CHAPTER – I
INTRODUCTION

1.1 Background of the Study

Granting of credit for economic activities is the prime duty of banking. Apart from raising resources through fresh deposits, borrowing and recycling of funds received back from borrowers constitute a major part of funding credit dispensation activity. Lending is generally encouraged because it has the effect of funds being transferred from the system to productive purposes, which results into economic growth. However lending also carries a risk called risk, which arises from the failure of borrower. Non-recovery of loans along with interest forms a major hurdle in the process of credit cycle. Thus, these loan losses affect the bank's profitability on a large scale. Though complete elimination of such losses is not possible, but banks can always aim to keep the losses at a low level.

Non-performing Asset (NPA) has emerged since over a decade as an alarming threat to the banking industry in our country sending distressing signals on the sustainability of the affected banks. Despite various correctional steps administered to solve and end this problem, concrete results are eluding. It is a sweeping and all pervasive virus confronted on banking and financial institutions. Increasing NPAs has a direct impact on banks profitability as legally banks are not allowed to book income on such accounts and at the same time banks are forced to make provision on such assets as per the central Bank guidelines. Also, with increasing deposits made by the public in the banking system, the banking industry cannot afford defaults by borrower since NPAs affects the repayment capacity of banks. Further, central Bank successfully creates excess liquidity in the system through various rate cuts and banks fail to utilize this benefit to its advantage due to the fear of burgeoning non-performing assets.

Recovery of bad loans by banks and financial institutions has turned into a big issue in the financial sector of Nepal. This has greatly caused negative impact upon Banks' profit, government revenue and the overall financial sector of the country. This calls for an effective system and mechanisms that case the early recovery of debts of Banks and also of bank-like institutions as specified by Nepal Rastra Bank-the Monetary Authority.

Due to their control role in the economy, government and central bank try their best to rescue banks from such situations. Hence to protect the banks from such situation and protect depositors and shareholders interest, central bank issues various directives and guidelines from time to time with modification and amendments for the sound regulation of the banking system. All the banks have to abide by the rules and regulation issued by central bank of the country.

1.1.1 Profile of the Selected Banks

a) Standard Chartered Bank Nepal Limited

Standard Chartered Bank Nepal Limited, formally known as Nepal Grindlays Bank Limited has been in operation since 1987. It is one of the topmost joint venture banks of Nepal. Capital structure of this bank is; 50 percent by Chartered Grindlays Bank, 33 percent by Nepal Bank Limited, the country's oldest and largest financial institutions and 17 percent by the Nepalese public. On July 31, 2000, Standard Chartered Bank Nepal Limited conducted the acquisition with ANZ Grindlays Bank Limited of the Australia and New Zealand Banking Group. With this acquisition, 50 percent shares of Nepal Grindlays Bank Limited (NGBL), previously owned by ANZ Grindlays Bank Limited, change the name of bank to Standard Chartered Bank Nepal Limited with effect from 16 July 2001.

Standard Chartered has a history of over 150 years in banking and operates in many of the world’s fastest-growing markets in over 70 countries. Standard Chartered employs almost 75,000 people, representing over 115 nationalities,

worldwide. This diversity lies at the heart of the Bank's values and supports the Bank's growth as the world increasingly becomes one market.

With 16 points of representation, 17 ATMs and more than 350 local staff, Standard chartered Bank Nepal Ltd. is in a position to serve its customers through an extensive domestic network. In addition, the global network of Standard Chartered Group gives the Bank a unique opportunity to provide truly international banking services in Nepal.

b) Bank of Kathmandu Limited

Bank of Kathmandu Limited has become a prominent name in the Nepalese banking sector. Bank of Kathmandu Limited (BOK) has today become a landmark in the Nepalese banking sector by being among the few commercial banks which is entirely managed by Nepalese professionals and owned by the general public.

BOK started its operation in March 1995 with the objective to stimulate the Nepalese economy and take it to newer heights. BOK also aims to facilitate the nation's economy and to become more competitive globally. Presently, 42% of the total share capital of the bank is held by the Promoter and remaining 58% of the share capital is held by General Public. Further, BOK is providing banking services through 33 branches throughout the nation.

BOK's IT infrastructure has been designed, to facilitate, internal and customer convenience. Nationwide, all the branches are connected to the central database via Wide Area Network (WAN) powered by Finacle, state-of-the-art banking application software supported by hardware like SUN Fire V880 RISC server, VSAT etc. Internally, BOK relies on Information & Communication Technology (ICT), for a quick, reliable, efficient system. Banking operations are powered by Finacle, which is listed among the top 40 companies that have reshaped the global economy as per the Wired Magazine.

With the aim of providing banking services at the customer's fingertips, BOK is starting Internet Banking and Alert Service very soon. In Internet Banking, BOK will provide Consumer e-banking (Core, Retail and Bill Payment) as well as Corporate e-banking facilities (Trade financing and web based Cash Management).

c) Everest Bank Limited

Everest Bank Limited (EBL) started its operations in 1994 with a view and objective of extending professionalized and efficient banking services to various segments of the society. EBL joined hands with Punjab National Bank (PNB), India as its joint venture partner in 1997.

Despite fragile law and order situation especially during last 3-4 years, the Bank has recorded spectacular performance. As per audited accounts of FY 2004/2005, the Bank's operating profit was Rs. 375.20 million registering a growth of 18.9 % over the previous year. The Bank's credit recorded a growth of nearly 30 % over the last year reaching a figure of Rs 7900.09 million. Similarly, the total deposits of the Bank posted a growth of 25.22 % amounting to Rs 10097.69 million over the preceding year.

The bank is providing its services through a wide network of 23 branches across the nation and over 250 correspondents across the globe. All the major branches of the bank are connected through Anywhere Branch Banking System (ABBS), a facility which enables a customer to do banking transactions from any of the branches irrespective of their having accounts in other branch.

The Bank in association with Smart Choice Technology (SCT) is providing ATM services for its customers. EBL Debit Card can be accessed at more than 50 ATMs and over 250 Point of Sales across the nation. The bank is also managing the SCT ATM at Tribhuvan International Airport for the

convenience of the customers and the travellers, the first and the only bank in Nepal to place ATM outlet at the Airport.

Being the first Nepalese bank to open a representative office in Delhi, India, the Nepalese in India can open account in Nepal from the designated branches of Punjab National bank and remit their savings economically through banking channels to Nepal. The bank has a Drafts Drawing Arrangement with 175 branches of PNB all over India. With an aim to help Nepalese citizens working abroad, the bank has entered into arrangements with banks and finance companies in different countries which enables quick remittance of funds by the Nepalese citizens in countries like UAE, Kuwait, Bahrain, Qatar, Saudi Arabia, Malaysia, Singapore and UK.

The Bank recognizes the value of offering 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 Rentals), Home Equity Loan, Car Loan, Loan Against Shares, Loan Against Life Insurance Policies and Loan for Professionals. EBL have always endeavored in delivering innovative products suiting the consumer's requirements and needs thus enriching, enabling and beautifying their lives.

1.2 Statement of the Problem

Financial institution in Nepal have been facing several problems like lack of smooth functioning of economy, different policies and guidelines on Nepal Rastra Bank , political instability, security problems, poor information system, over liquidity caused by lack of good lending opportunity, increasing NPAs. etc. in the present context where Nepalese commercial banks are facing the problem of increasing NPAs, more amount has to be allocated for loan loss provision. As earlier mentioned, the provision amount is taken out by deducting from the profit of the bank; the profit of the bank might come down. This research has been conducted to find out the solution of following

problem:-

a. What is the proportion of non performing asset in the selected commercial banks?
b. What are the factors leading to accumulate of non performing asset?
c. What are the guidelines and provision pertaining to loan classification and loan loss provision?
d. What is the relationship between loan and loan loss provision in the selected commercial bank?
e. What is the impact of loan loss provision on the profitability of the commercial banks?

1.3 Objective of the Study

The main objective of this research was to examine and study of non performing assets of commercial banks, especially of Standard Chartered Bank of Nepal Limited, Bank of Kathmandu Limited and Everest Bank Limited. The specific objectives are:

a. To find out the level of non-performing assets in selected commercial bank.
b. To study and find the impact of non-performing assets on the profitability of the commercial bank.
c. To find out the portion of risky assets in the total assets of the commercial banks.
d. To measure the relationship between NPA with total deposit and net profit.
e. To find out the factors leading to accumulation of non performing assets in commercial bank.

1.4 Significance of the Study

It is well known fact that the financial institution and bank in Nepal has been facing the problem of increasing non- performing assets and issue becomes more and more critical. Unfortunately nowadays banks have been becoming

victims of high level of non- performing assets. Non- performing assets are those loans, which neither pay interest nor repay the principal. So non-performing assets have been becoming subject of headache to the banking sector. Likewise Nepalese banking sectors cannot escape from such truth.

Concerning to the central library of Tribhuvan University, it has been found that there are a few research regarding non- performing assets and loan loss provision. This research will be able to deliver some of the present issues, latest information and data regarding non- performing assets and loan loss provision. Hence this study will be significant to bankers, shareholders, depositors and further researcher, students etc.

1.5 Limitation of the Study

The research is conducted to fulfill the academic requirement of Master of Business degreee. It is focused on the study of non performing asset of SCBNL, BOK and EBL based of the audited financial annual reports of condition of each bank during the period 2003/04 to 2007/08. This research is tried to cover all the aspects of the non- performing assets. However the present research has the following limitation:

a. This research is concerned only with the non- performing assets of commercial bank. It doesn't consider other aspects of banks.
b. This research is focused on the Nepalese commercial bank and only three commercial bank, namely SCBNL, BOK and EBL, have been selected as sample for the study.
c. The period of the study is limited for fiscal year 2003/04 to 2007/08.
d. The accuracy of secondary data mainly relies on the annual reports of the banks and the accuracy of the primary data totally relies on the responses of the respondents. Any mispresentation, mistakes, omission etc may affect the outcome of the study. Thus, the reality of the study depends on secondary sources of the data and questionnaire filled and responses given by the respondents.

1.6 Organization of the Study

This research work has been divided into five chapters:

Chapter – I: Introduction

This chapter deals with the subject matter of the study consisting background of the study, statement of the problems, objective of the study, significance of the study, limitation of the study and organization of the study.

Chapter – II: Review of the Literature

The second chapter incorporates review of theoretical and related literature regarding the subject matter.

Chapter – III: Research Methodology

The third chapter deals with the research methodology which consist of research design, sources of dada, population and sample along with different statistical and financial tools used in this research.

Chapter – IV: Data Presentation and Analysis

This chapter deals with the main part of the research. In this chapter effort have been made to present and analyze the data in required form.

Chapter – V: Summary, Conclusion and Recommendations

This chapter deals with summary and conclusion of the research and recommendation given to the concerned organization.

Besides these chapters, Bibliography and Appendix are also presented at the end of the research.

CHAPTER – II
REVIEW OF LITERATURE

2.1 Conceptual Framework

2.1.1 Non-Performing Assets

"One of the most emerging problems of the commercial banks is to the management of non-performing assets. Due to the effects of non-analysis of Non-performing Assets of Nepalese Commercial Banks performing assets, many banks have already suffered from financial problems. In this fast pace competitive age, the bank should have to operate taking in consideration that thing.

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

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

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

NPA = (NPL+NBA+RNPL+SI+UA)

Where;

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

NBA = Non- Banking Assets

RNPL = Remaining non performing loan

SI = Suspend Interest

UA = Unutilized Assets

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

Increasing NPAs is the emerging problem of the banks. We know that the some banks are closed sown due to the uncontrollable NPAs. In USA, 1016 commercial banks were declared as unsuccessful (bankruptcy) from 1985 to 1990 and 27 banks from 1995 to 2001. However, Nepalese commercial banks face this type of problem till now but they have to take step towards it. For this, appropriate amount of bad and doubtful debts is made provision from their incomes/profits.

2.1.2 Factors for Rise in NPA

The banking sector has been facing the serious problems of the rising NPA. But the problem of NPA is more in public sector banks when compared to

private sector banks and foreign banks. The NPA in CBs are growing due to external as well as internal factors.

A) External Factors

The external factors that cause the non-performing assets are;

a. Ineffective Recovery Tribunal

"The Govt. has set of numbers of recovery tribunals, which works for recovery of loans and advances. Due to their negligence and ineffectiveness in their work the bank suffers the consequence of non-recover, their by reducing their profitability and liquidity." *(Zacharias & Ramamurthy; 2008: 13)*

b. Willful Defaults

"There are borrowers who are able to payback loans but are intentionally withdrawing it. These groups of people should be identified and proper measures should be taken in order to get back the money extended to them as advances and loans." *(Zacharias & Ramamurthy; 2008: 13)*

c. Natural Calamities

"This is the measure factor, which is creating alarming rise in NPAs of the CBs. The major natural calamities make the borrowers unable to pay back their loans. Thus the bank has to make large amount of provisions in order to compensate those loans, hence end up the fiscal with a reduced profit.

For instance, the farmers depends on rain fall for cropping. Due to irregularities of rain fall the farmers are not to achieve the production level thus they are not repaying the loans." *(Zacharias & Ramamurthy; 2008: 14)*

d. Industrial Sickness

"Improper project handling, ineffective management, lack of adequate resource, lack of advance technology, day to day changing govt. policies give

birth to industrial sickness. Hence the banks that finance those industries ultimately end up with a low recovery of their loans reducing their profit and liquidity." *(Zacharias & Ramamurthy; 2008: 15)*

e. Lack of Demand

"Entrepreneurs in developing countries could not foresee their product demand and starts production which ultimately piles up their product thus making them unable to pay back the money they borrow to operate these activities. The banks recover the amount by selling of their assets, which covers a minimum level. Thus the banks record the non-recovered part as NPAs and has to make provision for it." *(Zacharias & Ramamurthy; 2008: 15)*

f. Change on Government Policies

"With every new govt. banking sector gets new policies for its operation. Thus it has to cope with the changing principles and policies for the regulation of the rising of NPAs." *(Zacharias & Ramamurthy; 2008: 15)*

B) Internal Factors

The internal factors that raise the non performing assets are;

a. Defective Lending Process

"Defective lending process invites doubt in loan recovery safety. By safety it means that the borrower is in a position to repay the loan both principal and interest. The repayment of loan depends upon the borrowers:

a. Capacity to pay
b. Willingness to pay

Capacity to pay depends upon:

- Tangible assets
- Success in business

Willingness to pay depends on:

- Character
- Honest
- Reputation of borrower

The banker should therefore take utmost care in ensuring that the enterprise or business for which a loan is sought is a sound one and the borrower is capable of carrying it out successfully. The borrower should be a person of integrity and good character." *(Zacharias & Ramamurthy; 2008: 16-18)*

b. Inappropriate Technology

"Due to inappropriate technology and management information system, market driven decisions on real time basis can not be taken. Proper MIS and financial accounting system is not implemented in the banks, which leads to poor credit collection, thus NPA. All the branches of the bank should be computerized." *(Iyenegar; 2007: 38)*

c. Improper SWOT Analysis

"The improper strength, weakness, opportunity and threat analysis is another reason for rise in NPAs. While providing unsecured advances the banks depend more on the honesty, integrity, and financial soundness and credit worthiness of the borrower.

- Banks should consider the borrowers own capital investment.
- It should collect credit information of the borrowers from;
    a. Bankers.
    b. Enquiry from market/segment of trade, industry, business.
    c. From external credit rating agencies." *(Iyenegar; 2007: 39)*

d. Poor Credit Appraisal System

"Poor credit appraisal is another factor for the rise in NPAs. 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 NPAs." *(Iyenegar; 2007: 39)*

e. Managerial Deficiencies

"The banker should always select the borrower very carefully and should take tangible assets as security to safe guard its interests. When accepting securities banks should consider the:

a. Marketability
b. Acceptability
c. Safety
d. 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." *(Iyenegar; 2007: 40)*

f. Absence of regular industrial visit

"The irregularities in spot visit also increases the NPAs. Absence of regularly visit of bank officials to the customer point decreases the collection of interest and principals on the loan. The NPAs due to willful defaulters can be collected by regular visits." *(Reddy, Appannaiah & Satyaprasad; 2008: 65)*

2.1.3 Problems due to NPA

"The three letters Strike terror in banking sector and business circle today. NPA is short form of "Non Performing Asset". The dreaded NPA rule says

simply this: when interest or other due to a bank remains unpaid for more than 90 days, the entire bank loan automatically turns a non performing asset. The recovery of loan has always been problem for banks and financial institution. To come out of these first we need to think is it possible to avoid NPA, no can not be then left is to look after the factor responsible for it and managing those factors. The following are the major problems caused by NPA;

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

Non performing asset may spill over the banking system and contract the money stock, which may lead to economic contraction. This spill over effect can channelize through liquidity or bank insolvency:

a. When many borrowers fail to pay interest, banks may experience liquidity shortage. This can jam payment across the country,
b. Illiquidity constraints bank in paying depositors ,
c. Undercapitalized banks exceed the banks capital base." *(Reddy, Appannaiah & Satyaprasad; 2008: 70-73)*

2.1.4 Impact of NPA

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

a. Profitability

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

b. Liquidity

Money is getting blocked, decreased profit lead to lack of enough cash at hand which lead to borrowing money for shot\rtes period of time which lead to additional cost to the company. Difficulty in operating the functions of bank is another cause of NPA due to lack of money in routine payments and dues. *(Shekher & Shekher; 1998: 52)*

c. Involvement of management

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

d. Credit loss

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

2.1.4.1 Bank Growth Vs NPAs

"Following were identified as major impacts of NPAs on Banks' Growth;

a) Deterioration of Profits

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

b) Increase in Provisions

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

c) Drop in Reserves

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

d) Increasing Overhead Costs

It is costly to maintain non performing advances, since it doesn't generate an income. (Ex: follow up costs, staff costs, legal costs)

e) Increasing Market Borrowings

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

f) Drop in Share Value

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

g) Negative Image

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

2.1.4.2 NPAs impact on Economy

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

a) High Interest rates

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

b) Negative Impact on Development

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

c) Unemployment

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

d) Instability in the Banking System

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

2.1.5 Early Symptoms of NPA

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

A) Financial

- Non-payment of the very first installment in case of term loan.
- Bouncing of cheque due to insufficient balance in the accounts.
- Irregularity in installment.

- Irregularity of operations in the accounts.
- Unpaid over due bills.
- Declining Current Ratio.
- Payment which does not cover the interest and principal amount of that installment.
- While monitoring the accounts it is found that partial amount is diverted to sister concern or parent company.

B) Operational and Physical

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

C) Attitudinal Changes

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

D) Others

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

2.1.6 Preventive Measurement for NPA

The preventive measurement that can lessen the chances of occurring NPA are as follows;

a. Early Recognition of the Problem

"Invariably, by the time banks start their efforts to get involved in a revival process, it's too late to retrieve the situation- both in terms of rehabilitation of the project and recovery of bank's dues. Identification of weakness in the very beginning that is: when the account starts showing first signs of weakness regardless of the fact that it may not have become NPA, is imperative. Assessment of the potential of revival may be done on the basis of a techno-economic viability study. Restructuring should be attempted where, after an objective assessment of the promoter's intention, banks are convinced of a turnaround within a scheduled timeframe. In respect of totally unviable units as decided by the bank, it is better to facilitate winding up/ selling of the unit earlier, so as to recover whatever is possible through legal means before the security position becomes worse." *(Bidani; 2003: 75)*

b. Identifying Borrowers with Genuine Intent

"Identifying borrowers with genuine intent from those who are non- serious with no commitment or stake in revival is a challenge confronting bankers. Here the role of frontline officials at the branch level is paramount as they are the ones who has intelligent inputs with regard to promoters' sincerity, and capability to achieve turnaround. Based on this objective assessment, banks should decide as quickly as possible whether it would be worthwhile to commit additional finance." *(Bidani; 2003: 76)*

In this regard banks may consider having "Special Investigation" of all financial transaction or business transaction, books of account in order to ascertain real factors that contributed to sickness of the borrower. Banks may

have penal of technical experts with proven expertise and track record of preparing techno-economic study of the project of the borrowers.

Borrowers having genuine problems due to temporary mismatch in fund flow or sudden requirement of additional fund may be entertained at branch level, and for this purpose a special limit to such type of cases should be decided. This will obviate the need to route the additional funding through the controlling offices in deserving cases, and help avert many accounts slipping into NPA category.

c. Timeliness and Adequacy of response

"Longer the delay in response, grater the injury to the account and the asset. Time is a crucial element in any restructuring or rehabilitation activity. The response decided on the basis of techno-economic study and promoter's commitment, has to be adequate in terms of extend of additional funding and relaxations etc. under the restructuring exercise. The package of assistance may be flexible and bank may look at the exit option." *(Bidani; 2003: 78)*

d. Focus on Cash Flows

"While financing, at the time of restructuring the banks may not be guided by the conventional fund flow analysis only, which could yield a potentially misleading picture. Appraisal for fresh credit requirements may be done by analyzing funds flow in conjunction with the Cash Flow rather than only on the basis of Funds Flow." *(Bidani; 2003: 78)*

e. Management Effectiveness

"The general perception among borrower is that it is lack of finance that leads to sickness and NPAs. But this may not be the case all the time. Management effectiveness in tackling adverse business conditions is a very important aspect that affects a borrowing unit's fortunes. A bank may commit additional finance to analyze unit only after basic viability of the enterprise also in the context of

quality of management is examined and confirmed. Where the default is due to deeper malady, viability study or investigative audit should be done – it will be useful to have consultant appointed as early as possible to examine this aspect. A proper techno- economic viability study must thus become the basis on which any future action can be considered." *(Bidani; 2003: 79)*

2.1.7 Practical Approach to Manage NPAs

"The practical approaches that can enhance in managing the NPAs are as follows;" *(Rahdaswami & Vasudevan; 1984: 62-70)*

a. Improving the Appraisal system

Emphasis should be given to appraisal process to ensure proper evaluation done to establish the credit worthiness of the customer. It should be noted at the appraisal level all required information to submit in order for the approving authorities to take a credit decision.

b. Continuous Monitoring Supervision and Follow Up

Monitoring supervision and Follow-up should not be a task to be implemented when an advance turn in to loss category. Early warning signals should be identified and preventive measures should be implemented.

c. Availability of Historical Data

Availability of historical data is paramount of important in preparation of a credit proposal. So banks should have historical data base to extract past records as and when required.

d. Market Intelligence System

MIS information should be available for various reasons when taking credit decisions. (Ex: To rate a customer, to extract performance ratios)

e. Speedy Legal Actions

When all possible attempts for recovery is failed only option is to proceed with legal action and this should be speedy otherwise this will be costly.

f. Integrity

Staff integrity is also vital factors. No member in the approval cycle should take a decision based on financial rewards.

g. Rewarding Staff

Introducing a staff rewarding/incentive scheme will also support in reducing NPAs. It should be noted rewarding staff will be less costly rather than spending.

2.2 Review of NRB Directives Relating to NPA

1. Classifications of Loan and Advances: Effective from FY 2058/59 (2001/02) banks shall classify outstanding principal amount of loan and advances on the basis of aging. As per the directives issued by NRB, all loans and advances shall be classified into the following four categories:

a. **Pass Loan: -** Loans and advances whose principal amount are not past due and past due for a period up to 3 months shall be included in this category. These are classified and defined as performing loans.
b. **Sub-Standard Loan: -** All loans and advances that are past due for a period of 3 months to 6 months shall be included in this category.
c. **Doubtful Loan: -** All loans and advances which are past due for a period of 6 months to 1 year shall be included in this category.
d. **Loss: -** All loans and advances which are past due for a period of more than 1 year as well as advances which have least possibility of recovery or considered unrecoverable and those having thin possibility of even partial recovery in future shall be included in this category.

Provisions Relating to Loan Classification is depicted in the following table:

For fiscal year 2004/2005A.D. (2061/2062 B.S.)

Pass loan	Loans and advances not past due and past due up to 3 months.
Sub-standard loan	Loans and advances past due for a period of over 3 months to 6 months.
Doubtful loan	Loans and advances past due for a period over 6 months to 1 year.
Loss	Loans and advances past due for a period of over 1 Year.

2. Additional Arrangement in Respect of Pass Loan: Loan and advances fully secured by gold, silver, fixed deposit receipts, credit cards and government securities shall be include under "pass" category. Loans against fixed deposit receipts of other banks shall also qualify for inclusion under pass loan. However, where collateral of fixed deposit receipt or government securities or NRB bonds is placed as extra security, such loan has to be classified on the basis of clause 1 to clause 7. While renewing working capital loan having maturity period up to one year can be classified as pass loan. If the interest of working capital nature loans and advance is not regular, such loan and advances should be classified on the basis of interest outstanding period.

3. Additional Arrangement in Respect of loss Loan: Even if the loan is not past due, loans having any or all of the following discrepancies shall be classified as "loss".

a. Security is not sufficient,
b. The borrower has been declared bankrupt,
c. The borrower is absconding or cannot be found,
d. Purchased or discounted bills are not realized within 90 days from the due date and non fund based letter of credit and guarantees etc are not realized with in 90 days from the date of conversion into fund based are not realized within 90 days,

e. The credit has not been used for the purpose originally intended,
f. Owing to non-recovery, initiation as to auctioning of the collateral has passed six months and if the recovery process is under litigation,
g. Loan provided to the borrowers included in the blacklist of credit information center (CIC),
h. Project or business is not in operative conditions, project or business is not in operation,
i. Credit Card Loan is not written off within 90 days from past due date.

4. Additional Arrangements in Respects of Term Loan: In respect of term loans, the classification shall be made against the entire outstanding loan on the basis of the past due period of overdue installment.

5. Prohibition to Recover Principal and Interest by Overdrawing the Current Account and Exceeding the Overdraft Limit: Principal and interest on loans and advance shall not be recovered by overdrawing the borrower's current account or where overdraft facility has been extended, by overdrawing such limit. However, this arrangement shall not be constructed as prohibitive for recovering the principal and interest by debiting the customers' account. Where a system in the bank exists as to recovery of principal and interest by debiting the customers' account, and recovery is made as such resulting in overdraft, which is not settled within one month, such overdrawn principal amount shall also be liable to be include under the outstanding loan and such loan shall be downgraded by one step from its current classification. In respects if recognition of interest, the same shall be as per the clause relating to income recognition mentioned in directives no 4.

6. Letter of Credit and Guarantees: If letter of credit and guarantees and other contingent liabilities converted into fund based liabilities and have to be paid, in such condition such loan shall be classified as pass loan within 90 days

from the date of conversion into fund based. After 90 days such loan shall be classified as loss loan.

7. Rescheduling and Restructuring of the Loan: If the bank is confident on the following bases of written plan of action submitted by borrower, it may reschedule or restructure the loans and advances. Clear bases of rescheduling or restructuring should be attached with loan files.

a. If there is proof of adequate documents and collateral security relating to loan.
b. If the bank is confident in recovery of restructured or rescheduled loans and advances.

In addition to written plan of action for rescheduling or restructuring of loan, payment of at least 25 percent of total accrued interest up to the date of rescheduling of restructuring should have been collected.

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

Classification of Loan	Loan Loss Provision
Pass loan	1%
Sub-standard loan	25%
Doubtful loan	50%
Loss	100%

2.3 Review of Journals and Articles

Yam (2003), in his article, *"Non Performing Loans"*, stated that one common feature in the resolution of the NPL problem is the establishment of Asset Management Companies (AMCs) involving, inevitably, the use of public funds to take NPLs off the books of the banks. In Korea, for example, the Korea Asset Management Corporation promptly purchased almost 80 per cent of total

NPLs from banks at market value in the aftermath of the financial crisis.

In Malaysia, the national AMC, Danaharta, purchased some 40 per cent of total NPLs in the banking system. There are other examples in which bank-specific, rather than national, AMCs are formed. The recovery rate of the NPLs held by the AMCs obviously varies, depending on a host of domestic factors and how the AMCs are structured. The use of public funds in this manner is, of course, regrettable, because it could have been avoidable; but circumstances can be so unpredictable as to be beyond all reasonable risk management parameters inherent in the banking system. The globalisation of financial markets has involved risks of this nature, as we all learned from the Asian financial crisis.

Pasha and Khemraj (2005), in their article, *"The Determinants of Non-Performing Loan: An Econometric Case Study of Guyana"*, have stated that macro-factors, such as, the real effective exchange rate and growth in real GDP impacts significantly on the level of NPLs. In particular, we found that the real effective exchange rate has a strong positive association with the levels of NPLs reported by commercial banks suggesting that whenever there is a deterioration in the international competitiveness of the domestic economy (as reflected by an appreciation in the real effective exchange rate) this translates into higher NPLs. We also find evidence of a significant inverse relationship between GDP and non-performing loans. This means that strong performance in the real economy results in lower non-performing loans. Our results show that the impact of growth in real GDP on NPLs is instantaneous. The empirical results, however, reveals that inflation is not an important determinant of NPLs in the Guyanese banking system.

Wu, Chang and Selvili (2007), in their article, *"Banking System, Real State Market and Non Performing Loan"*, have stated that the risky lending behavior of banks and the recessive real estate sector can cause increasing levels of nonperforming loans. In turn, a high percentage of nonperforming loans can

push banks to adopt more restrictive real estate lending policies, causing the real estate market to slump.

The nonperforming loan ratio can indeed have an effect on bank profitability. The converse is also true: bank profitability has an impact on the nonperforming loan ratio. Further the bank profitability and the housing price have causal relationships. The nonperforming loan ratio can be explained by the GDP growth rate, the change in housing price, the relative cost of real estate borrowing, and the ratio of corporate to individual real estate loans. All but the change in housing price are important determinants of the nonperforming loan ratio. In addition, the banking profitability by including the GDP growth rate, the spread between the lending rate and the deposit rate, the total amount of loans, and the nonperforming loan ratio. The results suggested that the nonperforming loan ratio affects banking profitability negatively, as expected.

Inaba, Kozu and Sekine (2009), in their article, *"Non Performing Loans and the Real Economy; Japan's Experience"*, have explained that the deterioration in firms' balance sheets due to the collapse of land prices was responsible for the increase in NPLs. Cyclical downturns seemed to be also responsible, albeit indirectly, in that they increased quasi-NPLs. The increase in NPLs, in its turn, distorted real economic performance via malfunctioning in the banking sector. Both a "credit crunch" and "forbearance lending" took place, and these caused a decline, through the banking sector, in the efficiency of its resource allocation.

In tandem with the government, the Bank of Japan has endeavoured to restore bank health through bank supervision. Recent measures include its advocacy of the discounted cash flow methodology for provisioning, as well as the purchases of equities from the banking sector aimed at reducing banks' equity exposure and keeping it down at the level of their Tier 1 capital. The Bank has also made efforts to strengthen the monetary transmission mechanism. As part

of its efforts in this direction, the Bank decided to purchase asset-backed securities. The fall in land prices was responsible for the increase in NPLs that ended up suppressing the real growth of Japan's economy. Although the fall in land prices is generally thought to have reflected the bursting of the bubble as well as ongoing structural changes (eg rapid ageing, hollowing out, etc), there is uncertainty in quantitative sense of the extent of each factor's contribution. Further, more work is needed on banks' profitability, since bank health cannot be restored unless banks become reasonably profitable.

2.4 Review of Thesis

Shrestha (2005), in her study *"A Study on Non-Performing Loan and Loan Loss Provisioning of Commercial Banks; with reference to Nepal Bank Ltd, NABIL Bank Ltd. and Standard Chartered Bank Nepal Ltd."*, has main objective to analyze the various aspects of non-performing loan in the commercial banks. The other specific objectives of the study are;

a. To find out the proportion of non-performing loan.
b. To examine the factors lending to accumulation of non- performing loan.
c. To analyze the relationship between loan and loan loss provision.
d. To find out the impact of loan loss provision on profitability of the commercial bank.

The major findings of the study are;

a. Increasing non-performing loan is the serious problem of the banking sector in Nepal. Non-performing assets directly affects the income flow of the bank.
b. NBL has very high portion of non-performing loan resulting to higher portion. Hence, even the bank has the highest investment in the most income generating assets i.e. loan and advances, it is in loss.
c. Even the private sector bank like NABIL has higher non-performing loan and according higher provision. NABIL's average proportion on

non-performing loan during the study period is higher than the acceptable. However in recent two year NABIL's non-performing loan has shown significant decrement and according provision has also decreased.

d. Among the three banks SCBNL has the least non-performing loan and thus the least loan loss provision. From these indicators it can be said that SCBNL is the best among the three banks. However SCBNL seems less oriented towards lending. Hence, the lower percentage of NPL and provisioning of SCBNL in not only due to proper lending function but also due to relatively lower investment in loans and advances.

Khadka (2007), in his study, *"Non-Performing Assets of Nepalese Commercial Banks"*, has the main objective to examine the non-performing assets of the selected banks. The other specific objectives of the study are;

a. The analyze level of NPAs in total assets, total deposit and total landing of Nepalese commercial banks.
b. To examine the loan loss provision of the commercial banks.
c. To analyze the effects of non-performing assets on Return on Assets and Return on Equity of Nepalese commercial banks.

The major findings of the study are;

a. Escalating level of NPAs has been becoming great problem in banking business in the world. In this context, Nepal can't be run off from such situation.
b. The level of NPAs in Nepalese banking business is very alarming. It is well known fact the problem of swelling non-performing assets (NPAs) and the issue is becoming more and more unmanageable day by day.
c. The total NPA in Nepalese banking system is about 35 billion, while it is very worse in case of two largest commercial banks Rastriya Banijya Bank (RBB) and Nepal Bank Ltd. (NBL).
d. The level of NPA of Nepal Bangladesh Bank ltd.(NBBL), Nepal

SBI Bank ltd. (NSBIBL), and Bank of Kathmandu ltd (BOKL) seems very unsatisfactory. If the situation is not handing right now, it will be unmanageable and difficult to handle.

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

Pradhan (2008), in his study *"A study on Non- Performing Assets of commercial bank with references to SCBNL, RBB, Everest bank, NB bank and NBBL",* has the main objective to analyze the non-performing position in commercial banks. The other specific objectives of the study are;

a. To find out the proportion of non-performing loan and the level of NPA in total assets, total deposit and total lending in the selected commercial bank.
b. To examine loan loss provision in the commercial bank
c. To analyze the impact of non-performing assets in the performance of commercial bank.

The major findings of the study are;

a. Improper credit policy, political pressure to lend, lack of supervision and monitoring, economic slow down, overvaluation of collateral are the major cause of occurring NPA.
b. In recent year, not only the private sector's bank (like NBBL, EBL and SCBNL) but also public sector's banks (RBB and NBL) are trying to maintain their loan and advances to control over becoming the

non-performing assets.

c. High level of non-performing assets are not only decreasing the profitability of the banks but also affecting the entire financial as well as operational health of the organization. If NPA isn't controlled immediately, it will be main causes for shutdown of the banks in future.

Aryal (2008), in his study, *"Impact of NPA on Commerical Bank"*, has the main objective to analyze and identify the impact of NPA on profitability. The other specific objectives of the study are;

a. To evaluate the relationship of loan and advances with total deposit and total assets.
b. To find out the level of NPA in total loan and advance and total assets and its relationship with loan and advances, total assets and loan loss provision.
c. To find out the return on loan and advances and its relationship with loan loss provision.
d. To evaluate the relationship between profit (loss) and loan loss provision.

The major findings of the study are;

a. The average loan and advances to total assets ratio on NABIL, SCBNL, EBL, NBL, RBB and NBBL are 50.38%, 29.16%, 59.62%, 32.25%, 37.17% and 64.64% respectively during the study period. The relatively low ratio of SCBL is the indication of risk averse attitude of the management or they have the policy of investing low in the risky assets like loan and advance.
b. The loan and advances to total deposit of NABIL, SCBNL, EBL, NBL, RBB and NBBL during the study period are 58.70%, 36.85%, 73.79%, 57.79%, 70.56% and 79.42% respectively. The NBBL has the highest average ratio but SCBNL has the relatively lower ratio.

c. The average ratio of non-performing assets to total loan and advances of NABIL, SCBNL, EBL, EBL, RBB and NBBL are 7.43%, 4.43%, 2.73%, 48.83%, 56.95% and 16.34% respectively. Similarly, the means 92.57%, 95.57%, 97.27%, 51.17%, 43.05% and 83.66% of loan and advances of NABIL, SCBNL, EBL, NBL, RBB and NBBL are performing loan respectively.
d. The average return on total loans and advance ratio of NABIL, SCBNL, EBL, NBL, RBB and NBBL are 4.61%, 7.73%, -3.99%, -15.67% and 1.42% respectively. The return on loan and advances revealed that RBB seems to be failure to earn return on loan and advances.

Tamrakar (2008), in his study *"Non-Performing Assets & Profitability of Selected Nepalese Commercial Banks"*, has the main objective of the study are to examine and study the non-performing assets in total assets, total deposit and total lending of the Nepalese commercial banks. The other specific objectives of the study are;

a. To analyze the non-performing assets of the banks under study.
b. To evaluate the relationship between the profitability and the non-performing assets of the commercial banks under study.
c. To examine whether the Nepalese commercial banks are following the NRB directives regarding non-performing assets or not.

The major findings of the study are;

a. In case of Lumbini Bank Limited (LUBL), total NPA and net profit have been found to be increasing. NPA to total lending ratio have been found increasing over the years as it was 19.32% in the fiscal year 2002/03 and increased to 30.99% in the fiscal year 2006/07.
b. In case of Himalayan Bank Limited (HBL), total NPA have been decreased and net profit has been found to be increasing.
c. Similarly, in Nepal SBI Bank, total NPA and net profit have been found to be increasing. NPA to total lending ratio have found to be slightly

decreasing over the years as it was 6.32% in the fiscal year 2002/03 and increased to 6.13% in the fiscal year 2006/07.

d. The percentage of performing assets to total assets of LUBL was found to be highest among the sample banks and that of EBL was found to be lowest.
e. The correlation coefficient between ROA and level of NPA was found to be negative for each of the bank except NBBL under the study period.

CHAPTER – III
RESEARCH METHODOLOGY

3.1 Research Design

Research design is the plan, structure and strategy 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. The plan mean now researcher investigators collect the data structure in term controlling the data in term of money and time.

The main objective of research design in this study 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 trend of non-performing assets, loan recovery and profitability condition of commercial banks. The design for this research is made by collection of information from different sources by using various financial statistical tools.

3.2 Sources of Data

Making study more reliable and justifiable, both primary and secondary data have been used in this study. Published articles, books, newspaper, websites and annual reports of concerned banks are the secondary sources of data. Similarly, the responses obtained from the questionnaire form the primary data.

3.3 Population and Sample

A total number of 26 commercial banks are operation throughout the nation in the present context. Out of the total population, only three banks, namely,

Standard Chartered Bank Nepal Limited, Bank of Kathmandu Limited and Everest Bank Limited are selected as sample of the total population, to fulfill the objective of research. The sample represented 11.53% of the total populated commercial banks.

3.4 Data Processing Procedures & Analysis

Data collected from various sources were in raw form. They are classified and tabulated as per the nature of the study and in accordance of the data. Applying different financial and statistical tool made data analysis. Further to represent the data in simple form bar diagrams and graphs have also been used.

3.4.1 Financial Tools

To achieve the objectives of the study, the following financial tools have been effectively used:

A) Composition of Loans and Advances

The loans and advances of bank is composed of performing loan and non-performing loan. The composition of loans and advances depicts the amount of performing loan and non-performing loan along with their respective coverage in the total loans and advances.

$$\text{Composition of Loan and Advances} = \text{Performing Loan} + \text{Non} - \text{Performing Loan}$$

B) Composition of Non-Performing Assets

Non-Performing Assets of bank is composed of sub-standard loan, doubtful loan and loss loan. This composition demonstrates the actual credit risk of the bank by clearly depicting the coverage and amount of sub-standard loan, doubtful loan and loss loan on non-performing assets.

$$\text{Composition of Non Performing Assets} = \text{Sub} - \text{Standard Loan} + \text{Doubtful Loan} + \text{Loss Loan}$$

C) Non Performing Assets to Performing Loan

The non-performing assets to performing loan also measures the credit risk of financial institutions. Lower ratio is considered better, while ratio is unhealthy to the institutions. It measures how much of the performing loan is represented by the non-performing loan. It is calculated as follows:

$$\text{NPA to Performing Loan} = \frac{\text{Non} - \text{Performing Loan x 100}}{\text{Performing Loan}}$$

D) Non Performing Assets to Total Assets

This ratio indicates the ratio between the non-performing assets and total assets. Higher NPA to assets ratio implies the bad effects in banks performance and decreases the profit ability of the banks whereas lower ratio implies the better performance of the bank and increases the profitablilty of banks. This ratio can be calculated as follows:

$$\text{NPA to Total Assets} = \frac{\text{Non} - \text{Performing Loan x 100}}{\text{Total Assets}}$$

E) Non Performing Assets to Total Deposits

The main objective of the commercial banks is to collect deposit and lend it to secure sector. The non performing assets to total deposits measures the portion of total deposit that is having credit risk. Higher the ratio is unfavorable and thus lower ratio is preferable. This ration is calculated as:

$$\text{NPA to Total Deposits} = \frac{\text{Non} - \text{Performing Loan x 100}}{\text{Total Deposits}}$$

F) Loan Loss Provision to Total Loans and Advances

Each bank has to keep the loan loss provision for loan and advances as per the direction of Nepal Rastra Bank. The loan loss provision to total loans and advances measures the aggregate percentage of loan loss provision kept by bank on loans and advances and thus eventually measures the security position. It is calculated as follows:

$$\text{LLP to Loans and Advances} = \frac{\text{Loan Loss Provision x 100}}{\text{Total Loans and Advances}}$$

G) Loan Loss Provision to Non Performing Assets

This ratio describes the proportion of provision held to non-performing assets of the bank. This ratio measures up to what extent of risk inherent in NPA is covered by the total loan provision. Higher ratio signifies that the banks are safeguarded against future contingencies that may create due to non-performing assets. So, higher the ratio better is the financial strength of the bank. This ratio is calculated as follows:

$$\text{LLP to NPA} = \frac{\text{Loan Loss Provision x 100}}{\text{Non Performing Assets}}$$

H) Net Profit to Non Performing Assets

This ratio indicates the proportion of the return over the non-performing loan. It describes how efficiently the bank has employed its resources in recovering its non-performing loan along with the interest. Higher the ratio indicates better performance of bank and lower non-performing assets. It is calculated as follows:

$$\text{Net Profit to NPA} = \frac{\text{Net Profit x 100}}{\text{Non Performing Assets}}$$

3.4.2 Statistical Tools

The analysis could not have been done without using the statistical tools. The following statistical tools have been effectively utilized for data analysis.

A) Mean

Arithmetic mean or simply a mean of a set observations is the sum of all the observations divided by the number of observations Srithmetic mean is also know as the arithmetic average.

Let x_1, x_2, x_3, ……., x_n be the n values of the variable then their arithmetic mean be denoted by x is defined by,

$$\mathbf{x} = \frac{x_1 + x_2 + x_3 + \ldots\ldots\ldots\ldots\ldots + x_n}{n}$$

Where, n is the number of observations.

B) Standard Deviation

The standard deviation is the absolute measure of dispersion in which the drawbacks present in other measures of dispersion are removed. It is said to be the best measure of dispersion as it satisfies most of the requisites of a good measure of dispersion.

$$\text{s.d.} = \sqrt{\frac{\sum (x-\bar{x})^2}{N}}$$

C) Coefficient of Variation

The coefficient of dipersion based on standard deviation multiplied by 100 is known as the coefficient of variation (C.V.). Less the C.V., more will be the uniformity and more the C.V., less will be uniformity. If x be the arithmetic mean and s.d the standard deviation of the distribution, then the C.V. is defined by,

$$\mathbf{C.V.} = \frac{\text{S.D.} \times 100}{\text{Mean}}$$

D) Karl Pearson's Correlation Coefficient

Two values are said to have 'correlation', when they are so related that the

change in the value of one variable is accompanied by the change in the value of the other. One of the widely used mathematical methods of calculating the correlation coefficient between two variables is Karl Pearson's correlation coefficient 'r'. It is calculated as;

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

E) Probable Error

The probable error denoted by P.E. is used to measure the reliability and test of significance of correlation coefficient. Significance of relationship has been tested by using the probable error (P.E.) and it is denoted by the following model:

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

Where, r = the value of correlation coefficient

n = number of pairs of observations

if r < P.E., it is insignificant, i.e. there is no evidence of correlation

if r > 6 P.E., it is significant

if P.E. < r < 6 P.E., nothing can be concluded

F) Regression Lines

The regression line is the line, which gives the best estimate of one variable for any given value of the other variable. In case of two variables X and Y, we will have two regression lines i.e. lines is called the regression equation and also estimating equations. Since there are two regression lines, there are two regression equations.

<u>Regression equation of Y on X</u>

The regression equation is expressed as;

$y = a + bx$

We shall get the normal equation for estimating “a” and “b” as.

$\sum X = Na + b \sum Y$

$\sum XY = a\sum Y + b \sum Y^2$

Where,

X = the value of independent variable

Y = the value of dependent variable

a = Y-intercept

b = slope of the trend line/coefficient of regression

N = number of pairs of observations.

a = Y- b X

Similarly, to predict the value of one variable, dependent, on the changes of two other variables, independent, the regression line of dependent variable X1 on independent variables X_2 and X_3 is;

$X_1 = a_1 + b_1 X_2 + b_2 X_3$ …… . (i)

The values of constant a_1, b_1 and b_2 can be determined by solving following three normal equations simultaneously.

$\sum X_1 = na_1 + b_1 \sum X_2 + b_2 \sum X_3$ …… .... (ii)

$\sum X_1X_2 = a_1 \sum X_2 + b_1 \sum X_2^2 + b_2 \sum X_2X_3$ …… (iii)

$\sum X_1X_3 = a_1 \sum X_3 + b_1 \sum X_2X_3 + b_2 \sum X_3^2$ ……. (iv)

G) Trend Analysis

A widely and most commonly used method to describe the trend is the method of least square. Let the trend line between the dependent variable y and the independent variable x (i.e. time) be represented by;

$Yc = a + bx$ …… (i)

Where,

a = y intercept or value of y when x = 0

b = slope of the trend line or amount of change that comes in y of a unit change in x.

To find the value of x and y, the following equations should be solved;

$\sum y = na + b\sum x$ …….. (ii)

$\sum xy = a\sum x + b\sum x^2$ ……(iii)

CHAPTER – IV
DATA PRESENTATION AND ANALYSIS

4.1 Secondary Data Analysis

4.1.1 Composition of Loan and Advances

The loan and advances of bank should be categorized into performing loan, which further encompasses pass loan and restructured loan, and non-performing loan/assets, where sub-standard loan, doubtful loan and loss loan fall, as per the direction of NRB. Thus, the composition of loan and advances demonstrates the segregation of loan and advances into performing loan and non-performing loan/asset and thus finally delineates the credit risk.

Table 4.1
Composition of Loan and Advances

Details		Fiscal Year					Mean	S.D.	C.V.%
		2003/04	2004/05	2005/06	2006/07	2007/08			
SCBNL									
PL	Rs.	6441.66	8194.56	9010.35	10593.13	13835.26	9614.99	2793.77	29.06
	%	96.23	97.31	97.87	98.17	99.08	97.73	1.05	1.08
NPA	Rs.	252.20	226.31	195.93	197.02	128.72	200.04	46.16	23.08
	%	3.77	2.69	2.13	1.83	0.92	2.27	1.05	46.55
LA	Rs.	6693.86	8420.87	9206.28	10790.15	13963.98	9815.03	2748.66	28.00
BOK									
	Rs.	5608.37	5873.54	7285.08	9450.80	12510.82	8145.72	2876.59	35.31

PL	%	93.34	95.01	97.28	97.49	98.14	96.25	2.01	2.09
NPA	Rs.	399.94	308.51	203.62	243.30	236.90	278.45	77.82	27.95
	%	6.66	4.99	2.72	2.51	1.86	3.75	2.01	53.65
LA	Rs.	6008.31	6182.05	7488.70	9694.10	12747.72	8424.18	2830.39	33.60
EBL									
PL	Rs.	5991.09	7771.28	10007.02	13969.50	18709.12	11289.60	5107.08	45.24
	%	98.28	98.37	98.73	99.20	99.32	98.78	0.47	0.48
NPA	Rs.	104.75	128.81	129.23	113.18	127.31	120.66	11.10	9.20
	%	1.72	1.63	1.27	0.80	0.68	1.22	0.47	38.63
LA	Rs.	6095.84	7900.09	10136.25	14082.68	18836.43	11410.26	5110.71	44.79

(Source: Annual Reports of SCBNL, BOK & EBL)

The Table 4.1 shows the composition of loans and advances of SCBNL, BOK & EBL. The table has shown that in SCBNL, Performing loan (PL) has covered 96.23%, 97.31%, 97.87%, 98.17% and 99.08% of the total loans and advances in the fiscal year 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 respectively. In contrast, Non-performing Loan (NPL) has covered 3.77%, 2.69%, 2.13%, 1.83% and 0.92% of the total loans and advances in the fiscal year 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 respectively. The ratios of performing loan to total loan has followed increasing trend as a result, the non-performing loan to total loans and advances has followed decreasing trend during the five years period. The table shows that in average, the performing and non-performing loan has covered 97.73% and 2.27% respectively in the five years period taken for research. However, the variation in non-performing loan is greater than that in performing loan, as the coefficient of variation in non-performing loan to total loan (46.55%) is comparatively higher than that in performing loan to total loan (1.08%). In

addition, the loan and advances disbursed by SCBNL is in increasing trend, and in average SCBNL has granted Rs. 9815.03 millions as loan and advances.

Likewise, the ratio of performing loan to total loans and advances of BOK in the fiscal year 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 is 93.34%, 95.01%, 97.28%, 97.49% and 98.14% respectively. And, the ratio of performing loan to total loans and advances were 6.66%, 4.99%, 2.72%, 2.51% and 1.86% in the same fiscal years. In average, the performing loan covered 96.25% and non-performing loan covered 3.75% of the total loans and advances. Eventually, the variation in non-performing loan to total loan (53.65%) is higher than the variation in performing loan to total loan (2.09%). In average, BOK has granted Rs. 8424.18 millions as loan and advances.

Similarly, the coverage of performing loan on total loan of EBL is 98.28%, 98.37%, 98.73%, 99.20% and 99.32%, which is in increasing trend, in the fiscal year 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 respectively. Also, the loan and advances disbursed is in increasing trend and thus has ranged from Rs. 6095.84 millions in the fiscal year 2003/04 to Rs. 18836.43 millions in the fiscal year 2007/08. In average, the performing loan to total loan ratio is 98.78%, the non-performing loan to total loan ratio is 1.22% and the total loan is Rs. 11410.26 millions. Further the variation in non-performing assets to total loan (38.63%) is higher than the variation in performing loan to total loan (0.48%).

Comparing the banks, it can be concluded that EBL is slightly better than BOK and SCBNL, as the coverage of performing loan in total loans and advances of

EBL (98.78%) is greatest in comparison to that of SCBNL (97.73%) and BOK (96.25%).

4.1.2 Composition of Non-Performing Assets

As per the direction of NRB, the non-performing assets/loans should be further categorized into sub-standard loan, doubtful loan and loss loan. The lower the loss loan and doubtful loan the higher the chances of lower credit risk. The composition of non-performing assets of SCBNL, BOK and EBL for the five consecutive years are presented in the table 4.2.

Table 4.2

Composition of Non-Performing Assets

FY	SCBNL			BOK			EBL		
	SSL	DL	LL	SSL	DL	LL	SSL	DL	LL
2003/04	0.00	130.99	121.21	109.10	68.53	222.31	11.08	40.49	53.18
2004/05	10.44	104.52	111.35	88.42	89.81	130.28	4.41	1.98	122.42
2005/06	16.49	65.61	113.83	71.61	8.80	123.21	10.67	0.68	117.88
2006/07	16.45	66.20	114.37	39.86	36.58	166.86	4.22	2.35	106.61
2007/08	24.91	48.01	55.80	100.18	19.25	117.47	6.30	0.75	120.26
Mean	**13.66**	**83.07**	**103.31**	**81.83**	**44.59**	**152.03**	**7.34**	**9.25**	**104.07**
S.D.	**9.21**	**33.82**	**26.81**	**27.34**	**33.93**	**43.75**	**3.33**	**17.48**	**29.09**
C.V.%	**67.44**	**40.71**	**25.95**	**33.41**	**76.09**	**28.78**	**45.45**	**188.96**	**27.96**

(Source: Annual Reports of SCBNL, BOK & EBL)

The table 4.2 shows the composition of non-performing assets of the selected banks. The table has shown that the sub-standard loan of SCBNL has followed

increasing trend, except in the fiscal year 2006/07. The sub-standard loan of SCBNL was 0 millions, doubtful loan was Rs. 130.99 millions and loss loan was Rs. 121.21 millions in the fiscal year 2003/04. Except in the fiscal year 2006/07, both the doubtful loan and loss loan have followed decreasing trend. The doubtful loan has decreased from Rs. 130.99 millions to Rs. 48.01 millions and the loss loan has decreased from Rs. 121.21 millions to Rs. 55.80 millions in the fiscal year 2003/04 to 2007/08 respectively. In overall, SCBNL bank has made more emphasis in converting its loss loan to sub-standard loan and thus the sub-standard loan has followed increasing trend and other has followed decreasing trend. However, the amount of loss loan is greatest than others. In average, the sub-standard loan, doubtful loan and loss loan are Rs. 13.66 millions, Rs. 83.07 millions and Rs. 103.31 millions respectively.

Likewise, the sub-standard loan, doubtful loan and loss loan of BOK are in fluctuating trend. The sub-standard loan, doubtful loan and loss loan of BOK in the fiscal year 2003/04 are Rs. 109.10 millions, Rs. 68.53 millions and Rs. 222.31 millions respectively. At the end of fiscal year 2007/08, the sub-standard loan is Rs. 100.18 millions, doubtful loan is Rs. 19.25 millions and loss loan is Rs. 117.47 millions. The table shows that in each year the loss loan of BOK is greatest in comparison with sub-standard loan and doubtful loan. In average, BOK has maintained Rs. 81.83 millions, Rs. 44.59 millions and Rs. 152.03 millions as sub-standard loan, doubtful loan and loss loan respectively.

Similarly, the non-performing assets composition of EBL is also in fluctuating trend. The sub-standard loan has ranged from Rs. 4.22 millions in the fiscal year 2006/07 to Rs. 11.08 millions in the fiscal year 2003/04. The doubtful loan has ranged from Rs. 0.68 millions in the fiscal year 2005/06 to Rs. 40.49

millions in the fiscal year 2003/04. And the loss loan has ranged from Rs. 53.18 millions in the fiscal year 2003/04 to Rs. 122.42 millions in the fiscal year 2004/05. In average, the sub-standard loan, doubtful loan and loss loan of EBL are Rs. 7.24 millions, Rs. 9.25 millions and Rs. 104.07 millions respectively.

Comparing three banks, it can be concluded that there is highest credit risk in EBL in comparison with SCBNL and BOK, since the sub-standard loan of EBL was almost fifteen times lower than the loss loan, which verifies the inefficiency of EBL in converting the status of loss loan. While the loss loan of SCBNL is in decreasing trend and the sub-standard loan of BOK is only half of the loss loan approximately in average.

4.1.3 Non-Performing Assets/Loan to Performing Loan

This ratio measures the representation of non-performing assets on the performing loan of the bank. The lower the ratio of non-performing assets to performing loan, the better will be the loan management. The ratio of non-performing assets to performing loan of SCBNL, BOK and EBL from the fiscal year 2003/04 to 2007/08 is presented in the table 4.3.

Table 4.3

Non-Performing Assets to Performing Loan

FY	SCBNL			BOK			EBL		
	NPA	PL	Ratio	NPA	PL	Ratio	NPA	PL	Ratio
2003/04	252.2	6441.66	3.92	399.94	5608.37	7.13	104.75	5991.09	1.75
2004/05	226.31	8194.56	2.76	308.51	5873.54	5.25	128.81	7771.28	1.66

2005/06	195.93	9010.35	2.17	203.62	7285.08	2.80	129.23	10007.02	1.29
2006/07	197.02	10593.13	1.86	243.30	9450.80	2.57	113.18	13969.50	0.81
2007/08	128.72	13835.26	0.93	236.90	12510.82	1.89	127.31	18709.12	0.68
Mean			**2.33**			**3.93**			**1.24**
S.D.			**1.11**			**2.19**			**0.48**
C.V.%			**47.55**			**55.86**			**39.03**

(Source: Appendix - II)

The Table 4.3 has depicted the ratio of non-performing loan to performing loan of sampled banks. The table showed that the ratio of non-performing loan to performing loan of SCBNL is in decreasing trend, which indicated that the increment in Performing loan is comparatively higher than the increment in non-performing assets. The ratio has ranged from 0.93% in the fiscal year 2007/08 to 3.92% in the fiscal year 2003/04. Similarly, in average the non-performing loan has represented only 2.33% of the performing loan and the variance in the ratio is 47.55%, which has delineated higher inconsistency.

Likewise, the ratio in BOK has also followed decreasing trend and the ratio for the fiscal year 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 is 7.13%, 5.25%, 2.80%, 2.57% and 1.89% respectively. In average, the non-performing loan has represented 3.39% of the performing loan and the variation in the ratio is 55.86%.

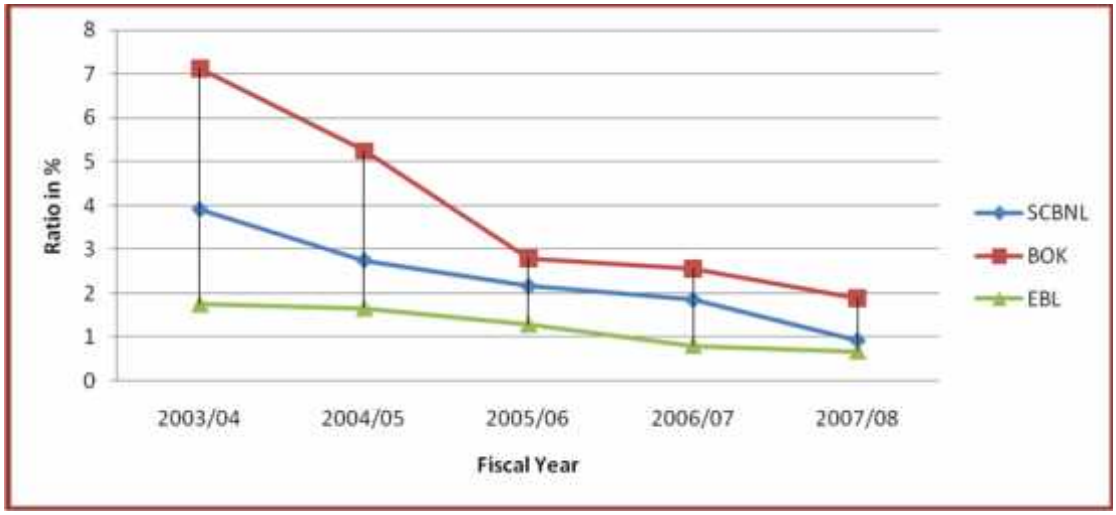
Also, the non-performing asset to performing loan of EBL is in decreasing trend. The ratio has ranged from 1.75% in the fiscal year 2003/04 to 0.68% in the fiscal year 2007/08. In average, the non-performing loan has represented

1.24% of the total performing loan and the coefficient of variation in the ratio is 39.03%.

Comparing three banks on the basis of average non-performing loan to performing loan, it can be concluded that the chances of turning total loans and advances in non-performing loan is lowest in EBL than in SCBNL and BOK, as the ratio of non-performing assets to performing loan of EBL (1.24%) is lower than that of SCBNL (2.33%) and BOK (3.93%).

Figure 4.1

Non-Performing Assets to Performing Loan



4.1.4 Non-Performing Assets to Total Assets

This ratio measures the coverage of non-performing assets on total assets of the organization. The higher the ratio indicates higher maintenance of risky assets, as the recovery of non-performing assets is uncertain. The non-performing assets to total assets of SCBNL, BOK and EBL for the five fiscal year periods taken for study are presented in the Table 4.4.

Table 4.4

Non-Performing Assets to Total Assets

FY	SCBNL			BOK			EBL		
	NPA	TA	Ratio	NPA	TA	Ratio	NPA	TA	Ratio
2003/04	252.2	23642.06	1.07	399.94	9496.34	4.21	104.75	9608.57	1.09
2004/05	226.31	21781.68	1.04	308.51	9857.13	3.13	128.81	11732.52	1.10
2005/06	195.93	25776.33	0.76	203.62	12278.33	1.66	129.23	15959.29	0.81
2006/07	197.02	28596.69	0.69	243.3	14581.39	1.67	113.18	21432.57	0.53
2007/08	128.72	33335.79	0.39	236.9	17721.92	1.34	127.31	27149.35	0.47
Mean			**0.79**			**2.40**			**0.80**
S.D.			**0.28**			**1.23**			**0.30**
C.V.%			**35.48**			**51.14**			**37.37**

(Source: Appendix - II)

The Table 4.4 shows the ratio of non-performing loans to total assets. The table has depicted that the ratio of NPA to Total Assets of SCBNL has followed declination in each period, which is a good indicator of loan management, especially loan recovery. The ratio is 1.07% in the fiscal year 2003/04 and eventually decreases to 0.9% in the fiscal year 2007/08. In average, SCBNL has maintained the ratio of 0.79% in the five year periods. However, the coefficient of variation in such ratio is 35.48%, which has delineated higher degree of inconsistency.

Similarly, the ratio of non-performing assets to total assets of BOK is also in decreasing trend, except in the fiscal year 2006/07 when there is paltry increment in comparison to the previous year. The ratio of non-performing assets to total assets of BOK is 4.21%, 3.13%, 1.66%, 1.67% and 1.34% in the fiscal year 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 respectively. In average, 2.40% of the total assets of BOK is covered by non-performing assets.

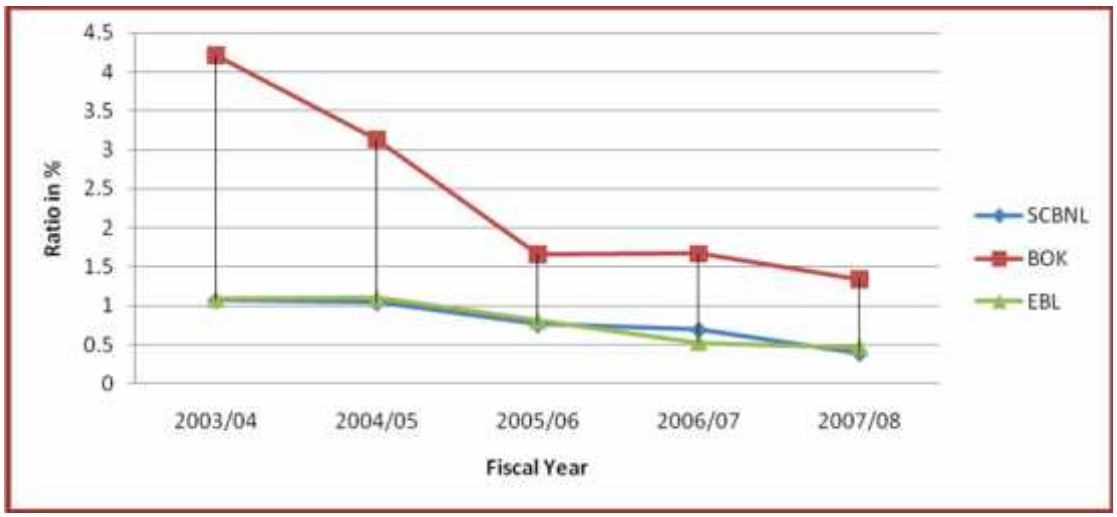
Likewise, except in the fiscal year 2004/05, the ratio of non-performing assets to total assets of EBL is also in decreasing trend. The ratio is 1.09%, 1.10%, 0.81%, 0.53% and 0.47% in the fiscal year 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 respectively. In average, 0.80% of the total assets is represented by non-performing assets and the coefficient of variation in such ratio is 37.37%.

Comparing three banks on the basis of non-performing loan to total assets, it can be considered that SCBNL is best in comparison to that of BOK and EBL, since the average ratio of SCBNL (0.79%) is least than that of BOK (2.40%) and EBL (0.80%). Also, SCBNL has most control over the non-performing assets than BOK and EBL, as the ratio gradually declined in each year. In addition, the

great declination made by BOK, i.e. from 4.21% in the fiscal year 2003/04 to 1.34% in the fiscal year 2007/08, is also laudable.

Figure 4.2

Non-Performing Assets to Total Assets



4.1.5 Non-Performing Assets to Total Deposit

The non-performing asset to total deposit measures the mobility of total deposit in non-performing assets. The higher ratio indicates higher misuse of total deposits. The ratio of SCBNL, BOK and EBL for the five fiscal year periods is presented in table 4.5.

Table 4.5

Non-Performing Assets to Total Deposits

FY	SCBNL			BOK			EBL		
	NPA	TD	Ratio	NPA	TD	Ratio	NPA	TD	Ratio

2003/04	252.20	21161.44	1.19	399.94	7741.65	5.17	104.75	8063.90	1.30
2004/05	226.31	19363.47	1.17	308.51	8942.75	3.45	128.81	10097.69	1.28
2005/06	195.93	23061.03	0.85	203.62	10485.36	1.94	129.23	13802.44	0.94
2006/07	197.02	24647.02	0.80	243.30	12388.93	1.96	113.18	18186.25	0.62
2007/08	128.72	29744.00	0.43	236.90	15833.74	1.50	127.31	23976.30	0.53
Mean			**0.89**			**2.80**			**0.93**
S.D.			**0.31**			**1.51**			**0.36**
C.V.%			**35.04**			**53.96**			**38.26**

(Source: Appendix - II)

The table 4.5 has delineated the coverage of non-performing assets on total deposit. The table shows that ratio declined in each year in SCBNL. The ratio was 1.19%, 1.17%, 0.85%, 0.80% and 0.43% in the fiscal year 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 respectively. The ratio has been decreased by almost 1/3 times in the final year 2007/08 compared to that of fiscal year 2003/04. In average, SCBNL has mobilized 0.89% of its total deposits in non-performing assets and the coefficient of variation is 35.04%.

Likewise, the ratio of non-performing assets to total deposit of BOK has decreased for the first three years, i.e. from 5.17% in the fiscal year 2003/04, increased to 1.94% in the fiscal year 2005/06 and then increased to 1.96% in

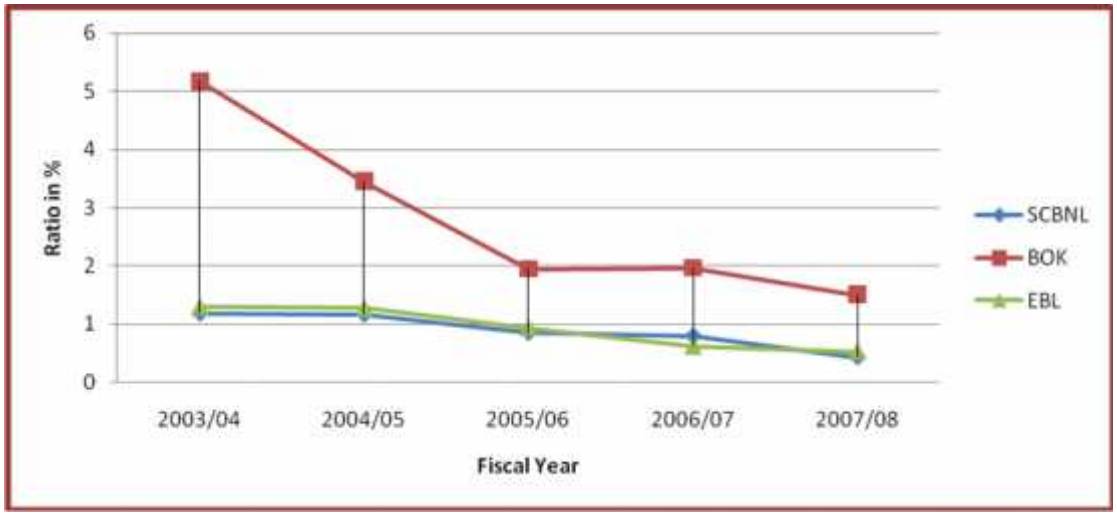
the fiscal year 2006/07, and finally decreased to 1.50% in the fiscal year 2007/08. This shows that except in the fiscal year 2006/07, BOK has good control over non-performing assets. In average, the ratio of total deposit mobilization in non-performing assets is 2.80% and the coefficient of variation is 53.96%.

Similarly, the non-performing asset to total deposit of EBL is also in decreasing trend. The ratio has remained 1.30%, 1.28%, 0.94%, 0.62% and 0.53% in the fiscal year 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 respectively. In average, 0.93% of the total deposit of EBL has turned into non-performing assets and the coefficient of variation in such ratio is 38.26%.

Comparing three sampled banks on the basis of non-performing assets to total deposit, it can be concluded that the total deposit of SCBNL has been effectively utilized in higher secured sector than that of BOK and EBL, as the ratio of non-performing assets to total deposit of SCBNL (0.89%) is least in comparison to that of BOK (2.80%) and EBL (0.93%).

Figure 4.3

Non-Performing Assets to Total Deposits



4.1.6 Loan Loss Provision to Total Loans and Advances

As per the direction of NRB, each bank has to keep 1% of the pass loan, 25% of the sub-standard loan, 50% of the doubtful loan and 100% of the loss loan as provision. The loan loss provision to total loan and advances measures the aggregate provision kept by the bank. The loan loss to total loans and advances of SCBNL, BOK and EBL for the five consecutive years is presented in Table 4.6.

Table 4.6

Loan Loss Provision to Total Loans and Advances

FY	SCBNL			BOK			EBL		
	LLP	LA	Ratio	LLP	LA	Ratio	LLP	LA	Ratio
2003/04	283.62	6693.86	4.24	361.61	6008.31	6.02	211.72	6095.84	3.47
2004/05	277.66	8420.87	3.30	269.47	6182.05	4.36	281.42	7900.09	3.56
2005/0	270.8	9206.28	2.94	229.6	7488.70	3.07	334.9	10136.2	3.30

6	6			2			4	5	
2006/07	287.51	10790.15	2.66	294.77	9694.10	3.04	418.60	14082.68	2.97
2007/08	245.38	13963.98	1.76	285.08	12747.72	2.24	497.34	18836.43	2.64
Mean			**2.98**			**3.74**			**3.19**
S.D.			**0.91**			**1.48**			**0.38**
C.V.%			**30.38**			**39.57**			**11.95**

(Source: Appendix - II)

The table 4.6 shows the ratio of loan loss provision kept on total loan. The table shows that the loan loss provision of SCBNL has followed decreasing trend in each year compared to the previous year. This might be due to good loan management policy adopted by the bank. The ratio is 4.24% in the fiscal year 2003/04, which has decreased to 3.30% in the fiscal year 2004/05, has decreased to 2.94% in the fiscal year 2005/06, again has decreased to 2.66% in the fiscal year 2006/07 and finally has reached to 1.76% in the fiscal year 2007/08. The decreasing trend of loan loss provision indicates that the amount of pass loan and restructured loan is comparatively higher than sub-standard, doubtful and loss loan in SCBNL. In average, SCBNL kept 2.98% of its total loan as loan loss provision.

Similarly, the ratio of loan loss provision to total loan in BOK has also followed decreasing trend in the five consecutive fiscal years. The ratio is 6.02% in the fiscal year 2003/04, which followed decreasing trend and is 4.36% in the fiscal

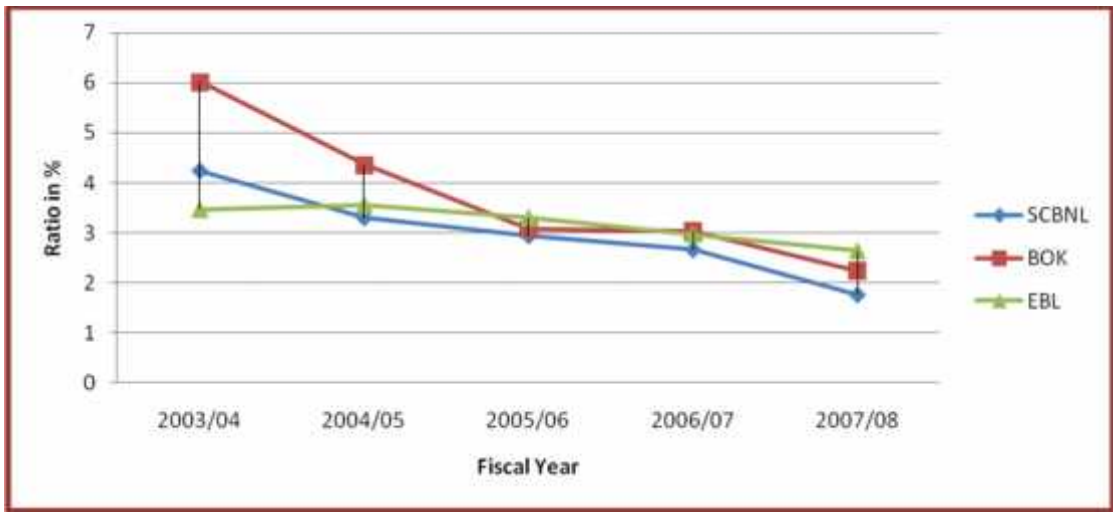
year 2004/05, 3.07% in the fiscal year 2005/06, 3.04% in the fiscal year 2006/07 and 2.24% in the fiscal year 2007/08. In average, BOK has maintained 3.74% of the total loan as loan loss provision. And the coefficient of variation of 39.57% has indicated inconsistency in the ratio.

However in EBL, the ratio has increased from 3.47% in the fiscal year 2003/04 to 3.56% in the fiscal year 2004/05. From then, the ratio has followed decreasing trend and is 3.30% in the fiscal year 2005/06, 2.97% in the fiscal year 2006/07 and 2.64% in the fiscal year 2007/08. In average, EBL has kept 3.19% of the total loan and advances as loan loss provision and the coefficient of variation in such ratio is 11.95% indicating quite consistency.

Comparing the banks on the basis of loan loss provision to total loan disbursement, it can be concluded that SCBNL has better coverage of pass loans and restructured loan on total loan as the average ratio of loan loss provision of SCBNL (2.98%) is lowest in comparison to that of BOK (3.74%) and EBL (3.19%). However, BOK has remained most success to make a wide reduction in the ratio.

Figure 4.4

Loan Loss Provision to Total Loans and Advances



4.1.7 Loan Loss Provision to Non-performing Assets

The non-performing assets is considered much risky than the performing loan and finally affects the financial performance of the company. Thus, to remain secure each bank has to keep more portion of the non performing assets, 25% of sub-standard loan, 50% of doubtful loan and 100% of loss loan as provision. The loan loss provision to non-performing assets measures the aggregate representation of loan provision on non-performing assets. The ratio of SCBNL, BOK and EBL for the five year periods is presented in the Table 4.7.

Table 4.7

Loan Loss Provision to Non-performing Assets

FY	SCBNL			BOK			EBL		
	LLP	**NPA**	**Ratio**	**LLP**	**NPA**	**Ratio**	**LLP**	**NPA**	**Ratio**
2003/04	283.62	252.2	112.46	361.61	399.94	90.42	211.72	104.75	202.12
2004/05	277.66	226.31	122.69	269.47	308.51	87.35	281.42	128.81	218.48
2005/06	270.86	195.93	138.24	229.62	203.62	112.77	334.94	129.23	259.18
2006/07	287.51	197.02	145.93	294.77	243.3	121.15	418.6	113.18	369.85
2007/08	245.38	128.72	190.63	285.08	236.9	120.34	497.34	127.31	390.65
Mean			**141.99**			**106.40**			**288.06**
S.D.			**30.17**			**16.36**			**87.00**
C.V.%			**21.25**			**15.38**			**30.20**

(Source: Appendix - II)

The table 4.7 depicts the ratio of loan loss provision on non-performing assets. The table delineates that the ratio of loan loss provision on non-performing assets of SCBNL has increased during the five year periods taken for study. The loan loss provision kept is 112.46%, 122.69%, 138.24%, 145.93% and 190.63% of the total non-performing assets in the fiscal year 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 respectively. In average, SCBNL has provisioned 141.99% of the non-performing assets as loan loss provision and the coefficient of variation in such ratio is 21.25%.

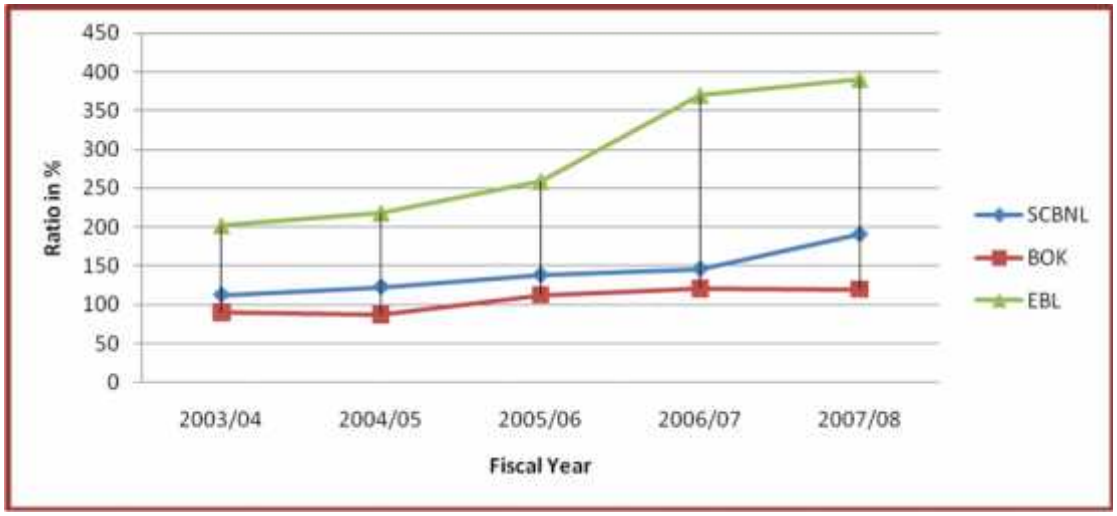
Similarly, the loan loss provision kept by BOK is in fluctuating trend and thus is 90.42% in the fiscal year 2003/04, which has decreased to 87.35% in the fiscal year 2004/05, again has increased to 112.77% in the fiscal year 2005/06 and to 121.15% in the fiscal year 2006/07 and finally has decreased to 120.34% in the fiscal year 2007/08 of the total non-performing assets. In average, BOK has kept 106.40% of the non-performing assets as loan loss provision. Eventually, the coefficient of variation in such ratio is 15.38%, indicating satisfactory consistency.

In contrast to BOK, the loan loss provision to non performing assets of EBL is in increasing trend. The ratio has ranged from 202.12% in the fiscal year 2003/04 to 390.65% in the fiscal year 2007/08. In average, EBL has kept 288.06% if the total non performing assets as loan loss provision and the coefficient of variation in such ratio is 30.20%.

Comparing the banks, it can be concluded that EBL has remained most secured from non-performing assets in comparison to SCBNL and BOK, since the loan loss provision to non-performing assets of EBL (288.06%) is highest in comparison to that of SCBNL (141.99%) and BOK (106.40%).

Figure 4.5

Loan Loss Provision to Non-performing Assets



4.1.8 Net profit to Non-Performing Assets

This ratio shows the relationship of non-performing assets with the net profit of the company. The higher the non-performing assets, the lower will be the net profit. The net profit to non-performing assets of SCBNL, BOK and EBL for the five year periods are presented in the Table 4.8.

Table 4.8

Net profit to Non-Performing Assets

FY	SCBNL			BOK			EBL		
	NP	NPA	Ratio	NP	NPA	Ratio	NP	NPA	Ratio
2003/04	537.80	252.20	213.24	127.47	399.94	31.87	143.57	104.75	137.06

2004/05	536.24	226.31	236.95	139.53	308.51	45.23	168.21	128.81	130.59
2005/06	658.76	195.93	336.22	202.44	203.62	99.42	237.29	129.23	183.62
2006/07	691.67	197.02	351.07	262.39	243.30	107.85	296.41	113.18	261.89
2007/08	818.92	128.72	636.20	361.50	236.9	152.60	451.22	127.31	354.43
Mean			**354.74**			**87.39**			**213.52**
S.D.			**168.43**			**49.18**			**94.62**
C.V.%			**47.48**			**56.28**			**44.32**

(Source: Appendix - II)

The table 4.8 represents the ratio of net profit to non-performing assets. The table shows that in SCBNL the ratio is in increasing trend, since the net profit amount is in increasing trend and the non-performing assets is in decreasing trend. The ratio has ranged from 213.24% in the fiscal year 2003/04 to 636.20% in the fiscal year 2007/08. In average, the net profit has represented 354.74% of the non performing assets and the coefficient of variation in the ratio is 47.48%. Thus, it can be inferred that non-performing assets has inverse relationship with the net profit of SCBNL.

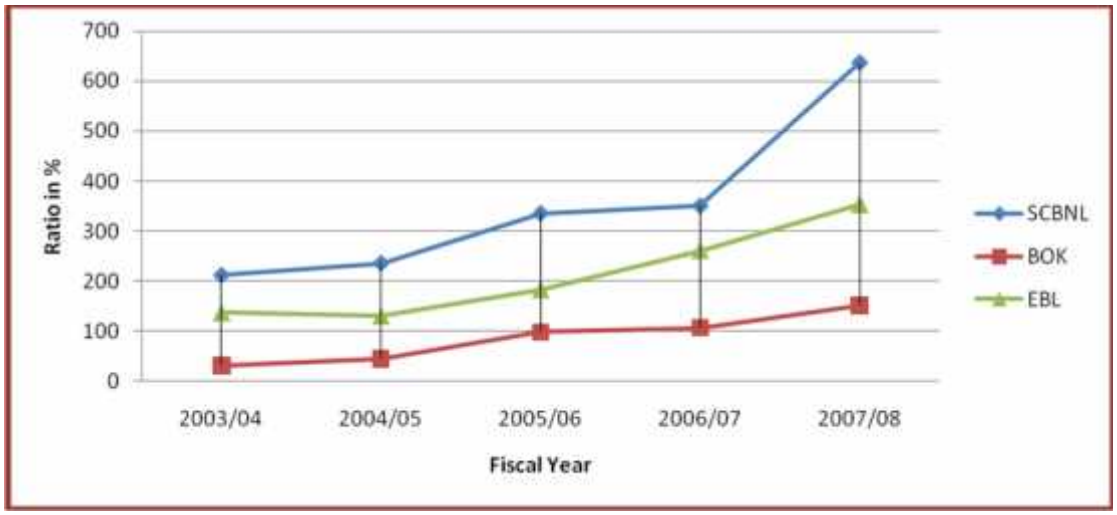
Likewise in BOK, the net profit amount is in increasing trend and the non-performing assets is in decreasing trend, as a result the ratio of net profit on non-performing assets is in increasing trend. The ratio is highest, 152.60%, in the fiscal year 2007/08 and lowest, 31.87%, in the fiscal year 2003/04. In average, the net profit represented 87.39% of the total non-performing assets and the coefficient of variation in such ratio is 56.28%, indicating high inconsistency.

However in EBL, there is no such perfect inverse synchronization between net profit and non-performing assets. Since, the ratio of net profit to non-performing assets has increased even in the increment in non performing assets, for instance, in the fiscal year 2005/06 and in 2007/08. This seemed that non-performing assets is not the only sole factor to deteriorate the net profit. The ratio has ranged from 130.59% in the fiscal year 2004/05 to 354.43% in the fiscal year 2007/08. And in average, the net profit of EBL represented 213.52% of the total non-performing assets.

Comparing three banks, it can be concluded that there exists inverse relationship between non-performing assets and net profit in SCBNL and BOK. However, there is no such relationship between these two variables in EBL.

Figure 4.6

Net profit to Non-Performing Assets



4.1.9 Simple Correlation and Regression Analysis

To analyze the relationship of NPA with total loan and net profit, simple correlation coefficient and regression analysis have been done.

4.1.9.1 Correlation between Non-Performing Assets and Total Loan

The correlation coefficient measures the relationship between two variables, viz, Non-Performing Assets (NPA) and Total Loan and Advances (LA). To whether NPA increases with the increment in loan and advances, the Karl Pearson's correlation coefficient 'r' has been calculated and the significance of the value of 'r' is tested through probable error.

Table 4.9

Correlation Coefficient between NPA and LA

Bank	r	r^2	P.E.	6 P.E.	Remarks
SCBNL	-0.9768	0.9542	0.0138	0.0829	Significant
BOK	-0.5847	0.3419	0.1985	1.1911	Insignificant
EBL	0.3279	0.1075	0.2692	1.6153	Insignificant

(Source: Appendix- III)

The table 4.9 shows that the relationship between NPA and loan and advances of SCBNL is negative, which indicates that the dependent variable, NPA decreases with the increase in independent variable, Total loan and advances. The correlation coefficient between NPA and LA is -0.9768, which is perfectly negative. Similarly, the coefficient of determination is 0.9542, which explicates that 95.42% variation in NPA is explained by change in total loan and advances. Also, the calculated probable error and the 6 P.E. are 0.0138 and 0.0829 respectively. The lower value of 6 P.E. than the correlation coefficient, /r/, (/r/ = 0.9768 > 6 P.E. = 0.0829) implies that the negative relationship between NPA and loan and advances of SCBNL is statistically significant and hence it can be concluded that SCBNL is success in lowering non-performing

assets even in the increment in loan and advances.

Likewise, the relationship between NPA and loan and advances of BOK is moderately negative, indicating that the dependent variable, NPA decreases along with the increase in independent variable, LA. The correlation coefficient between these two variables is -0.5847, which depicts that Rs. 100 increase in loan and advance causes Rs. 58.47 decrease in NPA. Also, the coefficient of determination, 0.3419, explicates that 34.19% variation in NPA is explained by change in LA. The calculated probable error and 6 P.E. on these variables are 0.1985 and 1.1911 respectively. The higher the value of 6 P.E. than the correlation coefficient, /r/, (6 P.E. = 1.1911 > /r/ = 0.5847) implies that the moderate negative relationship between NPA and LA is statistically insignificant.

However, there is positive relationship between non performing assets and loan and advances of EBL. The correlation coefficient between these two variables is 0.3279 and the probable error and 6 P.E. are 0.2692 and 1.6153 respectively. The higher the value of 6 P.E. than the calculated correlation coefficient indicates that the relationship between the variables is statistically insignificant and hence non performing assets does not increase with the increase in loan and advances.

4.1.9.2 Regression Line of NPA on LA

Let NPA be the dependent variable, Y and LA be the independent variable, X then the regression lines of NPA on LA calculated in the *Appendix-III* are;

$$Y_c = a + bX$$

NPA_{SCBNL} = 361.05 - 0.02 LA_{SCBNL}

NPA_{BOK} = 413.89 – 0.02 LA_{BOK}

NPA_{EBL} = 112.53 + 0.001 LA_{EBL}

Table 4.10

Regression Analysis of NPA on LA

Bank	a-value	b-value	t-cal	t-tab	Remarks
SCBNL	361.05	-0.02	7.91	2.776	Significant
BOK	413.89	-0.02	1.25	2.776	Insignificant
EBL	112.53	0.001	0.60	2.776	Insignificant

(Source: Appendix- III)

The table 4.10 shows the regression line of NPA on LA. The regression line of NPA on LA of SCBNL shows that NPA has negative relationship with lo and advances. Similarly, the constant of 361.05 indicates that the non performing assets of SCBNL decreases by Rs. 0.02 with per rupee increment in loan and advances, which indicates better management of loan and advances in SCBNL. Since, the calculated t-value at 5% level of significance and 4 degree of freedom of 7.91, which is comparatively higher than the tabulated t-value (2.776), implies that the relationship between NPA and loan and advances is statistically significant and hence NPA decrease with the increase in loan and advances.

Likewise, the regression line of non-performing assets on loan and advances of BOK depicts that NPA has negative relationship with LA and hence NPA decreases by Rs. 0.02 with per rupee increase in LA, if the other variable,

413.89, remains constant. However, the calculated t-value (1.25) is lower than the tabulated t-value (2.776), which directly implies that the relationship between NPA and LA is statistically insignificant and hence it is not mandatory that NPA should decrease by Rs. 0.02 with per rupee increase in LA.

However, there exists positive relationship between NPA and loan and advances of EBL. The regression line indicates that the NPA of EBL increases by Rs. 0.001 with the per rupee increase in loan and advances, if other things remain constant. But the lower the value of t_{cal} (0.60) than the t_{tab} (2.776) at 5% denies the fact and infers that there exists no such statistically significant relationship between these two variables.

4.1.9.3 Correlation between Net Profit (NP) and Non-performing Assets

The correlation coefficient between Net Profit and NPA calculated in the Appendix-III and the test of significance through 6 P.E. has been presented in the Table 4.11.

Table 4.11

Correlation Coefficient between NP and NPA

Bank	r	r^2	P.E.	6 P.E.	Remarks
SCBNL	-0.9646	0.9305	0.0210	0.1257	Significant
BOK	-0.6572	0.4319	0.1714	1.0283	Insignificant
EBL	0.3498	0.1224	0.2647	1.5884	Insignificant

(Source: Appendix- III)

The table 4.11 depicts the relationship of NP and NPA on the basis of correlation coefficient. The table shows that the relationship between NPA and NP of SCBNL is negative, -0.9646, indicating that Net Profit decreases along with the increase in Non-performing assets. Also, the coefficient of determination, r^2, implies that 93.05% variation in Net Profit is explained by change in NPA. The calculated P.E. and 6 P.E. between the relationship of these two variables, NP and NPA, are 0.0210 and 0.1257 respectively. As the /r/ value is higher than the 6 P.E. (/r/ = 0.9646 > 6 P.E. = 0.1257), it can be considered that the relationship between Net Profit and Non-Performing Assets is statistically significant, and hence net profit decreases with the increase in NPA.

Likewise, the relationship between NP and NPA of BOK is moderately negative, i.e. r = -0.6572. Also, the coefficient of determination r^2, 0.4319, implies that NP changes by 43.19% with the change in value of NPA. The P.E. and 6 P.E. on the relationship between these two variables, NP and NPA, are 0.1714 and 1.0283 respectively. Further, the lower the value of /r/ than the value of 6 P.E. (/r/ = 0.6572 < 6 P.E. = 1.0283) verifies that the relationship between NP and NPA is statistically insignificant and hence NPA has no role to play to vary the value of NP in case of BOK.

However there exists positive relationship between net profit and NPA in EBL. The correlation between these two variables is 0.3498, and the probable error and 6 P.E. are 0.2647 and 1.5884 respectively. Since the value of 6 P.E. is greater than the value of 'r', the relationship between these variables is statistically insignificant, and hence it is uncertain that NP of EBL always increases with the increase in NPA.

4.1.9.4 Regression line of NP on NPA

Let NP be the dependent factor, Y and NPA be the independent factor, X. Then the regression line of dependent variable, NP on the independent variable, NPA is given by;

$Y_c = a + bX$

$NP_{SCBNL} = 1142.71 - 2.47\ NPA_{SCBNL}$

$NP_{BOK} = 445.29 - 0.81\ NPA_{BOK}$

$NP_{EBL} = -207.69 + 3.87\ NPA_{EBL}$

Table 4.12

Regression Analysis of NP on NPA

Bank	a-value	b-value	t-cal	t-tab	Remarks
SCBNL	1142.71	-2.47	6.34	2.776	Significant
BOK	445.29	-0.81	1.51	2.776	Insignificant
EBL	-207.69	3.87	0.65	2.776	Insignificant

(Source: Appendix- III)

The table 4.12 demonstrates the regression line of dependent variable, NP on independent variable, NPA. The table delineates that the beta coefficient of NPA on regression line of SCBNL is -2.47, which indicates that if NPA increases by Re. 1, NP decreases by Rs. 2.47, assuming that the other variable, 1142.71, remains stable. Also, the higher the value of t_{cal}, 6.34, than the value of t_{tab}, 2.776, at 5% level of significance and 4 d.f. buttress this fact and implies that there exist significant relationship between NP and NPA.

Similarly, the regression line of Net Profit on Non Performing Assets of BOK indicates that Net Profit has negative relationship with Non Performing Assets and hence NP decreases along with the increase in NPA and vice-versa. The beta coefficient of NPA, -0.81, signals that NP decreases by Rs. 0.81 along with per rupee increase in NPA, if the other variable, 445.29 remains constant. However, the t-statistics shows that t_{cal}, 1.51, is lower than t_{tab}, 2.776, at 5% level of significance and 4 d.f. and hence denies to agree that Net Profit should decrease by Rs. 0.81 when Non Performing Assets increases by Re. 1.

In contrast, there exists positive relationship between net profit and non-performing assets of EBL. The beta coefficient indicates that the net profit increases by Rs. 3.87 with per rupee increase in non-performing assets. However, the lower value of t_{cal} (0.65) than the t_{tab} (2.776) weakens this results and further signifies the relationship between net profit and non performing loan is statistically insignificant.

4.1.10 Relationship of Net Profit with NPA and Loan & Advances

To measure the joint effect of NPA and Total Loan and Advances (LA) on Net Profit (NP), the multiple correlation and multiple regression analysis have been analyzed.

4.1.10.1 Multiple Correlations between NP, NPA and PL

Let correlation coefficient between NP and NPA be denoted by r_{12}, NPA and LA be denoted by r_{23}, and NP and LA be denoted by r_{13}. Then the multiple correlation coefficient of NP on NPA and LA is given by; *(Appendix-IV)*

$$R_{1.23} = r^2_{12} + \sqrt{r^2_{13} - 2\, r_{12}\, r_{23}\, r_{13}}$$

$$1-r^2_{23}$$

$R_{NP.NPA\ LA}$ (SCBNL) = 0.9674

$R_{NP.NPA\ LA}$ (BOK) = 0.9996

$R_{NP.NPA\ LA}$ (EBL) = 0.9812

Table 4.13

Multiple Correlations between NP, NPA and LA

Banks	R	Relationship	R^2	P.E.	6 P.E.	Remarks
SCBNL	0.9674	+ ve	0.9360	0.0193	0.1159	Significant
BOK	0.9996	+ ve	0.9992	0.0002	0.0014	Significant
EBL	0.9906	+ ve	0.9812	0.0057	0.0340	Significant

(Source: Appendix-IV)

The above table 4.13 shows the multiple correlation between Net Profit (NP), Non-Performing Assets (NPA) and Loan and Advances (LA) of the concerned banks during the year covered for research. The multiple correlation coefficients (R) between NP, NPA and LA of SCBNL, BOK and EBL is 0.9674, 0.9996 and 0.9906 respectively, which show the positive relationship between these variables of all the banks.

The coefficient of multiple determination (R^2) of SCBNL is 0.9360, which is lowest in comparison than that of BOK (0.9992) and EBL (0.9812). It shows that, in case of SCBNL, 93.60% of variation in dependent variable (NP) is explained by the variation in independent variables (NPA and LA). Similarly, 99.92% variation in dependent variable (NP) of BOK and 98.12% of the dependent variable (NP) of EBL is explained by the variation in independent variables (NPA and LA).

To measure the significance of the relationship between NP, NPA and LA of the concerned banks, it would be more preferable to calculate the probable

error of correlation coefficient. The same table depicts that R of SCBNL is greater than 6 P.E (R = 0.9674 > 6 P.E. = 0.1159), R of BOK is higher than 6 P.E. (R = 0.9996 > 6 P.E. = 0.0014), and R of EBL is also higher than 6 P.E. (R = 0.9906 > 6 P.E. = 0.0340). So, it can be concluded that the relationship between NP, NPA and LA is statistically significant in all the three banks, SCBN, BOK and EBL.

4.1.10.2 Multiple Regression Equation of NP on NPA and LA

Let NP, NPA and LA be denoted by X_1, X_2 and X_3 respectively. Then the multiple regression equation of NP on NPA and LA is given by;

$$X_1 = a + b_1 X_2 + b_2 X_3$$

$$NP_{SCBNL} = 824.37 - 1.61\ NPA_{SCBNL} + 0.01\ LA_{SCBNL}$$

$$NP_{BOK} = -8.27 - 0.14\ NPA_{BOK} + 0.03\ LA_{BOK}$$

$$NP_{EBL} = -47.39 + 0.31\ NPA_{EBL} + 0.02\ LA_{EBL}$$

Table 4.14

Multiple Regression Line of NP on NPA and LA

Banks	No. of year	Constant (a)	Regression Coefficient (b)	
			b_1	b_2
SCBNL	5	824.37	-1.61	0.01
BOK	5	-8.27	-0.14	0.03
EBL	5	-47.39	0.31	0.02

(Source: Appendix - IV)

The above table 4.14 represents the linear relationship between NP, with NPA and LA of the concerned banks. The constant (a) is positive in SCBNL (824.37) and negative in BOK (-8.27) and EBL (-47.39). In case of SCBNL, the beta coefficient of NPA and LA are -1.61 and 0.01 respectively. It indicates that a one-rupee increase in NPA leads to Rs. 1.61 decrease in NP if LA remains constant and one rupee increase in LA leads to an average about Rs. 0.01 increase in NP if NPA remains constant.

On the other hand, in case of BOK, the regression coefficients of NPA and Loan and Advances (LA) are -0.14 and 0.03 respectively, which indicates that a one-rupee increase in NPA causes Rs. 0.14 decrease in NP if LA remains stable and one-rupee increase in LA leads to an average about Rs. 0.03 increase in NP if NPA remains uniform.

Similarly, per rupee increase in NPA of EBL leads to Rs. 0.31 increase in NP, if Loan and Advances (LA) remains constant, and per rupee increase in LA causes Rs. 0.02 increase in NP, if NPA remains constant. Hence, both NPA and loan and advances have positive relationship with Net profit in EBL.

4.1.11 Trend Analysis

The trend analysis aids to predict the future value on the basis of the past years. To know the components of non-performing assets and NPA as a whole of the sampled banks in future the trend analysis has been used.

4.1.11.1 Trend Analysis of Sub-Standard Loan (SSL)

Let Year (X) 1, 2, 3, 4 and 5 denotes fiscal year 2003/04, 2004/05, 2005/06, 2006/0 and 2007/08 respectively. Then regression line of Sub-standard Loan (Y) on year calculated in Appendix is presented in the table below;

Table 4.15

Trend Analysis of Sub-Standard Loan

Fiscal Year	SCBNL	BOK	EBL
2008/09	30.41	61.91	4.41
2009/10	35.99	55.27	3.44
Regression Line	SSL_{SCBNL} = -3.09 + 5.58 X		
	SSL_{BOK} = 101.75 – 6.64 X		
	SSL_{EBL} = 10.26 – 0.98 X		

(Source: Appendix - V)

The table 4.15 shows that the trend sub-standard loan of SCBNL follows increasing trend while that of BOK and EBL follows decreasing trend. The table depicts that the sub-standard loan in the fiscal year 2008/09 and 2009/10 will be Rs. 30.41 millions and Rs. 35.99 millions respectively in SCBNL, Rs. 61.91 millions and Rs. 55.27 millions respectively in BOK and Rs. 4.41 millions and Rs. 3.44 millions respectively in EBL. Likewise, the regression equation shows that in each year the sub-standard loan of SCBNL increases by Rs. 5.58 millions and that of BOK decreases by Rs. 6.64 millions and EBL decreases by Rs. 0.98 millions. Hence, the pace of decrement in sub-standard loan, component of NPA, is highest in BOK. But it should be considered that such decrement results in increasing performing loan not increasing doubtful loan and loss loan.

4.1.11.2 Trend Analysis of Doubtful Loan (DL)

The trend value of Doubtful Loan calculated in Appendix - V is presented in the following table.

Table 4.16

Trend Analysis of Doubtful Loan

Fiscal Year	SCBNL	BOK	EBL
2008/09	21.78	-0.94	-14.48
2009/10	1.35	-16.12	-22.39
Regression Line	$DL_{SCBNL} = 144.35 - 20.43\ X$		
	$DL_{BOK} = 90.13 - 15.18\ X$		
	$DL_{EBL} = 32.98 - 7.91\ X$		

(Source: Appendix -V)

The regression line shows that in each fiscal year, the doubtful loan decreases by Rs. 20.43 millions in SCBNL, by Rs. 15.18 millions in BOK and by Rs. 7.91 millions in EBL. Also, the table shows that the predicted doubtful loan in the fiscal year 2008/09 and 2009/10 will be Rs. 21.78 millions and Rs. 1.35 millions respectively in SCBNL and nil in BOK and EBL, since the value is in negative.

4.1.11.3 Trend Analysis of Loss Loan (LL)

The trend value of Loan Loss computed from the regression line is presented in the table below:

Table 4.17

Trend Analysis of LL

Fiscal Year	SCBNL	BOK	EBL
2008/09	64.97	100.10	139.58
2009/10	52.19	82.79	151.41
Regression Line	$LL_{SCBNL} = 141.65 - 12.78\ X$		
	$LL_{BOK} = 203.96 - 17.31\ X$		
	$LL_{EBL} = 68.57 + 11.84\ X$		

(Source: Appendix - V)

The table shows that the estimated loan loss that SCBNL will maintain in the fiscal year 2008/09 and 2009/10 will be Rs. 64.97 millions and Rs. 52.19 millions respectively and the estimated loan loss of BOK will be Rs. 100.10 millions and Rs. 82.79 millions in the fiscal year 2008/09 and 2009/10 respectively and that of EBL will be Rs. 139.58 millions and Rs. 151.41 millions respectively. The regression line also shows that the loan loss will decrease by Rs. 12.78 millions per year in SCBNL, and by Rs. 17.31 millions in BOK and increase by Rs. 11.84 millions per year in EBL. The decrease of loan loss in the future year indicates that SCBNL and BOK will give more emphasis on reducing the credit risk, whereas the increase of loan loss implies that EBL will fail to control the loss loan.

4.1.11.4 Trend Analysis of Non Performing Assets (NPA)

Let the dependent Variable, NPA be denoted by Y and the independent variable, Year be denoted by X. Then, the regression equation of NPA on Year is presented in the table below;

Table 4.18

Trend Analysis of Non Performing Assets

Fiscal Year	SCBNL	BOK	EBL
2008/09	117.16	161.07	129.50
2009/10	89.54	121.94	132.45
Regression Line	$NPA_{SCBNL} = 282.91 - 27.63\ X$		
	$NPA_{BOK} = 395.84 - 39.13\ X$		
	$NPA_{EBL} = 111.81 + 2.95\ X$		

(Source: Appendix- V)

The table shows that the estimated value of non performing assets will be Rs. 117.16 millions and Rs. 89.54 millions in SCBNL, Rs. 161.07 millions and Rs. 121.94 millions in BOK, and Rs. 129.50 millions and Rs. 132.45 millions in EBL in the fiscal year 2008/09 and 2009/10 respectively. Similarly, the regression line of non-performing assets on time period indicates that in each year, the non-performing assets decreases by Rs. 27.63 millions in SCBNL, if the other variable (282.91) remains constant and the non-performing assets decreases by 39.13 millions in BOK, if the other variable (395.84) remains stable, however, the non-performing loan increases by Rs. 2.95 millions in EBL. This indicates that SCBNL and BOK has good loan management policy than EBL. Although EBL was quite success in minimizing sub-standard and doubtful loan, but due to the increment in loss loan, the non-performing loan of EBL will increasing trend.

4.2 Primary Data Analysis

For the purpose of collecting primary data, a questionnaire having a set of 8 questions were prepared and presented to 40 respondents. The respondents were selected randomly from Shareholders, Borrowers and Employees. The questions 1 to 8 contained objective question. The targeted 40 respondents were composed by 10 shareholders, 15 borrowers and 15 employees. Out of 40 questions distributed, responses from only 32 personnel obtained, which represented 80% of the total populated questions. Among the 32 respondents, 9 were shareholders, 12 were borrowers and 11 were employee of SCBNL, BOK and EBL.

4.2.1 Loan Floatation Basis

To examine the most important basis that should be considered while disbursing loan, the respondents have been asked to express their view. The responses obtained from them have been presented in the table 4.19.

Table 4.19

Loan Floatation Basis

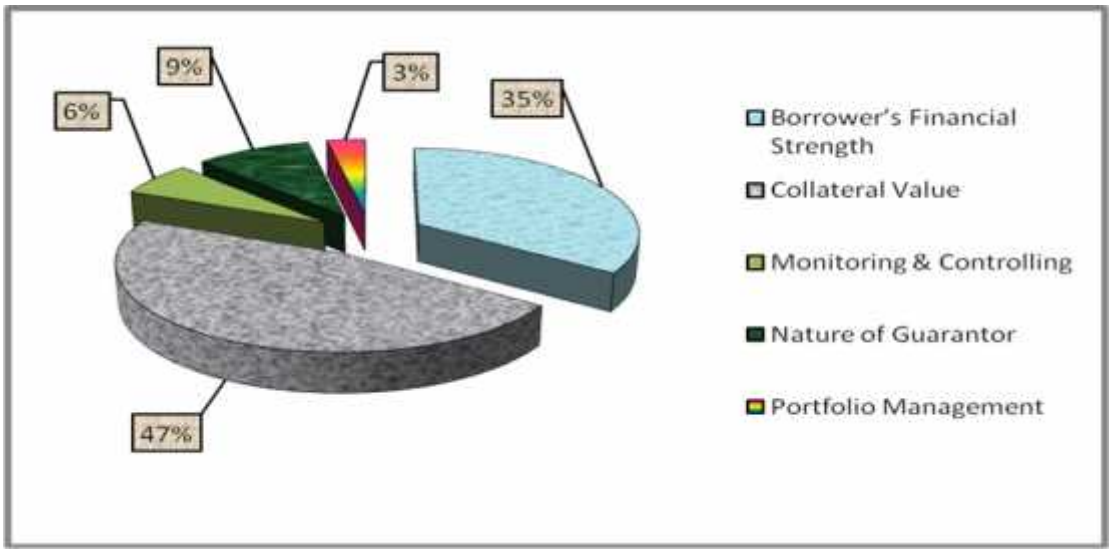
Basis	**Responses**			**Total**	
	Shareholder	**Borrower**	**Employee**	**Responses**	**%**
Borrower's Financial Strength	2	4	5	**11**	**35**
Collateral Value	4	6	5	**15**	**47**
Monitoring & Controlling	1	1	0	**2**	**6**
Nature of Guarantor	1	1	1	**3**	**9**
Portfolio Management	1	0	0	**1**	**3**
Total	**9**	**12**	**11**	**32**	**100**

(Source: Opinion Survey, 2009)

The Table 4.19 shows that the majority of the respondents have stated that the collateral value should be given more consideration while disbursing loan. Out of the 32 respondents, 15 respondents (47%), have supported this option. Besides collateral value, 35% of the respondents, 11 out of 32, have opined that evaluation borrower's financial strength should be the main basis while floating loan. Similarly, 9% of the respondents (3 out of 32), 6% of the respondents (2 out of 32) and 3% of the respondents (1 out of 32) have affirmed that nature of guarantor, monitoring and controlling and portfolio of loan management respectively should be the main basis for loan floatation.

Figure 4.7

Loan Floatation Basis



4.2.2 Internal Reasons for Turning Bad Loan

To know the internal reasons that turn out the good loan into bad loan, the respondents have been asked on this regard. The responses obtained from the respondents have been presented in Table 4.20.

Table 4.20

Internal Reasons for Turning Bad Loan

Reasons	Responses			Total	
	Shareholder	Borrower	Employee	Responses	%
Mismanagement	1	0	1	**2**	**6**
Borrower's Bad Intention	3	7	3	**13**	**41**
Lack of Portfolio Mgmt.	0	1	2	**3**	**9**
Shortfall on Security	3	1	2	**6**	**19**
Weak Legal Provision	0	0	2	**2**	**6**
Ineffective Credit Policy	2	3	1	**6**	**19**
Total	**9**	**12**	**11**	**32**	**100**

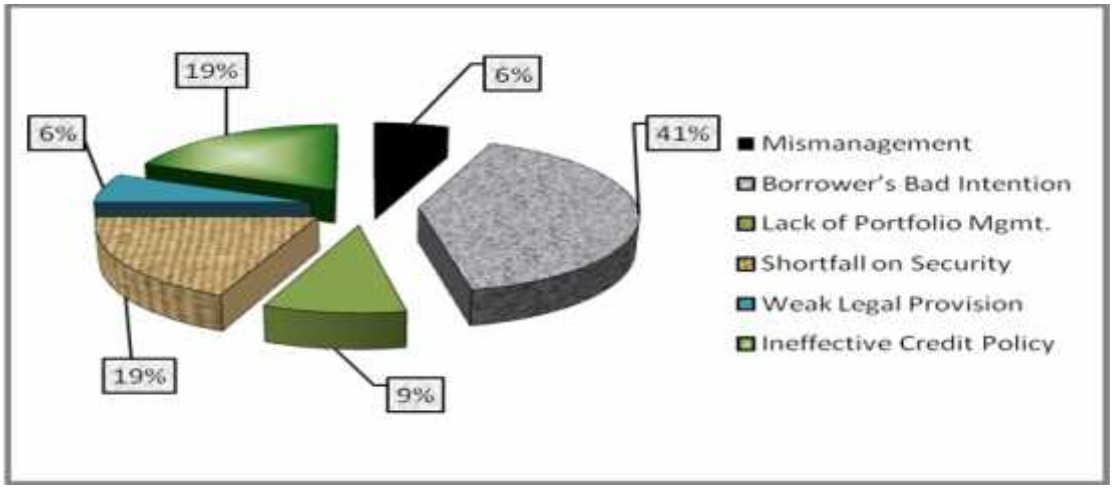
(Source: Opinion Survey, 2009)

The table 4.20 shows that the majority of the respondents, 13 out of 32 (41%) have strongly affirmed that the bad intention of borrower turns the loan into bad loan. Similarly, 6 respondents (19%) have said that overvaluation of security and ineffective credit policy of the bank each is equally responsible for turning loan into bad loan. However, 3 respondents (9%) have stated that lack of good portfolio loan management is responsible for bad loan, while 2 respondents each (6%) opined that mismanagement and weak legal provisions are responsible for formation of bad loan. Considering the majority of each

category, 3 out of 9 shareholders, 7 out of 12 borrowers, 3 out of 11 employees and the overall majority, 13 out of 32 respondents, it can be concluded that the borrower's bad intention is the major reason for turning bad loan.

Figure 4.8

Internal Reasons for Turning Bad Loan



4.2.3 External Reasons for Turning Bad Loan

Similarly, to know the external reason that provokes the loan to turn into bad loan, the respondents have been asked to express their view. The responses obtained from them have been presented in the Table 4.21.

Table 4.21

External Reasons for Turning Bad Loan

Reasons	Responses			Total	
	Shareholder	Borrower	Employee	Responses	%
Economic & Industrial Recession	3	5	3	**11**	**34**
Conservative Provision	0	1	0	**1**	**3**

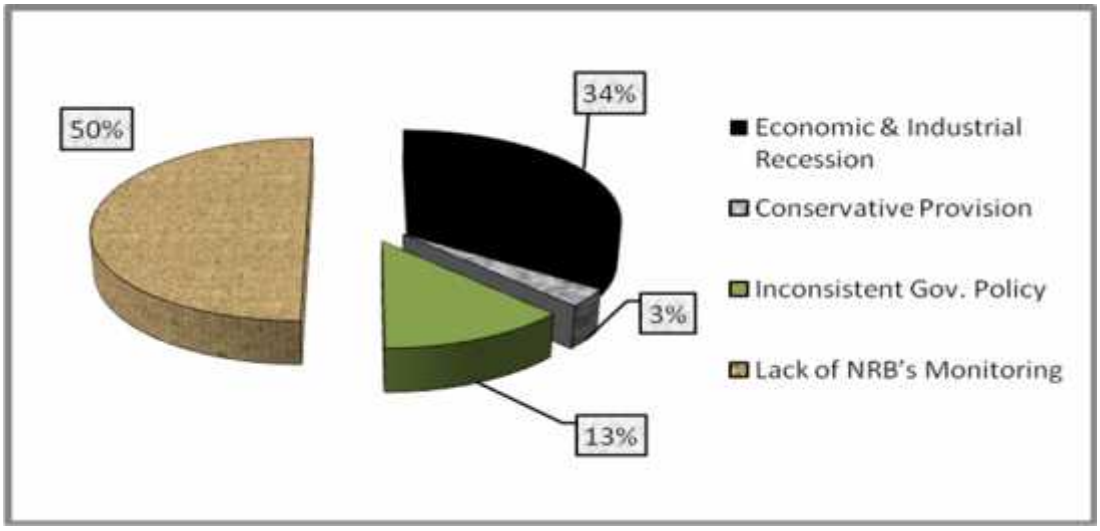
Inconsistent Gov. Policy	1	2	1	**4**	**13**
Lack of NRB's Monitoring	5	4	7	**16**	**50**
Total	**9**	**12**	**11**	**32**	**100**

(Source: Opinion Survey, 2009)

The table 4.21 shows that the majority of the respondents, 16 out of 32, half of the total respondents, have opined that the lack of NRB's monitoring and supervision is the main reason behind turning loan into bad loan. Likewise, 11 respondents, 34% of the total respondents, have said that recession in economy and industry causes loan to turn bad. However, 3% of the respondents, 1 out of 32 and 13% of the respondents, 4 out of 32, have stated that conservative provision for loan and inconsistent government policy are the main reasons for having bad loan. However, looking each category, the majority of the shareholders, 5 out of 9 and the majority of employee, 7 out of 11 have supported lack of NRB's proper monitoring and supervision are the main reason, while the majority of the borrower have stated that economic and industrial recession is the main reason for bad loan. Eventually on the basis of overall majority it can be considered that lack of NRB's proper monitoring and supervision is the main external reason that causes loan to turn bad.

Figure 4.9

External Reasons for Turning Bad Loan



4.2.4 Sector Covering More Default Loan

To control the process of turning good loan into bad, it is essential to know the major sector defaulting loan. Hence to examine the major sector that covers more default loan, the respondents are asked to express their opinions. The responses achieved from them have been presented in the Table 4.22.

Table 4.22

Sector Covering More Default Loan

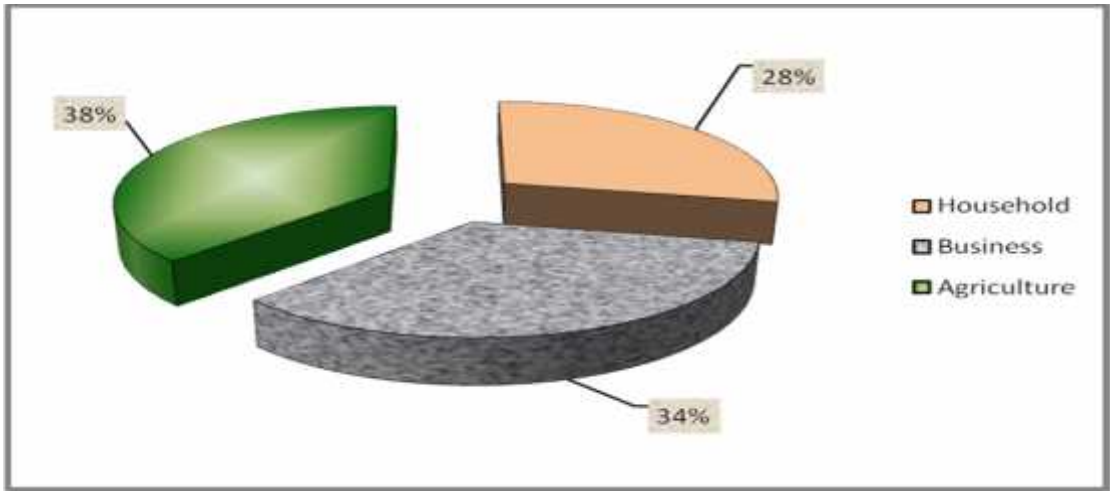
Sector	Responses			Total	
	Shareholder	Borrower	Employee	Responses	%
Household	2	4	3	**9**	**28**
Business	4	2	5	**11**	**34**
Agriculture	3	6	3	**12**	**38**
Total	**9**	**12**	**11**	**32**	**100**

(Source: Opinion Survey, 2009)

The table 4.22 depicts that the majority of the respondents, 12 out of 38, have pointed out that agricultural sector covers the more default loan. While, 34% of the respondents, 11 out of 32, have opined that business sector covers more default loan and 28% of the respondents, 9 out of 32, have stated that household covers more default loan. Similarly, looking each category the majority of the shareholders, 4 out of 9 and the majority of the employees, 5 out of 11, strongly support that business sector covers more default loan. However, the majority of the borrowers, 6 out of 11, have said that agriculture sector covers more default loan. Eventually, considering the overall majority, 38% of the respondents, it can be concluded that agriculture sector is more risky while recovering loan than household and business sector.

Figure 4.10

Sector Covering More Default Loan



4.2.5 Effect of NPA on Financial Health of Bank

To investigate whether Non-Performing Assets actually affects the financial health of bank or not, the respondents are asked to opine their feelings. The responses obtained through questionnaire are presented in the Table 4.23.

Table 4.23

Effect of NPA on Financial Health of Bank

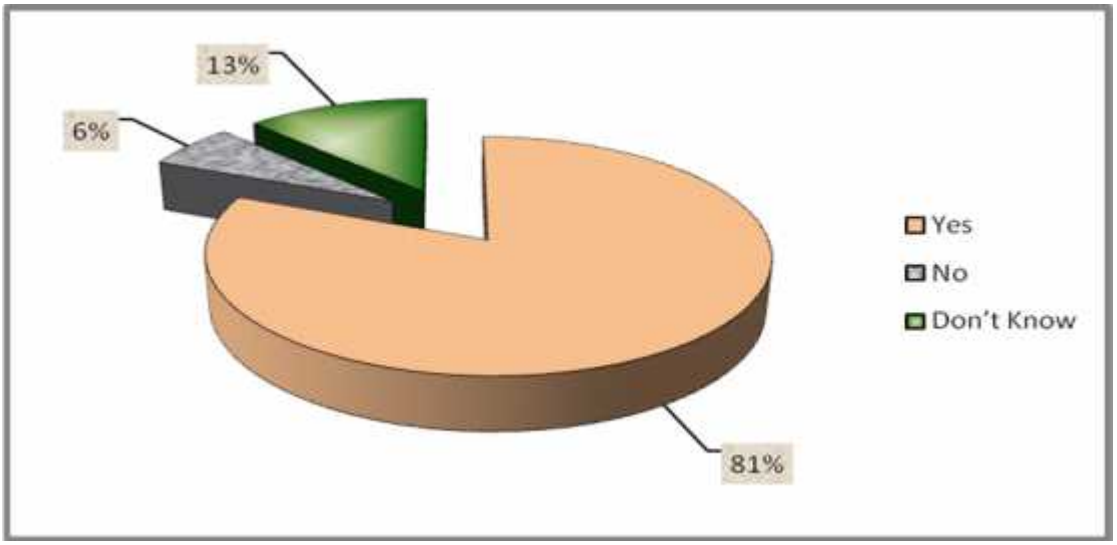
Effect	Responses			Total	
	Shareholder	**Borrower**	**Employee**	**Responses**	**%**
Yes	8	8	10	**26**	**81**
No	1	1	0	**2**	**6**
Don't Know	0	3	1	**4**	**13**
Total	**9**	**12**	**11**	**32**	**100**

(Source: Opinion Survey, 2009)

The table 4.23 delineates that the 81% of the respondents, 26 out of 32, are in the view that NPA has direct effect on the financial health of the bank, whereas only 6% of the respondents, 2 out of 32, are in the view that NPA has no effect in the financial health of the company, and 13% of the respondents, 4 out of 32, have remained neutral on this query. Also, the majority of each category, 8 out of 9 shareholders, 8 out of 12 borrowers and 10 out of 11 employees are in the view that NPA has direct impact on the financial performance of the company. So, embracing the majority of each category and the whole majority, it cannot be denies with the fact that NPA has direct influence on the financial health of the bank.

Figure 4.11

Effect of NPA on Financial Health of Bank



4.2.6 Degree of Effect of NPA on Banking Industry

To know the degree of effect that NPA has on banking industry, the respondents are asked to express their view. The responses obtained from them have been presented in the Table 4.24.

Table 4.24

Degree of Effect of NPA on Banking Industry

Degree	Responses			Total	
	Shareholder	Borrower	Employee	Responses	%
Not affected	0	0	0	**0**	**0**

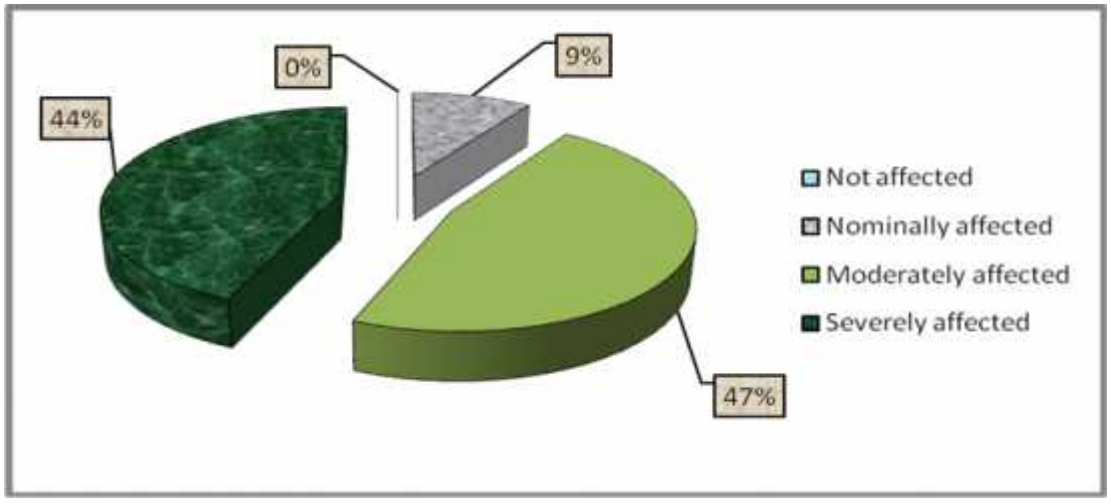
Nominally affected	0	1	2	**3**	**9**
Moderately affected	6	4	5	**15**	**47**
Severely affected	3	7	4	**14**	**44**
Total	**9**	**12**	**11**	**32**	**100**

(Source: Opinion Survey, 2009)

The table 4.24 demonstrates that 47% of the respondents, 15 out of 32, have stated that the banking industry has been moderately affected by the problem of NPA. Similarly, 44% of the respondents, 14 out of 32, have said that the problem of NPA has severe effect on the banking industry. Also, 9% of the respondents, 3 out of 32, have stated that the banking industry had been nominally affected by the problem of NPA. Looking each category, the majority of the shareholders, 6 out of 9 and the majority of the employees, 5 out of 11, have stated that banking industry has been moderately affected by NPA. However, the majority of the borrower, 7 out of 12, state that the banking industry has been severely affected by the problem of NPA. Finally, considering the overall majority, 15 out of 32, it can be concluded that NPA has moderate effect on banking industry.

Figure 4.12

Degree of Effect of NPA on Banking Industry



4.2.7 Best measures to resolve NPA Problem

To solve the NPA problem has become the greatest challenge of today's banking industry to reduce the credit risk. Hence, to know what measures can be taken for resolving the NPA problem, the respondents are asked on this regard. The solution achieved from them has been presented in the Table 4.25.

Table 4.25

Best measures to resolve NPA Problem

Degree	Responses			Total	
	Shareholder	Borrower	Employee	Responses	%
Strict Recovery Policy	4	6	3	**13**	**41**
New rules & regulations	0	1	2	**3**	**9**
Monitoring	2	3	4	**9**	**28**
Rebate for timely Payment	3	2	2	**7**	**22**
Total	**9**	**12**	**11**	**32**	**100**

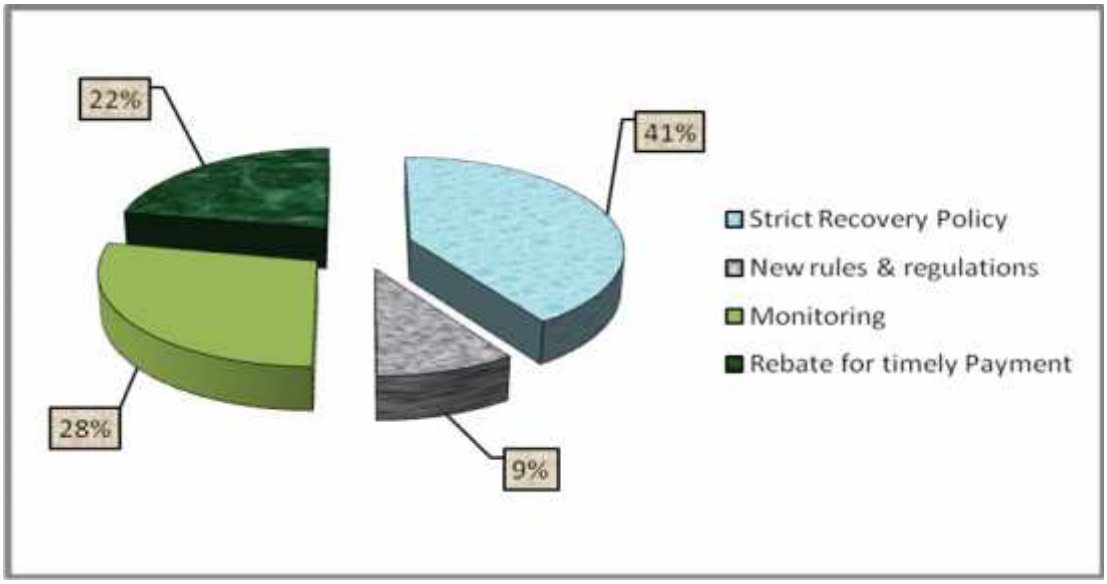
(Source: Opinion Survey, 2009)

The table 4.25 depicts that 41% of the respondents, 13 out of 32 sought that the adoption of strict recovery policy can only reduce the problem of NPA. Similarly, 28% of the respondents, 9 out of 32, 22% of the respondents, 7 out of 32, and 9% of the respondents, 3 out of 32, have opined that monitoring of borrower's activities, providing rebate for timely payment and introduction of new rules and regulations regarding NPA respectively can reduce the problem of NPA. Looking each category, the majority of shareholders, 4 out of 9, and the majority of borrowers, 6 out of 12, have suggested adoption of strict recovery policy, while the majority of the employees, 4 out of 11, have

suggested monitoring of borrower's activities can reduce the NPA problem. Finally, considering the majority of the respondents, 13 out of 32, it can be concluded that adoption of strict recovery policy is the best option for reducing NPA.

Figure 4.13

Best measures to resolve NPA Problem



4.2.8 Best Time to Follow up after Due date

To examine the best time within which the bank should follow up for recovery after due date, the respondents have been asked on this regard. The responses obtained from them have been presented in the Table 4.26.

Table 4.26

Best Time to Follow up after Due date

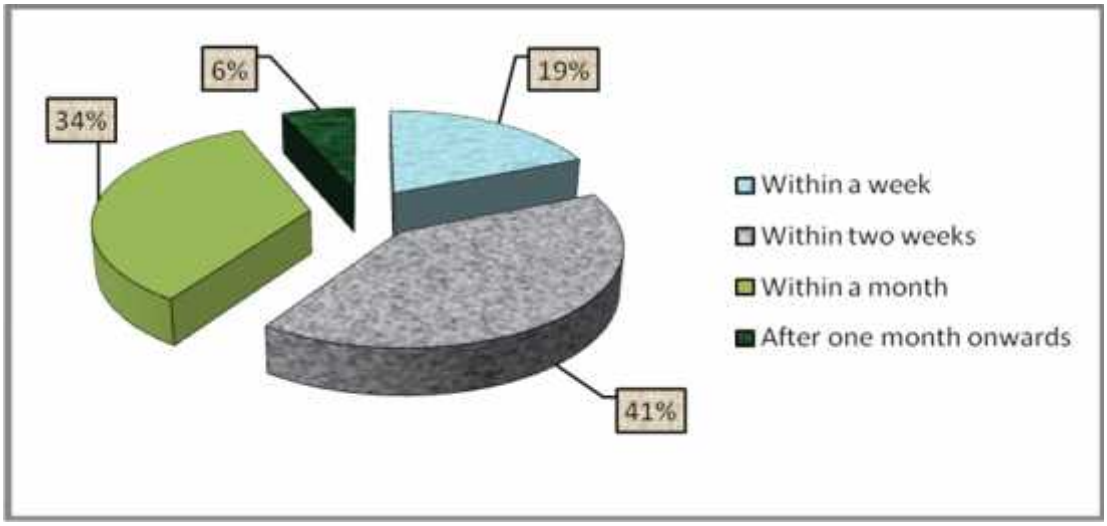
Degree	Responses			Total	
	Shareholder	Borrower	Employee	Responses	%
Within a week	2	1	3	**6**	**19**
Within two weeks	4	3	6	**13**	**41**
Within a month	3	6	2	**11**	**34**
After one month onwards	0	2	0	**2**	**6**
Total	**9**	**12**	**11**	**32**	**100**

(Source: Opinion Survey, 2009)

The table 4.26 demonstrates that 41% of the respondents, 13 out of 32, are in the view that banks should follow up for the recovery within two weeks after due date. Similarly, 34% of the respondents, 11 out of 32, have opined that within a month after due date will be the best time that the bank should start for recovery. Also, 19% of the respondents, 6 out of 32 and 6% of the respondents, 2 out of 32, opine that within a week and after one month onward respectively will be the best time for follow up. Looking each category, the majority of shareholders, 4 out of 9 and the majority of employees, 6 out of 11, have supported within two weeks, whereas the majority of borrowers, 6 out of 12, have supported within a month for follow up after due date. Eventually, considering the overall majority, it can be concluded that within two weeks after the matured date of loan will be the best time for bank to follow up for recovery process.

Figure 4.14

Best Time to Follow up after Due date



4.3 Major Findings

On the basis of both primary and secondary data analysis, the following major findings have been drawn up;

Findings from Secondary Data Analysis

- In average, the performing loan of SCBNL has covered 97.73% of the total loans and advances, whereas the non-performing loan has covered 2.27% of the total loans and advances. Similarly, in BOK the performing loan has occupied 96.25% and non-performing loan has covered 3.75% of the total loans and advances. And in EBL, the performing loan has represented 98.78% and non-performing loan has represented 1.22% of the total loan.
- The average sub-standard loan, doubtful loan and loss loan of SCBNL are Rs. 13.66 millions, Rs. 83.07 millions, and Rs. 103.31 millions respectively, BOK are Rs. 81.83 millions, Rs. 44.59 millions, and Rs. 152.03 millions respectively, while EBL are Rs. 7.34 millions, Rs. 9.25 millions and Rs. 104.07 millions respectively.

- In average, the non-performing asset has represented 2.33% in SCBNL , 3.93% in BOK and 1.24% in EBL of the total performing loan of the respective bank, which has indicated that BOK has more risky investment sector than SCBNL and EBL.
- Similarly, the non-performing assets covered 0.79% of the total assets of SCBNL, 2.40% of the total assets of BOK, and 0.80% of the total assets of EBL, thus implying more risky assets in BOK compared to SCBNL and EBL.
- Likewise, the non-performing asset to total deposit of SCBNL is 0.89% and that of BOK is 2.80%, and EBL is 0.93%, which has indicated better loan management in SCBNL than in BOK and EBL.
- In average, SCBNL has kept 2.98% of the total loans as loan loss provision and BOK has kept 3.71% of the total loans as loan loss provision and EBL has kept 3.19% as loan loss provision. Similarly, the loan loss provision represented 141.99% and 106.40% and 288.06% of non-performing assets in SCBNL, BOK and EBL respectively.
- Also, the net profit to non-performing assets of SCBNL is 354.74% in average and that of BOK is 87.39% in average and EBL is 213.52% in average for the five year periods taken for research.
- There exists negative correlation of -0.9768 between NPA and LA of SCBNL, -0.5847 correlation between NPA and LA of BOK and positive correlation of 0.3279 between NPA and LA of EBL. Similarly, the correlation coefficients between net profit and non-performing assets are -0.9646 in SCBNL,-0.6572 in BOK and 0.3498 in EBL.
- The multiple correlations between net profit, non performing assets and loan and advances are 0.9674 in SCBNL and 0.9996 in BOK, and 0.9906 in EBL. Similarly, the multiple regression equation of net profit on non performing assets and loan and advaces indicates that with per rupee increase in non-performing assets, the net profit of SCBNL

decreases by Rs. 1.61, BOK decreases by Rs. 0.14, and EBl increases by Rs. 0.31, if loan and advances of the corresponding banks remain constant. Also, with per rupee increase in loan and advances, the net profit of SCBNL increases by Rs. 0.01, BOK increases by Rs. 0.03, and EBL increases by Rs. 0.02, if the non-performing assets of the corresponding banks remain constant.

- The trend analysis showed that the sub-standard loan in the fiscal year 2008/09 will be Rs. 30.41 millions in SCBNL, Rs. 61.91 millions in BOK, and Rs. 4.41 millions and in the fiscal year 2009/10 will be Rs. 35.99 millions in SCBNL, Rs. 55.27 millions in BOK, and Rs. 3.44 millions in EBL. Similarly, the doubtful loan will be Rs. 21.78 millions in SCBNL and and nil in BOK and EBL in the fiscal year 2008/09 and will be Rs. 1.35 millions in SCBNL and and nil in BOK and EBL in the fiscal year 2009/10.
- Likewise, the loss loan of SCBNL in the fiscal year 2008/09 and 2009/10 will be Rs. 64.97 millions and Rs. 52.19 millions respectively. While the loss loan of BOK in the fiscal year 2008/09 and 2009/10 will be Rs. 100.10 millions and Rs. 82.79 millions respectively, and that of EBL will be Rs. 139.58 millions and Rs. 151.41 millions respectively. Also, the total non-performing loan of SCBNL in the fiscal year 2008/09 and 2009/10 will be Rs. 117.16 millions and Rs. 89.54 millions respectively, while that of BOK in the same period will be Rs. 161.07 millions and Rs. 121.94 millions respectively, and that of EBL will be Rs. 129.50 millions and Rs. 132.45 millions respectively.

Findings from Primary Data Analysis

- 47% of the respondents are in the view that the collateral evaluation should be the main basis to be considered while disbursing loan.
- Similarly, 41% of the respondents, 13 out of 32, have stated that bad intention of borrower is the main internal reason that provokes the loan to turn out into bad. Further, lack of NRB's proper monitoring and

supervision is the major external reason that turns loan into bad. About 50% of the respondents, 16 out of 32, chose this option.

- 38% of the respondents have said that agricultural is the major sector that covers more default loan. Similarly, 34% of the respondents and 28% of the respondents have claimed business and household respectively that covers default loan.
- About 81% of the respondents, 26 out of 32, have opined that NPA has effect on the financial health of the banks. Similarly, 47% of the respondents, 15 out of 32, have stated that the banking industry has been moderately affected by the problem of NPA.
- Finally, 41% of the respondents, 13 out of 32, have suggested adoption of strict recovery policy to reduce the problem of non-performing loan and the same percentage of the respondents suggested within two weeks after the due date will be the best time to follow up for loan recovery.

CHAPTER – V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

A strong banking sector is important for flourishing economy. The failure of the banking sector may have an adverse impact on other sectors. Non-performing assets are one of the major concerns for banks in Nepal. NPAs reflect the performance of banks. A high level of NPAs suggests high probability of a large number of credit defaults that affect the profitability and net-worth of banks and also erodes the value of the asset. The NPA growth involves the necessity of provisions, which reduces the over all profits and shareholders value.

The problem of NPAs not only affects the banks but also the whole economy. In fact high level of NPAs in Nepalese banks is nothing but a reflection of the state of health of the industry and trade. Non-performing assets/loan are those loans which do not repay principle and interest on time to the banks. According the NRB directive, sub-standard, doubtful and loss loans are the non-performing loan. Higher non-performing assets can be a cause to decrease profit of the commercial banks. As the provisioning required as NRB circular is very much stick, major chuck of operating profit has been allocated for maintaining loan loss provisioning.

The main objective behind making this study is to analyze the non-performing assets in commercial banks of Nepal, which elaborates whether CBS are efficient in managing credit and how NPAs play its role to the operations of the Banks. To achieve the objective both primary data and secondary data have been analyzed. Further, books, articles and past Master's research works are reviewed in this research. With regard to secondary data, three commercial banks, viz, SCBNL, BOK and EBL are taken as sample. The data collected from various sources are recorded systematically and presented in appropriate

forms of tables and charts and appropriate mathematical, statistical and graphical tools have been applied to analyze the collected data in a suitable manner. The data of five consecutive years of the two commercial banks have been analyzed to meet the objectives of the study.

5.2 Conclusion

On the basis of secondary data analysis, it can be concluded that EBL is slightly better than BOK and SCBNL, as the coverage of performing loan in total loans and advances of EBL is greatest in comparison to that of SCBNL and BOK. However, the non-performing loan aid to consider that there is highest credit risk in EBL in comparison with SCBNL and BOK, since the sub-standard loan of EBL was almost fifteen times lower than the loss loan, which verifies the inefficiency of EBL in converting the status of loss loan. While the loss loan of SCBNL is in decreasing trend and the sub-standard loan of BOK is only half of the loss loan approximately in average.

In contrast, the non-performing loan to performing loan clarifies that that the chances of turning total loans and advances in non-performing loan is lowest in EBL than in SCBNL and BOK, as the ratio of non-performing assets to performing loan of EBL is lowest than that of SCBNL and BOK. While on the basis of non-performing loan to total assets, SCBNL is best in comparison to that of BOK and EBL, since the average ratio of SCBNL is least than that of BOK and EBL. Also, SCBNL has good control over the non-performing assets than BOK and EBL, as the ratio gradually declined in each year. However, the declination in the ratio of BOK is also very praiseworthy.

Further, it can be concluded that the total deposit of SCBNL has been effectively utilized in higher secured sector than that of BOK and EBL, as the ratio of non-performing assets to total deposit of SCBNL is least in comparison to that of BOK and EBL. And, comparing the banks on the basis of loan loss provision to total loan disbursement, it can be concluded that SCBNL has

better coverage of pass loans and restructured loan on total loan. However, BOK has remained most success to make a wide reduction in the ratio. Likewise, EBL has remained most secured from non-performing assets in comparison to SCBNL and BOK, since the loan loss provision to non-performing assets of EBL is highest in comparison to that of SCBNL and BOK. Eventually, it can be concluded that there exists inverse relationship between non-performing assets and net profit in SCBNL and BOK. However, there is no such relationship between these two variables in EBL.

The statistical analysis aids to conclude that there exists negative relationship between non-performing assets and total loan, however, only the relationship of SCBNL is statistically significant. Further, there exists inverse relationship in SCBNL & BOK and positive relationship in EBL between net profit and non-performing loan. And, also this relation is statistically significant in SCBNL only. However, the joint effect of total loan and non-performing loan on net profit is statistically significant in all the three banks. Similarly, the trend analysis helps to conclude that in the forthcoming year, the sub-standard loan of SCBNL increases while that of BOK and EBL decreases, and doubtful loan decreases in all the banks. Likewise, loss loan and non-performing loan will decrease in SCBNL & BOK, and will increase in EBL.

5.3 Recommendations

On the basis of major findings drawn in the previous chapter and the conclusion made in this chapter, the following recommendations have been provided for the enhancement of credit situation of the banks;

- Although the coverage of NPA in total loan was lowest in EBL, EBL should make effort to convert the loss loan into performing laon.
- Compared to SCBNL, BOK and EBL have more risky assets. To reduce the risky assets and increase the profitability, it has become inherent for the banks to reduce NPA and invest in productive assets.

- BOK should contemplate in making loan loss provision, which is almost equal to non-performing assets and thus does not have adequate provision for performing loan.
- All three banks should quest for more productive and secured sector for investment so as to divert the total deposits and earn more profitability in order to sustain in the industry.
- Each bank should have its own independent credit rating agency which should evaluate the financial capacity of the borrower before than credit facility. The credit rating agency should regularly evaluate the financial condition of the clients.
- Special accounts should be made of the clients where monthly loan concentration reports should be made.
- It is also wise for the banks to carryout special investigative audit of all financial and business transactions and books of accounts of the borrower company when there is possibility of the diversion of the funds and mismanagement.
- The banks before providing the credit facilities to the borrower company should analyze the major heads of the income and expenditure based on the financial performance of the comparable companies in the industry to identify significant variances and seek explanation for the same from the company management. They should also analyze the current financial position of the major assets and liabilities.
- Banks should evaluate the SWOT analysis of the borrowing companies i.e. how they would face the environmental threats and opportunities with the use of their strength and weakness, and what will be their possible future growth in concerned to financial and operational performance.
- Independent settlement procedure should be more strict and faster and the decision made by the settlement committee should be binding both borrowers and lenders and any one of them failing to follow the decision of the settlement committee should be punished severely.

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