etc. have been defined to facilitate in the analysis part of the study, various NRB directives, NRB Banking and Financial Statistics etc.

In the third chapter, the research methodology which is used to analyze the NPA of sample banks under consideration is briefly explained, this chapter consists of research design, population and sample, types and sources of data, Data collection techniques, Data Analysis tools.

In the fourth chapter, the data required for the study are collected from secondary data have been used in the study, annual reports & other publication from the basis of secondary data for the purpose of the study are presented, analyzed and interpreted by using various tools and techniques of financial management accounts and statistics to present the result. In the fifth and final chapter consists of the summary, conclusion, and recommendation of the earlier four chapters.

5.2 Conclusion

Nepalese banking industry is faced with variety of serious challenges, the prominent being the management of large volume of non-performing loans and the development of corporate values and ethics among the stake holders in the banking industry. There is already a stiff competition between the market players and the possibility of entry of new players is going to further add to the pressure. So in such a scenario, stakeholders including NRB have to be vigilant that banks do not compromise on the prudent risk management practices in order to survive the competition, which might ultimately lead to the bank failure. At the same time, NRB has to keep tight vigil in the banking industry so as to be take corrective measures in creating and maintaining a stable and a sound banking industry.

In conclusion it’s found that NIBL and EBLs average NPA ratio as a % of total loan is 1.07% & 0.484% and gross NPA with respect to total loan of NIBL and EBL is in decreasing trend. Average NPA level of NABIL is (1.19%) high which is not under the criteria of NRB directives issuing from commercial banks for managing NPA.

This statistical figure suggests us to conclude that in average 68.60% of NPA of NABIL is not secured by means of provisioning. Net NPA with respect to total NPA are slightly fluctuating during the study period and the figure of NIBL & EBL suggests concluding that in average 48.71% & 20.44% of NPA of NIBL & EBL is not secured by means of provisioning.

This statistical figure impels us to conclude that 57.38% of total NPA of NABIL, 222% of total NPA of NIBL & 145% of EBL secured by loan loss provisioning. During the study period NABILs total loan portfolio is increased by 2.39 times. Likewise, total loan portfolio of NIBL & EBL also is in increased by 3.35 times & 2.27 times.

While analyzing the trend percent of non-performing assets, it is found that the trend of NPA of NABIL is fluctuating and increases 3.78 times more than base year 2009/2010. In the case of NIBL & EBL are also fluctuating trend by 0.93 times and 0.97 times during the study period.

From the analysis, it is found that NABIL loan loss provisioning is in fluctuating trend and increases 2.43 times more than base year 2009/2010 and in the case of NIBL & EBL is also fluctuating trend and its loan loss provisioning is 2.06 times & 0.66 times.

From the analysis, it is found that non-performing assets of NABIL is in fluctuating trend and net profit of the bank is in increasing trend of every year. In the case of NIBL non-performing assets of the bank is in fluctuating trend but net profit of the bank is increasing in 2006/7 to 2009/10 but decreasing in 2010/11. Similarly, in the case of EBL non-performing assets of the bank is in fluctuating trend and net profit of the bank is in increasing trend of every year.

The correlation coefficient between NPA & total loan of NABIL is highly positive; NIBL & EBL is negative relation between NPA & total loan. These finding supports the theory that, positive correlation indicates that non-performing assets are simultaneously increases with the increases of loan portfolio and negative correlation indicates decrease in non-performing assets even loan portfolio increases and vice-versa.

The correlation coefficient between NPA and Net profit of NABIL is positive. It means that when Net Profit is increased, NPA level lf the bank is also increased & vice-versa. In the case of NIBL & EBL is negative relation between NPA & Net profit. It means that when NPA level is decreased, net profit of the bank is increased and vice-versa.

The correlation coefficient between NPA and Loan Loss Provisioning of NABIL is highly positive. In the case of NIBL & EBL is also positive relation between NPA and Loan Loss Provisioning. It means that when NPA level is increased, loan loss provisioning also increased and vice- versa. The bank can raise its loan loss provisioning by increasing NPA.

5.3 Recommendation

Recommendation refers to the suggestive measures derived from the findings of the study. High level of non-performing assets not only decreases the profitability of the banks but also affect the entire financial as well as operational health of the country. If the NPA were not controlled immediately, it would be proved as a curse for the banks in near future.

Poor corporate governance and risk management practices are the key reasons for high level of NPL in our banking system. Other causes are economic slowdown, legal hurdles in recovery and poor quality of credit information. Management practices in many banks are still very weak, particularly in the areas of credit analysis, credit administration and risk management and internal control system. Hence, the management of NPL is a great challenge for the Nepalese banking sector. It is high time that we start strengthening and reshaping the reform process. Following are some of the recommendations, which will help to reduce the level of NPA of the Nepalese commercial banks.

1) To take necessary step towards recovering bad debt:

The NPA of the bank has the direct effect on its profitability. More the NPA of the bank the less will be its profitability. Those banks, which have high level of NPA, should take necessary action towards recovering their bad loans as soon as possible. It is recommended that NIBL and NABIL make serious action to recover the bad loan and also should make curative action for new loans from turning them into NPA from now. Hiring assets management company (AMC) is recommended to both of them to reduce the current nonperforming assets.

2) To manage Poor credit appraisal system:

When bankers give loan, he should analyze the purpose of the loan. To ensure safety and liquidity, banks should grant loan for productive purpose only. Bank should analyze the profitability, viability, long term acceptability of the project while financing. Poor credit appraisal is another factor for the rise in NPA's. Due to poor credit appraisal the bank gives advances to those who are not able to repay it back. They should use good credit appraisal to decrease the NPA's.

3) To take care of managerial deficiencies:

The banker should always select the borrower very carefully and should take tangible assets as security to safe guards its interests. When accepting securities banks should consider the market ability, acceptability, safety and transferability. The banker should follow the principle of diversification of risk based on the famous maxim "do not keep all the eggs in one basket"; it means that the banker should not grant advances to a few big farms only or to concentrate them in few industries or in a few cities. If a new big customer meets misfortune or certain traders or industries affected adversely, the overall position of the bank will not be affected**.**

4) Others factors to be considered:

he following factors also play a significant role in controlling the NPA structure of the commercial banks in Nepal.

- ❖ NRB should tight the supervision and inspection activity towards the commercial banks so that the accounting manipulation can be avoided and Net Profit of the banks is not decrease and NPA level of banks not increase.
- ❖ Following the updated directives of NRB and acting upon it also reduce many of the credit risk. Beside there are penalty implication and non-compliance of the directives. Hence all the three banks are recommended to follow the directives and they are also suggested to come up with stronger internal audit department to ensure that the directives are properly implemented.
- ❖ In the sample banks, EBL banks has non-performing assets low in comparison with the NIBL and NABIL so to maintain the loan portfolio is important for NIBL and NABIL.
- ❖ The banks should be a watch dog of its economy as well as the effect of changes in the international market to its credit customers. The amount involved in non-performing loans may rise considerably as a result of less predictable incidents,

such as when the costs of fuel, prices of key export products, foreign exchange rates or interest rates change abruptly. For example fall in the prices of loan collaterals (often real estate) may cause more loans to become classified as doubtful.

- Banks should take enough collateral so that banks at least can cover its amount in case of being unable to repay by the borrower.
- Control mechanism of the bank should be managed properly. Black listed customers should not be given the new loan, as it would lead to the same situation to the bank. Likewise, it is often said "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 about\ its borrowers so that necessary precautions can be taken in time.
- Proper management auditing system should be implemented to monitor the overall performance of the bank. Regular monitoring by both the internal and external (NRB auditors and private Co. auditors) auditors is most.
- Every commercial bank should maintain loan loss provision as per NRBs directives regarding non-performing assets.
- Banks should provide necessary training regarding NPA management to the managers and staffs who are involving in managing NPA.
- Bad intension, weak monitoring and mismanagement at top level are the major internal reasons turning good loan into bad loan therefore commercial banks should take corrective action immediately.

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ANNEXES

ANNEX-1

Correlation coefficient between NPA & Total Loan of NABIL

(Rs. in millions)

X	Y	$x = X - \overline{X}$	x^2	$y = Y - \overline{Y}$	y^2	xy
178	15903	-165.2	27291.04	-11129.2	123859092.6	1838544
170	21365	-173.2	29998.24	-5667.2	32117155.84	981559
221	27590	-122.2	14932.84	557.8	311140.84	-68163.2
474	32269	130.8	17108.64	5236.8	27424074.24	684973.4
673	38034	329.8	108768.04	11001.8	121039603.2	3628394
∑X=1716	∑Y=135161	$\sum x = 0$	$\sum x^2$ =198098.8	$\sum y = 0$	$\sum y^2$ =304751066.8	$\sum xy$=7065307

Here, n= no. of year=5

$$r = \frac{n\sum XY - \sum X \sum Y}{\sqrt{n\sum X^2 - \left(\sum X\right)^2}\sqrt{n\sum Y^2 - \left(\sum Y\right)^2}}$$

=0.9093216

ANNEX-2

Correlation coefficient between NPA & Total Loan of NIBL

(Rs. in millions)

X	Y	$x = X - \overline{X}$	x^2	$y = Y - \overline{Y}$	y^2	xy
421	17769	102.8	10567.84	-15223	231739729	-1564924.4
308	27529	-10.2	104.04	-5463	29844369	55722.6
214	36827	-104.2	10857.64	3835	14707225	-399607
254	40948	-64.2	4121.64	7956	63297936	-510775.2
394	41887	75.8	5745.64	8895	79121025	674241
∑X=1591	∑Y=164960	$\sum x = 0$	$\sum x^2$ =31396.8	$\sum y = 0$	$\sum y^2$ =418710284	$\sum xy =$ -1745343

Here, n= no. of year=5

$$r = \frac{n\sum XY - \sum X \sum Y}{\sqrt{n\sum X^2 - \left(\sum X\right)^2}\sqrt{n\sum Y^2 - \left(\sum Y\right)^2}}$$

$= -0.481372616$

ANNEX-3

Correlation coefficient between NPA & Total Loan of EBL

(Rs. in millions)

X	Y	$x = X - \overline{X}$	x^2	$y = Y - \overline{Y}$	y^2	xy
109	13664	-6.2	38.44	-9236.4	85311084.96	57265.68
125	18339	9.8	96.04	-4561.4	20806369.96	-44701.72
115	23885	-0.2	0.04	984.6	969437.16	-196.92
121	27556	5.8	33.64	4655.6	21674611.36	27002.48
106	31058	-9.2	84.64	8157.6	66546437.76	-75049.92
∑X=576	∑Y=114502	$\sum x = 0$	$\sum x^2$=252.8	$\sum y = 0$	$\sum y^2$ =195307941.2	$\sum xy$= -35680.4

Here, n= no. of year=5

$$r = \frac{n\sum XY - \sum X \sum Y}{\sqrt{n\sum X^2 - \left(\sum X\right)^2}\sqrt{n\sum Y^2 - \left(\sum Y\right)^2}}$$

= -0.160576254

ANNEX-4

Correlation coefficient between NPA & Net Profit of NABIL

(Rs. in millions)

X	Y	$x = X - \overline{X}$	x^2	$y = Y - \overline{Y}$	y^2	xy
178	674	-165.2	27291.04	-313	97969	51707.6
170	746	-173.2	29998.24	-241	58081	41741.2
221	1031	-122.2	14932.84	44	1936	-5376.8
474	1140	130.8	17108.64	153	23409	20012.4
673	1344	329.8	108768.04	357	127449	117738.6
$\sum X$=1716	$\sum Y$=4935	$\sum x = 0$	$\sum x^2$ =198098.8	$\sum y = 0$	$\sum y^2$ =308844	$\sum xy$= 225823

Here, n= no. of year=5

$$r = \frac{n\sum XY - \sum X \sum Y}{\sqrt{n\sum X^2 - \left(\sum X\right)^2}\sqrt{n\sum Y^2 - \left(\sum Y\right)^2}}$$

=0.912972795

ANNEX-5

Correlation coefficient between NPA & Net Profit of NIBL

(Rs. in millions)

X	Y	$x = X - \overline{X}$	x^2	$y = Y - \overline{Y}$	y^2	xy
421	501	102.8	10567.84	-407.4	165974.76	-41880.72
308	697	-10.2	104.04	-211.4	44689.96	2156.28
214	901	-104.2	10857.64	-7.4	54.76	771.08
254	1266	-64.2	4121.64	357.6	127877.76	-22957.92
394	1177	75.8	5745.64	268.6	72145.96	20359.88
∑X=1591	∑Y=4542	$\sum x = 0$	$\sum x^2$=31396.8	$\sum y = 0$	$\sum y^2$=410743.2	$\sum xy$= -41551.4

Here, n= no. of year=5

$$r = \frac{n\sum XY - \sum X \sum Y}{\sqrt{n\sum X^2 - \left(\sum X\right)^2}\sqrt{n\sum Y^2 - \left(\sum Y\right)^2}}$$

= -0.365896208

ANNEX-6

Correlation coefficient between NPA & Net Profit of EBL

(Rs. in millions)

X	Y	$x = X - \overline{X}$	x^2	$y = Y - \overline{Y}$	y^2	xy
109	296	-6.2	38.44	-333.8	111422.44	2069.56
125	451	9.8	96.04	-178.8	31969.44	-1752.24
115	639	-0.2	0.04	9.2	84.64	-1.84
121	832	5.8	33.64	202.2	40884.84	1172.76
106	931	-9.2	84.64	301.2	90721.44	-2771.04
$\sum X$=576	$\sum Y$=3149	$\sum x = 0$	$\sum x^2$=252.8	$\sum y = 0$	$\sum y^2$=275082.8	$\sum xy$=-1282.8

Here, n= no. of year=5

$$r = \frac{n\sum XY - \sum X \sum Y}{\sqrt{n\sum X^2 - \left(\sum X\right)^2}\sqrt{n\sum Y^2 - \left(\sum Y\right)^2}}$$

= -0.153832595

ANNEX-7

Correlation coefficient between NPA & Loan Loss Provisioning of NABIL

(Rs. in millions)

X	Y	$x = X - \overline{X}$	x^2	$y = Y - \overline{Y}$	y^2	xy
178	357	-165.2	27291.04	-201.6	40642.56	33304.32
170	394	-173.2	29998.24	-164.6	27093.16	28508.72
221	409	-122.2	14932.84	-149.6	22380.16	18281.12
474	762	130.8	17108.64	203.4	41371.56	26604.72
673	871	329.8	108768.04	312.4	97593.76	103029.52
∑X=1716	∑Y=2793	$\sum x = 0$	$\sum x^2$=198098.8	$\sum y = 0$	$\sum y^2$=229081.2	$\sum xy$= 209728.4

Here, n= no. of year=5

$$r = \frac{n\sum XY - \sum X \sum Y}{\sqrt{n\sum X^2 - \left(\sum X\right)^2}\sqrt{n\sum Y^2 - \left(\sum Y\right)^2}}$$

= 0.984513759

ANNEX-8

Correlation coefficient between NPA & Loan Loss Provisioning of NIBL

(Rs. in millions)

X	Y	$x = X - \overline{X}$	x^2	$y = Y - \overline{Y}$	y^2	xy
421	129	102.8	10567.84	-29.2	852.64	-3001.76
308	135	-10.2	104.04	-23.2	538.24	236.64
214	167	-104.2	10857.64	8.8	77.44	-916.96
254	93	-64.2	4121.64	-65.2	4251.04	4185.84
394	267	75.8	5745.64	108.8	11837.44	8247.04
∑X=1591	∑Y=791	$\sum x = 0$	$\sum x^2$=31396.8	$\sum y = 0$	$\sum y^2$=17556.8	$\sum xy$=8750.8

Here, n= no. of year=5

$$r = \frac{n\sum XY - \sum X \sum Y}{\sqrt{n\sum X^2 - \left(\sum X\right)^2}\sqrt{n\sum Y^2 - \left(\sum Y\right)^2}}$$

=0.372724381

ANNEX-9

Correlation coefficient between NPA & Loan Loss Provisioning of EBL

(Rs. in millions)

X	Y	$x = X - \overline{X}$	x^2	$y = Y - \overline{Y}$	y^2	xy
109	84	-6.2	38.44	2.4	5.76	-14.88
125	98	9.8	96.04	16.4	268.96	160.72
115	93	-0.2	0.04	11.4	129.96	-2.28
121	77	5.8	33.64	-4.6	21.16	-26.68
106	56	-9.2	84.64	-25.6	655.36	235.52
∑X=576	∑Y=408	$\sum x = 0$	$\sum x^2$=252.8	$\sum y = 0$	$\sum y^2$=1081.2	$\sum xy$=352.4

Here, n= no. of year=5

$$r = \frac{n\sum XY - \sum X \sum Y}{\sqrt{n\sum X^2 - \left(\sum X\right)^2}\sqrt{n\sum Y^2 - \left(\sum Y\right)^2}}$$

=0.674053665