A COMPARATIVE STUDY ON NON-PERFORMING LOAN MANAGEMENT OF COMMERCIAL BANKS

(With Reference to EBL and NSBL)

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DECLARATION

I Hereby declare that this thesis work entitled **"A COMPARATIVE STUDY OF NON – PERFORMING LOAN MANAGEMENT OF COMMERCIAL BANK (With Reference to EBL and NSBL)"** submitted to Office of the Dean, Faculty Management, Tribhuvan University, is my original work done in the form if partial fulfillment of the requirement for the degree of Masters of Business Studies which is prepared under the supervision of respected supervisor **Mr. jeetendra aryal** of nuwakot adarsha campus..

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ABBREVIATIONS

ATM : Automatic Teller Machine

B.S : Bikram sambat

CBS : Commercial Banks

CEO : Chief Executives Officer

CIB : Credit Information Bureau

CRM : Credit Risk Management

CV : Coefficient of Variation

EBL : Everest Bank Limited

FY : Fiscal Year

i.e. : that is

JVB : Joint Venture Banks

Ktm. : Kathmandu

LLP : Loan Loss Provision

Ltd. : Limited

MBS : Masters' of Business Studies

NEPSE : Nepal Stock Exchange

NPA : Non-Performing Assets

NPL : Non-Performing Loan

NRB : Nepal Rastra Bank

NSBL : Nepal SBI Bank Limited

P.E. : Probable Error

SD : Standard Deviation

TU : Tribhuvan University

CHAPTER - ONE
INTRODUCTION

1.1 Background of the study

As in most of the countries, the banking system predominate the financial system of Nepal. Among these institutions, the banking sector's share in the total deposit and lending is not only significantly high but that the problems and the stake in this sector are also accordingly challenging. A big chunk of resources are being utilized on loan and advances. As the return from loan flotation is higher than the return from any other activity, commercial banks are concentrating their financial activities for the management of the loan and advances. By virtue of principal for higher return higher risk should be taken and vice versa. The mushrooming growth of the bank has leads them towards cutthroat competition. On the other hand economic condition of the country is not grooming rather remain stagnant.

Commercial bank are major financial institution, which occupy quite an important place in the framework in every economy because they provide capital for the development of industry. Commercial bank formulates sound investment policies to make it more effective, which eventually contribute to the economic growth of country. The bound policies help commercial bank maximizing quality and quantity of investment hereby achieve the own objective of profit maximization and social welfare. Formulation of sound investment policy and co-ordinate and planned efforts pushed forward the force of economic growth.

Non-Performing Loans (NPL) or Non-Performing Assets (NPAs) is a burning problem of Nepalese financial sector. In the present banking scenario, NPA is being more headaches for the banking sector. In the general context, a non performing asset is nothing but those

advances that do not generate income. In other words it refers to those unproductive assets of any firm that cannot be converted into cash within specific time limit. If the credit allowed by banks and financial institution turns bad, it creates NPA. NPA percentage in assets portfolio shows health of bank. The performance of any financial institution is greatly measure with the coverage of NPA in the particular institution. Since, the prime sources of income for the bank are generated through income from loan and advances, increase in non- performing assets may lead bank in verge of collapse (Nepal Rastra Bank, 2010).

As per the rules laid down by Nepal Rastra Bank, the loan and advance which are overdue for 3 month or more should be treated as NPA. Therefore, the significance of the study is for banking sector. Major impact of NPA lies in the fact it does not generate income. The credit remains idle. As overdue ageing more than three month, six month and one year requires 25%, 50% and 100% provision for income, which is virtually sure to reduce the profit. Furthermore, borrowing cost of resources locked in NPA and opportunity loss due in none recycling of funds are other impact. It also increases the administrative and recovery cost and legal cost as well. Effect on employee morale and decision making, lower image and rating of bank and reduce investor and foreign aid agency confidence are some of the prominent impact (Nepal Rastra Bank, 2010).

The negative level of capital fund, high level of NPA, poor risk management skill, government weaknesses and these several deficiencies have been found in the banking so with the view to addressing the huge problem and challenges of this sector, the strategies paper of the government in financial sector reforms has focused more on the banking sector as the overriding component of the overall financial sector reforms strategy in the Nepal. But it does not mean that other areas have been neglected. The other area such as insurance sector, securities market and corporate sector are also being strengthens side by side the government.

Beside risk underlying in the business other factors also effects in the increment of non-performing loan. These are attitude of the borrower, types and quality of collateral taken and legal complication created by the borrower during the loan recovery process. Reduction of NPA has always been a major problem for ever commercial bank in recent days. NPA management has been the top priority for banks. As easier, said than done, it's always been nerve-racking task for banks and whole banking industry now is struggling to get rid of it through various means.

Performing assets are those that repay principal and interest to the bank. These assets constitute the primary source of income to banks. Banks are willing to lend as much as possible. However, they have to careful about the safety of such loans. Loans are risky assets, even though bank lends most of its resources in loans.

"Loan and advances dominate the assets the assets side of the balance sheet of any bank. Similarly, earning from such loan and advances occupy a major space in income statement of the banks. However, it is very important to be remained that most of the bank failure in the world due to shrinkage on the value of the loan and advance. Here loan is known as risky assets. Risk of non-repayment of loan is known as credit risk or default risk. Performing loans have multiple benefits to the society while non- performing loan erodes even existing capital" (Pradhan; 1994:17).

The operating of the banking institutions has been governed by the government rules and regulation, international industry norms, relevant acts, Memorandum of Association(MOA),Article of Association(AOA), instruction given at the time of getting intent and Directives issued by Central bank from time to time. Similarly, the expectation of the stakeholder should also be taken into consideration. All banking institution is supposed to confine their activities within the stated framework.

1.1.1 Introduction of Selected Banks

Nepal SBI Bank Ltd.

Nepal SBI Bank is the first Indo-Nepal joint venture in the financial sector sponsored by three institutional promoters, namely State Bank of India (SBI), Employees Provident Fund (EPF) and Agricultural Development Bank Ltd (ADBL) through a Memorandum of Understanding signed on 17th July 1992.

NSBL was incorporated as a public limited company at the Office of the Company Registrar with an Authorized Capital of Rs. 12 Cores and was licensed by Nepal Rastra Bank on July 6, 1993. NSBL commenced operation with effect from July 7, 1993 with one full-fledged office at Durbar Marg, Kathmandu with 18 staff members.

The Authorized, Issued and Paid-Up Capitals have been increased to Rs. 300 Crores, Rs. 236.47 Crores and Rs. 235.57 Crores, respectively. In terms of the Technical Services Agreement concluded between SBI and the Bank, SBI provides management support to the bank through its 3 expatriate officers including Managing Director who is also the CEO of the Bank. ADBL divested its stake in the Bank by selling its entire 5% promoter shares to SBI on 14th June, 2009. Consequently, the Bank's corporate status has undergone change from its previous status as a Joint-venture Bank to a Foreign Subsidiary Bank of SBI. Presently fifty five percent of the total share capital of the Bank is held by the SBI, fifteen percent is held by the EPF and thirty percent is held by the general public.

Everest Bank Ltd.

Catering to more than 5.5 lacks customers, Everest Bank Limited (EBL) is a name you can depend on for professionalized & efficient banking services. Founded in 1994, the Bank has been one of the leading banks of the country and has been catering its services to various segments of the society. With clients from all walks of life, the Bank has helped develop the nation corporately, agriculturally & industrially *(www.nepalebl.com).*

Joint Venture Partner

Punjab National Bank (PNB), our joint venture partner (holding 20% equity) is the largest nationalized bank in India having presence virtually in all important centres. Owing to its performance during the year 2012-13, the Bank earned many laurels & accolades in recognition to its service & overall performance. Recently, PNB was awarded with "IDRBT Banking Technology Excellence Award" under Customer Management & Intelligence Initiatives. The Bank also bagged "Golden Peacock Business Excellence Award 2013" by Institute of Directors. Similarly, the Bank was recognized as 'Best Public Sector Bank' by CNBC TV 18. The bank has now more than 6,000 branches and 7000 ATMs spread all across the India. As a joint-venture partner, PNB has been providing top management support to EBL under Technical Service Agreement.

Networks

Everest Bank Limited (EBL) provides customer-friendly services through its wide Network connected through ABBS system, which enables customers for operational transactions from any branches. The bank has 50 Branches, 71 ATM Counters, 5 extension counter & 20 Revenue Collection across the country making it a very efficient and accessible bank for its customers, anytime, anywhere.

Awards

- The bank has been conferred with the "Best Managed Commercial Bank" by ASIAN PAINT NEWBIZ Award 2013
- The bank adjudged as "Number 1 Bank" under CAMELS (along with Customer Base & Branch Network) rating conducted by KAROBAR national daily (a leading business media house of Nepal)
- The bank was conferred with "Bank of the Year 2006, Nepal" by the Banker, a publication of financial times, London.

- The bank was bestowed with the "NICCI Excellence Award" by Nepal India chamber of commerce for its spectacular performance under finance sector.

Pioneering achievements

- EBL was one of the first banks to introduce Any Branch Banking System (ABBS) in Nepal.
- EBL introduced Mobile Vehicle Banking system to serve the segment deprived of proper banking facilities through its Birtamod Branch, which was the first of its kind.
- EBL introduced branchless banking system first time in Nepal to cover unbanked sector of Nepalese society through biometric machine.
- EBL is first bank that has launched e-ticketing system in Nepal where customers can buy yeti airlines ticket through internet.
- EBL introduced online payment of Mobile/PSTN/ADSL/NCELL bill or from the counter as well.
- EBL is the first bank to introduce agro-specialized branch "KRISHI UDHYAM BIKASH SAKHA" at Rajbiraj
- EBL introduced Cash Deposit Kiosk for the first time in Nepal through which the Customers can deposit Cash conveniently.

1.2 Focus of the Study

The main focus of this study will be to know about the non-performing loan and loan loss provision of selected Nepalese commercial banks and make comparison study of non-performing loan and loan loss provision of selected commercial banks. Credit policy of any commercial banks is major policy because it affects overall health of commercial banks. So commercial banks are aware about credit policy. They are cautious while issuing loan and advances. Nevertheless still banks have to face NPLs. Most commercial banks are facing those problem and they have increasing. This study

mainly focuses on non-performing loans or assets of Nepal SBI Bank Ltd. and Everest Bank Ltd.

1.3 Statement of the Problems

Commercial banks are indispensable institutions which act as intermediately between lender and borrower. These institutions are necessary to assist in economic growth and economic development. Any country in the world strives for economic growth and economic development because it is distinct mean for wholesome development of country. Aspiration of people for peace and prosperity is possible only if economic growth and economic development continues in wholesome manner in country.

Commercial banks collect money from depositors in small amount to huge amount these deposited money are disbursed to borrowers as loan advances. These loan and advances are capital for business enterprises. So repayment of loan and advances to banks as principle and interest depends upon the economic and financial health of these business enterprises. Besides the economic and financial health of these enterprises, the attitude of owner, legal practices of the land etc also effects in the repayment of loan and advances. The underlying collateral also effect in the repayment or compensation of loan and advances.

Financial institutions operating in Nepal have to undergo various kinds of problems. They have limited investment opportunities. The available opportunities are also competitive because of existence of many commercial banks. The credit extended by the commercial banks to agriculture and industrial sector is not satisfactory to meet the present growing need of the development of the country. Nepotism and political influence also effects the investment decision of the commercial banks. Granting loans against insufficient deposit, overvaluation of goods pledged, land building mortgaged, risk averting decision regarding loan recovery and negligence in

recovery of overdue loan is some of the basic loopholes and the unsound investment policy sighted in the banks. Therefore, investment of commercial bands is not that productive. This has caused various problems to commercial banks. Timely repayment of loan is always expected by commercial banks from borrowers but it is dwindling. As a result bad debt and not- performing assets are increasing which has invited the rise to NPA. This NPA has many implications in the banks. First, it directly affects profitability of commercial banks. On the other hand, they get loss in their investment. Specifically this study is connected to search answer of the following questions related to the selected Banks.

- What is the trend and actual level of NPL and LLP in NSBL and EBL?
- Is the NPL is affecting the financial performance in this sector?
- Is the regulation and policy framework of NRB is sufficient to control NPL level?
- What are the causes of the increment of NPL?
- What are the guidelines of provisions pertaining to loan classification and loan loss provision and are Nepalese Commercial Banks a practicing NRB's regulation/directives regarding loan loss provision for non-performing loan or not?
- What is the overall effect of NPL on the profitability of the selected Banks?

1.4 Objectives of Study

The major objective of this research is to examine the level of non-performing loan or assets (NPAs) and loan loss provision. The specific objectives are:

- To analyze the non-performing loan and loan loss provision of Nepal SBI Bank Ltd. and Everest Bank Ltd.
- To see the relationship between loan amount provided by commercial banks provided and loan loss provision in the commercial banks.
- To see the impact of non-performing assets in the profit of commercial banks.
- To see the trend line of the non-performing loan, loan and advances, loan loss provision of NSBL and EBL.

1.5 Significance of the Study

NPA is becoming prominent problem in commercial banks. Good investment policy of the bank has positive impact on economic development of the country and vice versa. But due to various reasons investment policy of commercial banks are not effective and productive. Non-productive loan increases non- performing assets and non-performing loans. This increases loan loss provision according to the directive of Nepal Rastra Bank, central bank. The portfolio of loan provision and loan loss provision affect its overall financial strength of the banks. This research is conducted to highlight present issues regarding non-performing and loan loss provision.

There are some researchers conducted on NPAs (i.e. NPL) concerning various commercial banks in Nepal. They have conducted research just to show the NPA position in various commercial banks. But this research will compare NPA status and its effects in various aspects of their major act ivies like loan lending, deposit collection etc. between private bank and government bank.

1.6 Limitation of the Study

The study is important document in context of NPL and loan loss provision problem in Nepalese financial sectors. Finding of the study might be very much useful for academicians as well as for practitioners. As every study it is also not free from some limitations. This also suffers from following limitations:

- This study is concerned with non-performing loans of two banks namely Nepal SBI Bank Ltd. and Everest Bank Ltd.
- The period of the study is limited from fiscal year 2008/09 to 2012/13.
- The study is basically based on secondary data, articles, publication and journals of the respective banks.

- The result of the study may not be thoroughly applied over all types of Commercial banks.

1.7 Organization of the Study

The Research work has been divided into five chapters. They are as follows:

Chapter - I: Introduction

The first chapter includes various aspects of this study like background of the study, focus on the study, statement of problem, objective of study , significance of study and limitation of the study.

Chapter - II: Review of Literature

The second chapter of the study constitutes review of literature. This chapter includes review of books, journal and other relevant Materials such as origin and concept of commercial banks, banking sectors in Nepal and also all relevant information and definition of NPAs

Chapter - III: Research Methodology

The third chapter includes research methodology, which consists of research design, sources of data, population and sample along with different statistical and financial tools used in this study.

Chapter - IV: Data Presentation and Analysis

The fourth chapter includes data and its presentation. These data are analyzed using financial as well as statistical tools to find out some conclusions.

Chapter - V: Summary, Conclusion and Recommendation

The last chapter is Fifth chapter it includes summary, conclusions and recommendations regarding the subject matter.

CHAPTER - II
REVIEW OF LITERATURE

In this chapter, the focus has been made on the review of literature relevant to the non-performing assets and its overall consequences in commercial banks each study is based upon historical data and knowledge, the past knowledge provides foundation to the present study. This chapter helps to take adequate feedback to broaden the information based and inputs to my study, therefore this chapter has its own importance in this study. This chapter is devoted into the conceptual framework, review journals and articles and review of thesis.

2.1 Conceptual Framework

Non-performing loans, also called non-performing Assets, are loans on which repayments or interest payments are not being made on time. A loan is an asset for a bank as the interest payments and the repayment of the principal creates a stream of cash flows. It is from the interest payments a bank makes its profits.

Banks usually treat assets as non-performing if they are not serviced for some time. If payments are late for a short time a loan is classified as past due. Once a payment becomes really late the loan classified as non-performing.

A high level of non-performing assets compared to similar lenders may be a sign of problems' may a sudden increase. However, this needs to be looked in the context of the type of lending being done. Some banks lend to higher risk customers than others and therefore tend to have a higher proportion of nonperforming debt, but will make up for this by charging borrowers higher interest rates, increasing spreads. A mortgage lender will almost certainly have lower non-performing assets than a credit card specialist, but the latter will have higher spreads and may well make a bigger profit on the same assets,

even if it eventually has to write off the non- performing loans. Non-Performing assets (NPAs) could weak bank's profitability both through a loss of interest income and write off the principle loan amount it tackles the subject of in entire starting from the stage of their identification till the recovery of due in such amount (Bindani; 2003:31).

To stand with performance in terms of profitability is a benchmark for any business enterprise including the banking industry. However, increasing NPA has a direct impact on banks profitability an legally bank are not allowed to book income on such accounts at the same time banks are forced to make provision on such assets (Timilsina,1997:46).

'Nepalese financial institutions have made significant progress during this decade, although they are still far behind the developed markets. In spite of having great risk management i. e. focused on collateral rather than on project, credit culture is a new aspect both to the investors and corporate. Unless we have a credit culture, they will end up nowhere. How to identify a good bank? Hugh deposits, high technology, strong marketing, broad branching network etc? Finally we arrive the point collection of the loans; on the whole, private sector banks have lower non-performing assets NPAs) than their public sector counter parts. NPAs are the loans that cannot be or are not been recovered. The government owned banks suffer actually from this, as they have to lend to various priority sectors, at the whims of their political masters and then forget everything about the money forever (Baidya;1999:76).

A bank is judged on the basis of capital, Assets Quality, Management, Easing, Liquidity and sensitivity to market risk (CAMELS). Almost all the government Banks are running at loss. Though almost all the private sectors banks are showing profit, it is very difficult to call them sound if appraised from CAMELS approach. Some banks have very low capital adequacy ratio (CAR) while some bank have piled up Non-Performing

Assets (NPAs). Similarly, banks do not have proper system in place for management of market risks. The people have been raising questions over the correctness of credit classification and provisioning of some banks should the suspicion come true, it will prove very costly to the depositors, creditors and national economy as whole. It would be prudent to advice NRB to strictly implement it's recently introduction directive so that other banks avert the fate of NBL, RBB and NIDC (Kerlinnger and Wilnston; 1986:24).

The item 'advance and loan' comes next in the order of liquidity. For all practical purposes, we may say that they are not shift able. Of course, this is the most profitable asset and the profit is mainly derived from these assets. As a rule, a commercial banker will generally lead only for short-term commercial purposes. It is not his duty to provide long-term loans for investment purposes. Such loans are provides by specialized agencies like industrial banks. The reason advanced in support of this view is that in the case long-term loan the banker will find it difficult to realize them when emerges arise. For instance, in the case of a mortgage, the mortgaged properly may cover the loan with a safe margin. But when the bank needs liquid cash most, it may find it difficult to convert the mortgaged property into liquid cash. Here in lays the meaning of the off quoted statement. 'The art of banking' lies in knowing the differences between a mortgage and bill of exchange (Wolf and Pant; 2002:25).

The timing of loan repayment is a basic term of bank's lending policy. Loan repayment is generally agreed upon prior to the extension of the loan and should represent a realistic evaluation of the customer's ability to repay. The objective is to secure repayment through liquidation of the transaction being financed by rather than through forced sale of the pledged security. Therefore, term and condition of loan repayment is highly influenced by the nature of transaction type of the loan and the period of loan (Baidhya; 1999:13).

Performing assets are those assets loans that repay principal and interest to the bank from the cash flow it generates. Loans and risky assets though a bank invests most of its resources in granting loans and advances. If an individual bank has around 10% non- performing assets/loan (NPAs), it sounds the death knell of that bank ceteris paribus. The objective of sound loan policy is to maintain the financial health of the banks, which results in safety of depositors' money and increase in the returns to the shareholders. Since the loan is risky asset, there is inherent risk in every loan. However, the bank should not take risk above a certain degree irrespective of returns prospect (Panday, 2000:36).

Loan review is not a luxury, but a necessity for a sound bank lending program. It not only helps management spot loan-problem more quickly, but also acts as a continuing check on whether loan officers are adhering to the bank's loan policy. For this reason, and to promote objectivity in the loan review process, many of the largest banks separate their loan review personal from the loan department and the bank's board of directors in assessing the bank's overall exposure to risk and its possible need for more capital in the future. Separate loan review division also helps to detect any mishaps and undue influences in the lending process, if any (Singh, 1999:214).

2.1.1 Loan and Advances

The major function of commercial banks is to collect deposits or funds and disburse it to investors as loan and advances. This loan and advances are main sources of income. Loan and advances dominate the assets side of balance sheet of any bank. Same way earning from loans and advances occupy a major portion of the income statement of the banks. This asset generates income to the bank. So it also determines profitability of banks. Loan and advances granted to customers earns interest. This interest is major source of income of banks. Loan is granted as overdraft cash credits and direct loans. Banks grant loan on the base of collateral

underlying the loan. Banks make careful assessment before granting loans to investors or business enterprises.

2.1.2 Performing Assets/Loans

Performing loans are those loans, which repay principle and interest timely to the bank from the cash flow it generates. In other word, performing loan are the productive assets that generate some profits. Loans have the certain period to return its principle with its interest. If anyone repays loan with its interest on time is known as the performing loan. It is the most profitable assets of bank. Its help in rapid growth of banking sector in this fast pace competitive age. Better performing loan are the symbol of success of bank. It ultimately helps in economic growth and development. So such loans are necessary for overall development and prosperity of country. However, many banks are suffering from the non-repayment of loan amount.

2.1.3 Non-Performing Assets/Loans (NPAs/NPL)

NPAs are defined as bad debt. However, NPA in terms of banking sector consist of those loans and advances, which are not performing well and likely to turn as bad loans. One of the most emerging problems of the commercial banks is to the management of non-performing assets/loans. So banks have to consider and cautious about such loan. While granting loan cautious, careful and through assessment, the project or investor or business enterprises should be made.

"NPA can be defined as the non-productive assets of the banks. In other words, it is the loan or bad debt and doubtful debts that does not repay timely. Generally the loan which does not repay within three months is known as non-performing loan. The loan amount that does not covered by collateral after selling is known as non-banking assets (NBA), Non-performing assets also includes the suspend interest. It is the interest, which becomes receivable. Unutilized assets and those investments which do not 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 sets"(Regmi; 2062 B.S. 85:75). “Meaning of NPAs is different in different country. In some countries, it means that the loan is impaired. In some countries, it means that the payment are due but there are significant different among countries how many days a payment should be in arrears before past due status is triggered” (Shrestha; 2004:14). According to current banking act, the banks have to make provision for bad and doubtful debts. After deducting the bad and doubtful debts from the non-performing assets, net non-performing an can be achieved. According to the NRB, central banks NPAs are classified loans and advances according to their nature of overdue timing. NRB has directed to maintain loan loss provision according to aging basis for risk mitigation. The loan provision is to LT be maintained by debiting profit account. Thus as the quality of loan degrades the ratio of loan loss provision is increased affecting the profitability of the banks.

2.1.4 Cause of Occurring NPAs

There are various causes to increase the NPAs. NPAs can be increased due to:

- Wrong choose to project and business to lend the fund
- Lack of transparent and clear lending policy
- Lack of effective and scientific forecast in the actual outcomes of business.
- Lack strong willingness in managerial level of banks.
- Lack of proper legal framework.

2.1.5 Effect of NPAs

Its direct effect is on the profitability of commercial banks. In future, it affects overall performance of banks. It also affects liquidity ad competitive functioning of public and private sector banks and finally the psychology of the bankers in respect to their disposition towards credit delivery and credit expansion.

“Increasing Non-Performing Assets has the direct effects to banks, investors and customers. It has negative impact to the economic health and business of country. It has two types of effects”, (Batra and Dass; 2003:76). Internal Effects Profitability is major objective of any business enterprises and commercial banks are not exceptional. But commercial banks cannot mobilize the non-performing assets to increase profitability. They also have to make provision for doubtful debts from their profits and other resources. That's why the profit of banks decreased and may occur losses. As a result, share capital also becomes capital erosion and capital inadequacy. The central bank can take action on those banks, which have low capital or capital adequacy ratio. When the non-performing assets increase, the banks have to increase the amount of provision for doubtful debts and when the loan is repaid, the profit treated as profit. If the provision for doubtful debts crosses 5% of the total loan amount, the bank have to pay income tax as profit. So, it has direct effects to the cash flow of banks'. As a result, the employment of human resources and profit of the bank has also affected.

A) External Effects

The banks accept deposits from the public and provide loan to the operation of business and other purposes. When the loan does not return with interest, it becomes non-performing assets and banks will not be able to return the deposited amount to their customers. If the banks unable to return the deposited amount the banks are loosed public supports and faiths. Not only that much but also. The banks have to take loan at a higher rate to pay deposit, which directly affects the profitability of banks and which leads the bank bankruptcy and dissolve. It also affects the monetary system and economy of the country.

B) Impact on Profitability

The NPAs has negative impacts on the profitability of the bank. Non-performing assets are the idle assets of the banks, which do not generate any return for the banks. Thus, we can say that the NPAs reduce the profitability of the banks due to the becoming the idle

resources. Not only has it reduced the profitability of the banks bur also it may causes for losing the customer's faiths and supports.

C) Impact on the Outlook of Banker Towards Credit Delivery

The psychology of the banks today is to insulate them with zero percent risk and turn lukewarm to fresh credit. This has affected adversely credit growth compared to growth of deposits, resulting a low C/D ratio around 50% to 54% for the industry. It is evident that the existence of collateral security at best may convert the credit extended to productive sectors into an investment against real estate, but will not prevent the account turning into NPA. Further blocked assets and real estate represent the most illiquid security and NPA in such advances has the tendency to persist for a long duration. Nationalized banks have reached a dead-end of the tunnel and their future prosperity depends on an urgent solution of this hovering threat.

D) Excessive Focus on Credit Risk Management

The most important business implication of the NPAs is that it leads to the credit risk management assuming priority over other aspects of bank's functioning. The bank's whole machinery would thus be pre-occupied with recovery procedures rather than concentrating on expanding business. A bank with high level of NPAs would be forced to incur carrying costs on a non-income yielding assets. Other consequence would be reduction in interest income, high level of provisioning, stress on profitability and capital adequacy, gradual decline in ability to meet steady increase in cost, increased pressure on net interest margin (NIM) thereby reducing competitiveness, steady erosion of capital resources and increased difficulty in augmenting capital resources. The lesser-appreciated implications are reputation risks arising out of greater disclosures on quantum and movement of NPAs, provisions etc. the non-quantifiable implications can be psychological like 'play safe' attitude and risk aversion, lower morale and disinclination to take decisions at all levels of staff in the banks.

Two decades of regimented and directed banking to credit delivery has deprived bank managers of the instinct skill and knowledge. Nationalized banking did not produce a spring of talent resources. Directive inputs and course direction came externally from NRB and Finance Ministry, which were external to the day-to day affairs and problems of the Nepalese banking industry. The system did not promote initiative and talent, but bred corruption and nepotism. This is the sense of Nepalese Banking struggling hard to transaction from old primitive systems and values to modern professional business ethics and corporate good governance.

E) High Cost of Fund Due to NPAs

Quite often genuine borrowers face the difficulties in raising funds from banks due to mounting NPAs.' Either the bank is reluctant in providing the requisites funds to the genuine borrowers or if the funds are provided, come at a very high cost to compensate the lender's losses caused due to high level of NPAs. Therefore, quite often corporate prefer to raise funds through commercial papers(CPS) where the interest rate on working capital charged by banks in higher. There are other various pressing factors that are relevant from the point of view Nepalese banking operations with a view to focusing on NPAs and its related effects:

F) Excess Liquidity Lending Default

The banks in Nepal are faced with the problem of increasing liquidity in the System 'Further, the Rastriya Banijya Bank (RBB) is increasing liquidity in the system through various rate cuts. Banks can get rid of its excess liquidity by increasing its lending but, often shy away from such an option due to the high risk of default In order to promote certain norms for healthy banking practices, most of the developed economies require all banks to maintain minimum liquid and cash reserves broadly classified into cash Reserve Ratio (CRR) and the Statutory Liquidity Ratio (SLR). A rate cut (for instance, decrease in RR) result into lesser funds to be locked up in NRB's vaults and further infuses greater funds into a system. However almost all the banks are facing

the problem of bad loans, nonperforming? Assets, thinning margins, etc, as result of which, banks are little reluctant in granting loans to corporate. As such, though in its monetary policy NRB announces the bankers no longer warmly greet rate cut but such news.

2.1.6 Loan Loss Provision

Risk exists if there are two or more than two outcomes. There is risk in every loan. Loan loss provision is the accumulated fund that is divided as safeguard to cover possible losses. It means that it is accumulated provisioning fund, which is used as safety fund to cover future losses. It is the expected provision fund. The amount of required for provisioning depends upon the level of NPAs, trends of repayment of loan and economic stage of country. The high quality loan requires low loss provision, whereas bad loan requires high loan loss provision. Loan loss provision made for performing loan is called "general loan loss provision" and loan loss provision made for non-performing loan is called specific loan loss provisioning".

2.1.7 Principles of Lending Loan and Advances

The precautions to be taken by a banker, and the principles to be taken care of, While granting advances. By way of introduction, an attempt is being made in the following paragraphs to discuss the general principle to be in mind by a banker while grating advances (Shekher and Shekher; 1999:551).

A) Liquidity

The term 'liquidity' implies the ability to produce cash on demand. A bank mainly utilizes its deposits for the purpose of granting advances. These deposits are repayable on demand or on the expiry of a specified period. In either case, the banker must be

ready to meet these liabilities whenever necessary. The advances granted by the banker are as liquid as possible.

B) Profitability

Banks are essentially commercial ventures. It is true that excessive and unjustifiable profits can only be at the cost of the customers, in so far higher lending rates push up production costs, and in the ultimate analysis, adversely affects society in general. At the same time, the facts remain that while strong operation profits allow for full prudential provisioning high net profits allow for allocation to capital and reserves, which is essential for any bank to maintain its competitive viability and expand its lending operations. Also, the shareholders of banks are entitled to reasonable dividend. All this indicates that it is that their lending operations are sufficiently profitable.

C) Safety and Security

The banker should ensure that the borrower has the ability and will to repay Advances as per agreement. The banker should carefully consider the margin of Safety. If it is as unsecured advance, it repayment depends on the creditworthiness of the borrower, and that of guarantor. The banker should consider the Charter, Capacity and Capital or reliability, Responsibility and resources of the borrower and the guarantor.

D) Purposes

The banker has to carefully examine applied. Of course the exact purpose the purpose for which the advance has been for which the advance is actually utilized. There is always the possibility that the advances, once granted, may be diverted for purpose so that indicated by the borrower at the time application. Thus there should be proper analysis of purpose.

E) Social Responsibility

While admitting that banker are essentially commercial venture, a bank should not forget the fact that it is not enough that only people of means are given banks finance. The identification of property sectors for the purpose of extending bank credit should be considered as a positive development in the banking system, aimed at effectively discharging its responsibility towards society. At the same time, this social responsibility should not deter the banks from paying adequate attention to the qualitative aspects of lending. Social responsibility is, no doubt ,highly exacting.

2.2 Review of NRB Directives

NRB issues various directives relating banking regulations and prudential norms. Among various directives issued in Unified Directives 2066 (Amended each year) B.S. directive No.2 is relating to loan Classification and provisioning.

Directive No. 2: Loan Classification and Provisioning

Nepal Rastra Bank act, 2058 B. S., granted the central bank full independence in the pursuit of its mandate .It is the duty if independent central bank to be transparent and to communicate. Nepal Rastra Bank's act 2058 B.S. mentioned its role at preamble" whereas, it is expedient to established a Nepal Rastra Bank to function as the central bank to formulate necessary monetary and foreign exchange policies, to maintain the stability of price, to consolidate balance of payment for sustainable development of the economy of the kingdom of Nepal, and to develop a secure, healthy and efficient system of payment, to appropriately regulate, inspect and supervise I order to maintain the stability and healthy development of banking and financial system, and for the enhancement of public credibility towards the entire banking and financial system of country."To fulfill the theme that mentioned on its preamble of act, 2058 B.S. the act 2058 B.S. Chapter 2 sections 4 defined the objectives of Nepal Rastra Banks. Objectives (d) and (e) are related to manage bank and financial system, which are as follows:

- To regulate, inspect, supervise and monitor the banking system

- To promote the entire banking and financial system of the kingdom of Nepal and to enhance its public credibility.

To fulfill objectives as a central bank Nepal Rastra bank issue various directives. Banking business is changing day by day not only from the external element but Also within the banks. It is also observed from different element of the society that banking in Nepal is not being operated in such a manner to deserve sufficient public confidence. It is also not operated with due consideration of its long term financial health. This environment in banking business is not only the challenge to the individual bank but also became big challenge to banking and financial as whole and more to the central bank of the country. In order to safe guard from future damage on the banking sector and to have health competition with the banking sector, new directives on code of ethics may help a lot this banking industry.

Directives related to loan classification and provisioning (Unified Directives No.2) effective from FY 2066/67 B.S., banks shall classify outstanding loan and advance on the basis of aging of principal amount into the following 4 categories.

1) Pass

Loans and advances whose principal amount is not past due for period up to three months shall be included in this category. These are classified and defined as performing loans.

2) Sub-Standard

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

3) Doubtful

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

4) Loss

All loans and advances, which are past due for one year or 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 I future shall be included in this category. Loans and advances failing in the category of sub-standard, Doubtful, and loss are classified and defined as Non-performing Loan.

Directive No. 2(a): Additional Arrangement in Respect of "Pass" Loan

Loan and Advances fully secured by bullions, fixed deposit receipts and Government of Nepal securities shall be included under "Pass" category. However, where collateral of fixed deposit receipt or Government of Nepal Securities or NRB Bonds is placed as security against loan for other purposes, such a loan has to be classified on the basis of ageing loan against FDRs of other banks shall also qualify for inclusion under Pass Loan.

The respective overdue period of pass, sub-standard and doubtful loans will be considered for higher classification from the next day of date of expiry of the overdue period provided for each class.

Directive No. 2. (b): Additional Arrangement in Respect of "Loss" Loan

Even if the loan is not past due, loans having any or all of the following discrepancies shall be classified as "loss".

a. No security at all or security that is not in accordance with the borrower's agreement with the bank.
b. The borrower has been declared bankrupt.
c. The borrower is absconding or cannot be found
d. Purchased or discounted bills are not realized within 90 days from the due date.
e. The credit has not 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 there convey process is under litigation.
g. Loans provided to the borrowers included in the blacklist and where the credit information bureau blacklists the borrower.

Note

Bills purchased/ discounted are to be classified in to loss loan where they are not realized within 90 days from due date. This is departure from the normal Classification rules applicable to other loans. Accordingly, it bills would have only two classification viz. Pass and Loss.

Directive No. 2 (c): Additional Agreement in Respect of "Term" Loan

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

Loan Loss Provision

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

Table: 2.1

Loan Loss Provision

S.N	Classification of loan	Period beyond Prescribed Limit	Loan loss provision
1	pass	Not matured or crossed only 3 month after maturity	1%
2	Sub-standard	Crossed 3-6 months after maturity	25%
3	Doubtful	Crossed 6-12 months after maturity	505
4	Loss	Crossed 1 year maturity	100%

Source: NRB Directives no.2

Loan Loss provision set aside for Performing Loan is defined as "General Loan Loss Provision" and Loan loss provision set aside for non performing loan is defined as" specific Loan Loss Provision".

Where the banks provide for loan loss provisioning in excess of the proportional required under the directives of NRB, the whole amount of such additional provisioning may be included in General Loan Provision under the supplementary capital.

Directive No. 2 (d): Additional Provisioning in the case of Personal Guarantee Loan

Where the loan is extended only against personal guarantee a statement of the assets, equivalent to the personal guarantee a mount not claimable by any other shall be obtained. Such loans shall be classified as per above and where the loans fall under the category of pass, sub-standard and doubtful, in additional to the normal loan loss provision applicable for the category, an additional provision by 20% point shall be provided. Classification of such loan advances shall be prepared separately. Hence, the loan loss provision required against the personal guarantee loan will be 21%, 45 and 70%, for pass, substandard and doubtful category respectively.

Directive No. 2 (e): Rescheduling and Restructuring of Loan

In respect of loans and advances failing under the category of substandard, Doubtful or loss, banks may reschedule or restructure such loans only upon receipt of a written plan of faction from the borrower citing the following reason:

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

Directive No. 2 (f): Loan Loss Provisioning in Respect of Rescheduled, Restructured or Swapped Loan

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

Directive No. 2 (g): Provisioning Against Priority Sector Credit

Full provisioning a per normal loan loss provisioning shall be made against the Uninsured priority and deprived sector loan However in respect of insured loans requisite provisioning shall be 25% of the percentage normal loan loss provisioning. The required provisioning in the case of insured priority/ deprived sector credit is as follows

Table: 2.2

Provisioning Against Priority Sector Credit

Pass	0.25
Sub standard	5%
Doubtful	12.5%
Loss	25%

Source: NRB Directive No. 2

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

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 RBI. An amount due under any credit facility is treated as "past due" when it has not been paid within 30 days from the due date. Due to the improvement in the payment and settlement systems, recovery climate, up gradation of technology in the banking system, etc., it was decided to dispense with 'past due' concept, with effect from March 31, 2004. Accordingly, as from that date, a Non performing asset (NPA) would be an advance where:

a. Interest and/ or installment of principal remain overdue for a period of more than 180 days in respect of a Term Loan.
b. The account remains 'out of order' for a period of more than 180 days, in respect of an overdraft cash Credit (OD/CC).

c. The bill remains overdue for a period of more than 180 days in the case of bills purchased and discounted.
d. Interest and/ or installment of principal remains overdue for two harvest seasons but for a period not exceeding two half years in the case of an advance granted for agricultural purpose ,and
e. Any amount to be received remains overdue for a period of more than 180 days in respect of other accounts.

With a view to moving towards international best practice and to ensure greater transparency, it has been decided to adopt the '90 days overdue' norm for identification of NPAs, form the year ending March 31,2004. Accordingly, with effect from March 31, 2004, a non-performing asset (NPA) shall be a loan or an advance where:

a. Interest and /or installment of principal remain overdue for a period of more than 90 days in respect of a Term Loan,
b. The account remains 'out of order' for a period of more than 90 days, in respect of an overdraft cash Credit (OD/CC),
c. The bill remains overdue for a period of more than 90 days in the case of bills purchased and discounted,
d. Interest and/ or installment of principal remains overdue for two harvest seasons but for a period not exceeding two half years in the case of an advance granted for agricultural purpose, and
e. Any amount to be received remains overdue for a period of more than 90 days in respect of other accounts.

2.3 Review of Journals and Articles

Chhetri, (2007), in his article "Non-performing Assets: A Need of Rationalization" expressed that NPA is hindering gainful investment. He also showed the difference of NPA conceptually in various countries.

Loan and advances of financial institutions are meant to be serviced either part of principle of the interest of the amount borrowed in stipulated time as agreed by the parties at the time of loan settlement. Since the date becomes pat dues, the loans become non-performing asset. The book of the account with lending institution should be effectively operative by means of real transaction effected on the part of the debtor in order to remain loan performing.

The definition of NPA differs from country to country. In some countries of Asia Pacific Economic Cooperation (APEC) forum, a loan is classified as non-performing only after it has been arrear for at least 6 months; similarly, it is after three months in India. Loans thus defaulted are classified into different categories having their differing implication on the assets management of financial institution opined by him. NPAs are classified according to international practice into three categories namely substandard, doubtful and loss depending upon the temporal position of loan default. "Thus the degree of NPA assets depends solely on the length of time the assets has been in the form of none obliged by the loan. The more time it has elapsed the worsted condition of assets is being perceived and such assets are treated according" stated by him.

Chhetri's view, failure of business for which loan was used, defective and below standard credit appraisal system, credit program sponsored by Government, slowdown in economy/recession, diversion of fund is some of the lending to accumulation of NPAs.

There is serious implication of NPAs, on financial institution. He further adds that the liability of credit institution does not limit to the amount declared as NPA but extend to extra amount that requires by regulation of supervisory authority in the form of provisioning as the amount required for provisioning depends upon the level of NPAs and their quality.' His view is rising level of NPAs create a psyche of worse environment especially in the financial institution like waiving interest, rescheduling the loan, writing

off the loan 'appointing private recovery agent, taking help of tribunals and law of land etc' NPA can be reduced. Finally, he concludes that financial institutions are best with the burden of mounting level of NPAs in developing countries.'" Such assets debar the income flow of the financial institution while claiming additional resources in the form of provisioning thereby hindering gainful investment' Rising level of NPAs cannot be taken as stimulus but the vigilance demanded to solve the problem like this , eventually will generate vigor to gear up the banking and financial activities in more active way contributing to energizing growth warned by him.

Golchha, (2007), in his article "NPAs at Nepalese Financial Sector " has highlighted NPA problem in Nepalese financial sector. In his view "the NPAs of the three banks (NBL, RBB and NIDC) are highly discussed and published. If we analyze them, we can find that the NPA of these banks have also made the required loan loss provisioning over the same period, high and improbable figures of NPA are still often quoted. There are many companies, which suspended their business one or two decade ago, but the banks are still carrying their loan account as NPA in their looks. They should have the guts to either foreclose on the collateral or write the loan off in such cases."

Ferguson, (2007), conducted a research on "Observations on the Securitization of Non-Performing Loans in Russia". Asset securitization is a burgeoning trend in Russia as companies burdened by poor credit ratings seek access to capital at lower costs than they would be allowed in traditional equity or debt markets. Study indicates that securitization of these bad loans has not occurred in Russia at the levels one might expect. This has been due to both relatively small amount of loans that under- perform as well as legal and regulatory impediments that have discouraged investors and lenders alike. The study has been conducted to examine the expansion of consumer credit in Russia and the circumstances under which it is occurring indicate that the level of non-performing loans is due to rapidly increase and as the rationale for maintaining the

impediments that stand in the way of securitizing these loans is being re-examined, those impediments are being scaled back to make way for market participants to engage in such securitizations. Thus, this article anticipates a significant rise in the level of non-performing loans, which will be logically paired with an increased interest of Russian lenders in securitizing these assets.

Neupane, (2008), in his article titled "Banks Cut NPAs to Global Level" has thrown some views regard bad loans of banking sector. As mentioned by him there was various type of risk inherent in the credit. One, who managed risk, earns profit. He further added that recent financial crisis in banking sector is due to weak accounting procedures, defect in loan classification, lack of transparency, loss control measure etc.

He opined that NPL is the indicator of financial crisis and the factor leading to NPLs is economics low down, recessions, bad intention of the borrower, lack of credit policy, increase in interest rate etc. NPLs increases resource mobilization cost and reduces profit-earning capacity of the bank. He has also mentioned that the international standard of acceptable NPA is 40% but here is about 26% NPL in Nepalese banking sector, which is due to high level of NPL of two nationalized banks. As stated by the writer, the major implications of NPL are banks cannot return depositors money on demand and it limits lending capacity of the bank. The writer suggested internal and external measure for reducing NPL and its effect.

Internal measures comprise classification of loan and advances and providing provision for probable loss and external measure comprises to help from credit Information Bureau (CIB), appointment of Asset Management Company (AMC) and Debt Recovery Tribunal (DRT). He concludes, banks must give priority for reducing NPA. He also mentioned that many countries are adopting various measures for reducing loan loss. Recently the president of Philippines has announced tax rebate system for reducing NPA. Now it is high time improved bad debts of banking sector with firm determination.

Ghimire, (2008), in his article titled “Credit Sector Reform and NRB" has tried to highlight the effects of change or amendment in NRB directives regarding loan classification of loan loss provisioning.” Although the circumstances leading to financial problem or crisis in many Nepali banks differ in many respects, what is a common are most of the bank is the increased size of non-performing-assets (NPAs).To resolve the problem of the loan losses or likely losses of this nature facing the industry NRB has as the central bank amended several directives and issued many new circulars in the recent years”

As opined by him, since majority of the loans of most of the commercial banks of the country at present falls under substandard, doubtful and even loss categories, loan loss provisioning now compared to provision arrangement would be dramatically higher. The new classification and provisioning norms are very last as they help to strengthen banks financially. He added that we also must remember that the old system remained in force from 1991 to 2001, which was probably the most volatile decade of the business operation of the country. He has indicated that loans loss provisioning as a percentage of total credit of April 12.2001 is 5.2% but as April 13,2003,it has jumped to 18.39.If only private banks are considered, it is 2.12% of April 200 1where as it is 6.30% as of April 13,2003, The total increment in LLP is Rs 11 328.11 million and the total increment in credit is only Rs 7976.7. He has also stated that tightening provisioning requirements on NPL is essential to ensure that banks remain liquid even during economic downturns.

In the conclusions he has mentioned that in the recent years NRB has worked for management and reform of the credit of the financial institution more seriously and NRB has adopted reforms aimed not just to dealing with problem banks but also at strengthening banking supervision to reduce the likelihood of future crisis. "All prudential directives of NRB in connection of credit sector reform have been made reversed on after April 2001. To adapt to such changes there can be some

difficulties and for a better a harmonized reform NRB should continue to be supportive, proactive and also participative to take opinions of bankers for a change in regulation policy taking place in the future".

Arora and Bansal, (2009), in the research on "An Analytical Study of Growth of Credit Schemes of Selected Banks" analyzed and compared the performance (in terms of loan disbursement and non- performing assets) of credit schemes of selected banks for the last five years. This paper is divided into two parts. In the first part, bank-wise as well as year- wise comparisons are done with the help of Compound Annual Growth Rate (CAGR), mean and standard deviation; and in the second part, a positive relationship is found between total loan disbursement and total NPA outstanding of selected banks with the help of a correlation technique. The study found a positive relationship between total loan disbursement and total Non-Performing Assets outstanding of selected banks.

Non-performing Loans (NPLs) or credit risk encapsulates the potential loss in the event of credit deterioration or default of a borrower (Elaine, 2007). Thus a sound credit appraisal of loans is very important to the creditor. As argued by Dorfman (1998), bankers required an understanding of credit standards, the process by which credit worthiness and credit structure are analyzed, decision-making techniques, negotiation, follow-up and problem resolution, in order to effectively manage credit risk. Abolo (1999) supported Dorfman's assertion and presented his own principles of lending under three headings, that is, safety, suitability and profitability of credit, which equally compel bankers to follow the lending rules. Although credit depends on good faith, and no matter the amount of confidence that parties have on each other, it does not reduce the importance of scrutiny of these loan portfolios where good faith has been violated either deliberately or inadvertently.

Thus, the lenders must search for and avoid dishonest borrowers. This involves sound credit analysis, which Nwankwo (1991) describes as the process of assessing the risk of lending to a business or individual against the benefits to accruable from such investment. The benefits can be direct, such as interest earnings and possibly deposit balances required as a condition of the loan or indirect, such as initiation or maintenance of a relationship with the borrower, which may provide the bank with increased deposits and with demand for a variety of bank services. He argues further that credit risk assessment has two aspects. One is qualitative, and generally the more difficult; and the other quantitative. To evaluate the qualitative risk, the loan officer has to gather and appraise information on the borrower's record of financial responsibility, determine his true or correct need for borrowing, identify the risks facing the borrower's business under current and prospective economic and political situations, and estimate the degree of his commitment regarding the repayment.

To estimate the financial viability of a portfolio, banks should not only limit their analysis to project evaluation techniques alone, but also by evaluating all credit risks that could become threats to the overall performance of such a portfolio. Schall and Halley (1980) outlined the key indicators for loan analysis as capacity, collateral, capital, condition and character. He concludes that lending involves the creation and management of risk assets and is an important task of bank management. While being the highest earning asset, the loan portfolio is also the most illiquid and most risky of banks' operation.

Non-performing Loans (NPLs) are the most common causes of bank failures. This has made all regulatory institutions to prescribe minimum standards for credit risk management. The basis of sound credit risk management is the identification of the existing and potential risks inherent in lending activities. Measures to counteract these risks normally comprise clearly defined policies that express the bank's credit risk management philosophy and the parameters within which credit risk is to be

controlled. De Servigny and Renault (2004) opined that specific credit risk management measures typically include three kinds of policies. One set of policies include those aimed to limit or reduce credit risk, such as policies on concentration and large exposure, adequate diversification, lending to connected parties, or over-exposure. The second set includes policies of asset classification which expose a bank to credit risk. The third set include policies of loss provisioning or the making of allowances at a level adequate to absorb anticipated loss-not only on the loan portfolio, but also on all other assets that are sensitive to losses.

Murinde and Yaseen, (2012), in his article "Management of NPA" on management of NPA made it clear that the traditional approaches to bank regulation are not conducive for management of NPA. These approaches emphasized the view that the existence of capital adequacy regulation plays a crucial role in the long-term financing and solvency position of banks, especially in helping the banks to avoid bankruptcies and their negative externalities on the financial system. In general, capital or net worth serves as a buffer against losses and hence failure. Rather than accommodating measures to combat the NPA issues, the traditional measures tried to protect the interest of deposits through maintaining adequate capital in liquid form. This has affected the availability of funds for productive purpose since banks were not able to lend it, rather forced to keep as reserves. Strengthening financial systems has been one of the central issues facing merging markets and developing economies. This is because sound financial systems serve as an important

channel for achieving economic growth through the mobilization of financial savings, putting them to productive use and transforming various risks. He emphasized that the essential components of sound NPA management are as follows.

• Quick identification of NPAs,

• Their containment at a minimum level and

• Ensuring minimum impact of NPA on the financials.

In January 2012, the Governor of the Reserve Bank of Zimbabwe, Dr Gideon Gono noted with concern the gradual deterioration in asset quality as reflected by the level of non-performing loans (MPS, 2012). He highlighted that asset quality challenges can potentially heighten liquidity risks given the current operating environment where credit is largely financed by volatile short term deposits. In this regard, he urged banking institutions to enhance their credit risk management systems with special emphasis on credit assessment, origination, administration, monitoring and control standards. Fofack (2005) argues that when left unsolved, nonperforming loans can compound into financial crisis, the moment these loans exceed bank capital in a relatively large number of banks. Recently, Interfin Bank Limited was placed under recuperative curatorship on 11 June 2012 (Mid-Term MPS, 2012). The Governor of RBZ issued a press statement advising of the closure of Royal Bank Limited after the directors of the bank resolved to surrender their license on 27 July 2012 (RBZ Press Statement, 2012). Nonperforming loans were cited as the major common problem that was faced by Interfin Bank Limited. This is the second time within a period of eight years that Royal Bank Limited has failed (Mid-Term MPS, 2012 and RBZ Press Statement, 2012). Apparently in both cases the issue of non- performing loans was mentioned. DemirgueKunt et al (1989), cited in Berger and De Young (1997), indicate that failing banks have huge proportions of bad loans prior to failure and that asset quality is a statistically significant predictor of insolvency.

Montecillo, (2013), in his article "Banks' nonperforming loans down in June". Bad loans held by major banks decreased in June despite the continued rise in lending to support the country's growing economy, data released this week showed. In a statement, the Bangko Sentral ng Pilipinas said nonperforming loans (NPL) held by universal and commercial banks declined at the end of June from the May level. "The latest NPL figures indicate the banks' continued efforts to adhere to sound credit risk management systems and maintain high loan quality," the BSP said, commenting on the data. The NPLs-to-total loans ratio at the end of June declined to 2.68 percent from 2.75 percent in May and 3.01 percent in June 2012.

NPA does not yield any income for the banks in the form of principal and interest payments. NPAs eat into the income of the financial institutions as the primary source of income of financial institutions is the interest payments made by the borrowers. Moreover, the banks need to provision certain portion of their profit to balance the NPAs so that higher NPAs translate as lower profit. With the growing bad loans of the bank, loan loss provisioning has also scaled up by almost eight per cent, this quarter. The average loan loss provisioning has reached Rs 3.7 billion which stood at Rs 3.4 billion last quarter. The larger loan loss provisioning for the loans gone bad has eaten up the profit of the banks. The operating profit of the 16 commercial banks has dropped by 18 percent. The average operating profit stood at Rs 494 billion in the third quarter while in the corresponding period last fiscal year, banks were enjoying more than Rs 606 million as operating profit. The mounting number of bad loans, high cost of fund but lowered interest spread has marred the bank's income. On the other hand, lack of viable projects to finance has led to banks' investment and lending remaining limited to low yielding investment. Despite all the problems, Standard Chartered Bank, Nabil Bank and Everest Bank have successfully reaped an operating profit higher than Rs one billion, this quarter.

Nepali stock market blog, (2013), article in titled 'Rising provision, NPA threaten to cast shadow over banks' profits Though' the article says, profits posted by most commercial banks for FY 2069/70 came as great news for the entire banking sector, the scenario might not be as rosy as it seems. Most of the banks have set aside huge amount of provision for nonperforming assets (NPA) to make up for bad loans. NPAs of KIST Bank (6.59%), ADBNL (5.72%) and RBB (5.31%) are above the acceptable level of 5%. The figures still signaled improvement for ADBNL and RBB from FY 2068/69, when the two banks had posted NPAs at a threatening 8.98% and 7.27%, respectively. But in case of KIST, which had reported an NPA at 3.94% in the previous fiscal, the situation has gone worse. Again, though the NPAs of other

commercial banks are below the alarming 5% level, the fact most banks have posted an increase in their NPA compared to the fiscal year 2068/69 can become a source of concern. Sanima Bank, Janta Bank, NSBI, Century Bank, Civil Bank, Everest Bank, Standard Chartered and Lumbini Bank have managed to maintain their NPAs at below 1 percent.

Nepalnews.com, (2013), article in titled 'NPA level of commercial banks increases twice' The article says, The level of Non-Performing Assets (NPA) of commercial banks have increased by almost twice in the second quarter of the current fiscal year, media reports said. The average ratio of NPA to the performing loans in the second quarter of the current fiscal year is at 0.88 per cent which was 0.48 per cent in the corresponding quarter of the previous fiscal year, according to the unaudited financial figures of the second quarter of the current fiscal year.The downturn in realty and housing sector has been ascribed to the augmentation in NPA of the commercial banks this season.

Among the unaudited financial statements released by the twelve commercial banks Bank of Asia Nepal (BOAN), Kumari Bank Ltd (KBL), Kist Bank Ltd (KIST), Siddhartha Bank Ltd (SBL), Global Bank Ltd (GBL), Laxmi Bank Ltd (LBL), Citizens International Bank Ltd (CZBL) and Prime Bank Ltd (PBL) are the commercial banks expected to report an increased NPA for the second quarter in comparison to that of corresponding quarter in the previous fiscal year, it is reported. On the other hand, Standard Chartered Bank (SCBL), Nepal SBI Bank (SBI) and DCBL Bank Ltd (DCBL) are expected to witness a decline in NPA. NPAs are a vital yardstick gauge the financial status of any bank or financial institution.

The kathmandu Post, (2013), article in titled " Fincos' NPL worsens, reaches 16.1pc worsen" the article says, non-performing loans (NPL) of finance companies have surged by more than six percent points over one year due to crisis facing some of the finance

companies and non-recovery of real estate loans. According to Nepal Rastra Bank , their non-performing loan (NPL) reached 16.1 percent as of mid-August up from 10 percent in mid-August 2012. The NPL refers to the size of defaulted loans and anything over the size of 5 percent is considered problematic. Loans worth Rs 10.5 billion out of the total loan size of Rs 65.25 billion disbursed by the finance companies as of mid-August is considered bad. Officials of both the central bank and finance companies have been laying blame on troublesome finance companies and non-recovery of real estate loans for the ballooning NPL. Samjhana Finance, Nepal Share Market and Finance, Crystal, Kuber, Himalaya, Capital Merchant and Finance, World Merchant Banking and Finance and General Finance have been declared crisis-ridden. A senior official at the NRB said that all eight finance companies which have been declared crisis-ridden have 50-80 percent NPL, surging the size of the NPL. "There are about a dozen finance companies whose NPL level is below 5 percent but a majority of the finance companies have NPL level of 10-15 percent," said the NRB official. A total of 57 finance companies are currently in operation in the country. He lamented that loans disbursed without adequate collateral are difficult to recover. A majority of finance companies that lent massively into the real estate sector in the past when the sector was booming are now struggling to recover their loans.

Lending to the real estate sector was so rampant that even loans categorized under different headings were found to be disbursed in the sector, according to Rajendra Man Shakya, President of Finance Companies Association of Nepal. "As the recession hit the sector, loan recovery has become a big challenge," he said. "With many companies with small size of capital lending massively to the sector, the NPL level has only worsened."

In the recent years, finance companies faced the biggest trust deficit from the depositors after problem appeared in one after another company. So, institutional depositors like Army Welfare Fund and Citizen Investment Trust ceased to deposit in finance companies lately. According to Shakya, the Valley based finance companies which had aggressively lent out to the real estate sector are in deeper trouble than those outside. The

real estate sector has seen a growth in transaction lately, with the Department of Land Reform and Management reporting to have exceeded its revenue collection target by 27.57 percent in the last fiscal year 2012-13.

However, real estate traders maintain that only small amount of land and properties have been sold in the recent days. “As such only small scale loans to the real estate sector are being recovered but not big scale ones,” said the NRB official. It concludes that it is like a cancer of banks. Thus, it is necessary to control this cancer on time; otherwise, it becomes a big issue for bankruptcy. NPA need microanalysis to protect the banks, investors, customers, human resources and country's economy. For that, a clear 'Road Map' is required. To success the laws and policies, all the stakeholders should take responsibilities.

2.4 Review of previous Thesis

Ghimire, (2005), entitled with "Non- performing Assets of commercial Banks: causes and effects" the main objective of this study are as follows:

- To analyze the cause and effects of non-performing assets in commercial bank
- To evaluate the impacts of NPA on the profitability of commercial bank
- To analyze the level of NPA selected commercial banks.

Major finding of this study are as follows:

- Non-performing assets and overall profitability of the banks tend to have inverse relationship.
- Profitability of the bank tends to have inverse relationship between credit extend and increment on nonperforming assets and it may be significant in case of aggressive credit expansion.
- Findings showed that Non Banking Assets is credited due to having non-performing assets.

Shrestha, (2009), in a study entitled "A study on the credit risk management of Nepalese Commercial Banks" aims at the following objective taking Kumari Bank Ltd (KBL) and Machhapuchre Bank Ltd (MBL) as sample banks:

- To examine the credit risk position of the selected commercial banks in Nepal
- To analyze the credit risk management system and practices of KBL and MBL
- To evaluate the organizational structure of KBL and MBL to manage the credit risk.

Major finding of this study are as follows :

- The concentration risk is the main source of credit risk for both KBL and MBL. Similarly, lack of systematic and thorough credit processing is also the major source of credit risk in these banks.
- The problems in credit processing include lack of thorough credit assessment, absence of testing and validation of new lending techniques, subjective decision- making by senior management, lack of effective credit review process, failure to monitor borrowers or collateral values, and failure of banks to take sufficient account of business cycle effects etc.
- The market-sensitive and Liquidity-sensitive exposures also increase the credit risk of these banks. Similarly, it is found that both banks have their own rating system of the credit client and the sectors.

Khadka, (2011), entitled with "Non-performing Assets of Nepalese commercial Banks" the main objective of this study are as follows:

- To analyze the non performing assets of the commercial banks.
- To examine the level of NPAs in total assets, total deposits and lending of commercial banks.

- To examine whether the Nepalese commercial banks are following the NRB directives regarding nonperforming assets or not.

The major findings of this study are as follows:

- The level of NPA of Nepal Bangladesh Bank limited seemed greater than all of the other banks under the study. Similarly, Nepal SBI Banks and Bank of Kathmandu stand at second and third position respectively.
- The position of NABIL Bank Limited seemed to be quite satisfactory because the bank has been reducing its NPA every year and NPA of Nepal Investment Bank has been reducing it at minimum than that of all the other banks and it is found that none of the banks have been following the directives of NRB regarding the loan loss provision.

Neupane, (2012), conducted a research entitled "Non-performing Assets and Profitability of Commercial Banks in Nepal" the main objective of this study are to access the non-performing assets of the commercial banks under the study. The other specific objectives of the present study are as follows:

- To study the trend and composition of non-performing assets of commercial banks.
- To analysis the major profitability indicators of commercial banks.
- To access the relationship between the profitability and the non performing assets of the commercial banks.
- To recommend for the improvement of the management of NPA based on the findings of the study.

Major finding of this study are as follows:

- NPA of NABIL is increasing trend except the fiscal year 2064/065 and the total loan & advance is in increasing trend over the study period. The percentages of

NPA is increasing over the study period except the year 064/065. The average NPA ratio of the bank is 1.18% and standard deviation is 0.44% over the study period.

- The NPAT of NABIL, SCBNL & HBL is in increasing every year but the net profit of HBL is decreasing in the fiscal year 066/067 than previous year. similarly, the NPAT of NBB is negative in the fiscal year 2063/064 and then it is highly increasing in the fiscal year 064/065 and 065/066.
- The net profit margin of NABIL is decreasing in each year, ROTA ratio is fluctuating tend and ROLA ratio is fluctuating trend over the study period.
- The net profit margin of SCBNL is fluctuating in each year, ROTA ratio is fluctuating trend and the ROLA ratio is also fluctuating trend over the study period.
- The trend analysis found that the increasing trend of NPA of NABIL, decreasing trend of SCBNL, increasing trend of NPA of HBL and deceasing trend of NPA of NBB.

Pradhan, (20013), entitled with "Non performing Loan management of Nabil Bank: the main objective of this study are as follows:

- To analyze the level of non-performing loans of Nabil Bank Ltd.
- To make an assessment of loan loss provision made against the NPL by Nabil Bank Ltd.
- To examine the relationships between the NPL and profitability, assets and business turnover of the bank.
- To evaluate the impact of non-performing loans in the performance in Nabil Bank.
- To provide recommendation on reducing the level of NPA.

The major findings of the study.

- The loans and advances to total deposit ratio is also in the fluctuating trend. The mean is 74.00% which indicates the average efficiency of the bank in utilization of its deposits. The S.D. is 4.00% and C.V is 0.00%. It signifies less deviation and more consistency in advancing loans out of deposits.
- The average mean ratio of non-performing loans to total loans and advances is 1.50 %, which is considered to be a strong side of the bank in managing NPLs. The S.D is 0.70% and C.V is 0.00%. It can be said that the bank controlling its NPLs efficiently.
- The ratio of provision held to total non-performing loans is sufficiently high. The average mean is 96.60%. The standard deviation is 78.10% and C.V. is 15.90%. It indicates that the bank has sufficiently provisioned against non-performing loans. The higher the ratio of NPL provisioned against loans, the better the cushion against the risk of actual loan loss.
- The average ratio of non-performing loan to total asset is 0.90%. The ratio is continuously decreasing. This indicates that banks have properly managed its loans and advances. The S.D is 49.20% and C.V. is 9.70% respectively.
- The ratio of net income to total loans and advances shows how efficiently bank has through its lending activities. The average ratio is 0.90%. The S.D of the ration is 49.00% and C. V. is 9.70% respectively. The lower S.D. and higher the C.V. indicates greater the stability in income generation.
- The correlation between deposits and loans and advances is positive and significant. The coefficient of correlation between loans and deposits is 0.9925. The coefficient of determination is 0.9851. The correlation is significant because the correlation coefficient is greater than the relative value of 6 P.Er.
- The coefficient of correlation between loans and advances and net profit is 0.9866 shows that the correlation between the two variables is significantly positive. The coefficient of determination is.0.9734, which indicates that 97.34% percent variability in net profit is explained by loans and advances. The

relationship between Loans and advances and net profit is significant because the correlation coefficient is greater than 6P.Er. It can be concluded that the bank can increase its net income by increasing its loans advances.

2.5 Research gap

The purpose of the research work is quite different from the studies made by the above persons (related to commercial bank). This study focuses in analysis of non-performing loan and loan loss provision of Nepal SBI Bank and Everest Bank Ltd. Different financial & statistical tools have been used in This study. Among them, ratio analysis, regression analysis are the strong financial tools. This study is a little bit different than previous studies. It may be one of them research study of non-performing loan and loan loss provision of few research work with reference to NSBL and EBL. This study tires to indicate the effectiveness of investment policy of concerned banks through analysis of non-performing loan and loan loss provisions.

CHAPTER - III
RESEARCH METHODOLOGY

3.1 Introduction

Research is conducted for various reasons. Good research result is based upon good and well planned research methodology. To accomplish research and find out the objective of research it must be systematically managed. This study aims to evaluate the impact of non-performing assets on various sectors of commercial banks. The objective can be achieved by analyzing the activities i.e. deposit, loan and advances and investment of commercial banks.

In the previous chapter, the conceptual framework regarding non-performing assets and relevant literature has been reviewed so as to broaden the base of this Study. As a result these study and analysis has become a major tool to choose research methodology Research methodology refers to the various sequential steps to adopt by a researcher in studying a problem with certain objectives in view (Kothari;1989) in other words research methodology describes the method, procedures and plans of conducting research. It is a blue print to achieve goal. Appropriate and adequate methodology yields more accurate conclusions and findings which ultimately help to recommend viable solutions to their search problems.

3.2 Research Design

Research design is the plan, structure and strategy of investigation conceived so as to obtain answer to research questions and to control variances (Kerlinger 1978, p: 300). This study does not strictly follow entire aspect of a single research design. Mainly quantitative types of data and information have been processed. So, descriptive, comparative (co-relational) designs have been used to analyse the non-performing loan and loan loss provision of the sample banks. In order to ascertain the extent to which

non-performing loan and investment policies are related; to describe whether these two or more other variables co-vary and if so, to establish the direction, magnitude and form of observed relationship, comparative design would be appropriate. Similarly, descriptive nature of associated problems and other objectives of the study, descriptive design would be additional benefit to make this study complete and meaningful. In addition to this, casual comparative design has employed. This design has helped to investigate the possible causes affecting market price of shares by observing existing situation and to search the possible factors leading to these results. Hence, descriptive, co-relational and casual comparative designs have been used to complete this study.

3.3 Sources of Data

Basically, there are two types of data one is primary and second is secondary data. These data are classified on the basis of the nature of collection. Primary data: Primary data is collected for the first time and it is original in its form. On the basis of research questions information are directly gathered from the informant is known as primary data. These data are collected from the informant directly. These data are first hand information.

Secondary Data: Secondary data are reused data. Those data already collected by various individuals and organizations in the form of primary data and secondary data are known as secondary data.

To conduct this study, secondary data are taken from annual reports of related office and their websites. So the major sources and types of data include these published sources,

- Financial statement of Nepal SBI Bank Limited and Everest Bank Ltd.
- Annual report of the banks
- Different previous studies
- Related bulletins, reports, periodically published by various government

bodies.

3.4 Method of Analysis

Both statistical and financial tools are used in this study. The analysis of data will be done according to pattern of data available. Because of limited time and sources, simple analytical statistical tools such as graph, percentage, Karl Pearson's co-efficient of correlation and the method of least square are adopted in this study. Similarly some strong tools such as ratio analysis and t rend analysis have also been used for financial analysis. The various calculated results obtained through financial, and statistical tools tabulated under different headings. Then they are compared with each other to interpret the results.

3.4.1 Financial Tools

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

Ratio Analysis

Ratio analysis is the most effective tool of financial analysis. It is the widely used tool in financial analysis. A ratio simplify shows the relationship between the two variables or one another. It presents the relative strengths and weakness of any firm or organization. It also shows the financial growth of the organization and financial performances of the organizations. It summaries the financial figures and make quantitative judgment about the financial performances and positions. The relationship between two accounting figures expressed mathematically is known as financial ratio (Pandey; 2000:108).

To make analysis w e can use various ratios. But only those ratios have been calculated which are related to the research topic.

Loan and Advances to Total Deposit Ratio (CD Ratio)

The loan and advance to total deposit ratio shows the relationship between the loan and advance and total deposit. It shows how much fund of deposit is provided as loan and advance. This ratio is used to find out how successfully the banks are utilizing their deposited fund on credit or loan for profit generating purpose as loans and advances yield high rate of return. Higher CD Ratio implies the better utilization of total deposits and better earning. Hence 70% to 80% CD ratio is considered as more appropriate. This ratio can be calculated as follows:

$$\text{Loan and Advances to Total Deposit Ratio} = \frac{\text{Loan and Advance}}{\text{Total Deposits}} \times 100\%$$

Loan and Advances to Total Assets Ratio

The loan and advances to total assets ratio measures the amount of loan and Advances in the total assets. It means that it shows the proportion of loan and Advances to total assets. High degree of loan and advances indicates the good position of the organization that of good mobilization of deposits of funds. In inverse, low degree of loan indicates that is no use of fund properly. Loan is the risky assets. Thus, higher loan and advances to total assets ratio shows high risk and inversely low loan and advances to total assets ratio shows low risk. Risk consist the uncertainty and future is uncertain. Thus, the loan and advances may or may not be recovered with its interest. This ratio can be calculated as follows:

$$\text{Loan and advances to Total Assets Ratio= =} \frac{\text{Loans and Advances}}{\text{Total Assets Ratio}} \times 100\%$$

Non-performing Assets to Total Loans and Advances Ratio

This ratio determines the non-performing assets in the total loan and advances portfolio' Greater ratio implies the bad quality of loan of the bank. Hence lower non-performing assets to loans and advances ratio are preferable. As per international standard only 5% NPA is allowed but in the context of Nepal 10% NPA is acceptable. It is calculated as:

$$\text{NPA to Total Loans and Advances Ratio} = \frac{\text{Non-performing loan}}{\text{Loan and Advance}} \times 100\%$$

Loan Loss Provision to Total Loan and Advances Ratio:

The provision for loan loss reflects the increasing probability of non-performing loan. Increase in loan loss provision decreases its profit and result to decrease in dividends. But its positive impact is to strengthen the financial conditions of banks by controlling the credit risk and reduced the risks related to deposits. The low ratio indicates the good quality of assets in total volume of loan &advances. High ratio indicates more risky assets in total volume of loan & advances.

$$\text{Loan Loss provision to Total Loan and advance Ratio} = \frac{\text{Loan Loss Provision}}{\text{Total Loan and Advances Ratio}} \times 100\%$$

Loan loss provision to Non-performing Assets Ratio

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 is expressed as:

$$\text{Loan loss Provision to NPL} = \frac{\text{Loan loss provision}}{\text{Non-Performign loan}} \times 100\%$$

Return on Loans and Advances

This ratio indicates the proportion of the return over total loans and advances. It Describe show efficiently the bank has utilized and mobilized its resources in the form of loans and advances of the banks. Higher the ratio better is the performance of the banks and vice versa. It is calculates as:

$$\text{Return on Loan and Advances} = = \frac{\text{Net profit}}{\text{Loan and Advance}} \times 100\%$$

3.4.2 Statistical Tools

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

Arithmetic Mean

The arithmetic mean or simple mean of set of observations in the sum of all the observation divided by the number of observations. It is the best value, which Represent to the whole group... means is the arithmetic average of a variable. Arithmetic mean of a series is given by:

$$\text{Mean } (\bar{X}) = \frac{\Sigma x}{n}$$

Where,

$\bar{X}$= Sum of the variables 'x'

N = No. of Observation

This tool is used to find out mean of Total Deposit, total loan and advances Non- Performing asset, Loan Loss Provision.

Standard Deviation

The standard deviation is the absolute measure of dispersion in which the drawback present in other measure of dispersion as it satisfied most of the requisites of a good measure of dispersion. Standard deviation is defined as the positive square root of the mean as square of the deviation takes from the arithmetic mean. It indicates the ranges and size of deviance from the middle or mean. It measures the absolute dispersion. Higher the standard deviation Higher will be the variability and vice versa. Dispersion measures the variation of the data from the central value. In other words, it helps to analyze the quality of data regarding its variability. It is calculate as:

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\Sigma(X - \bar{X})^2}{n}}$$

This tool is used to calculate the deviation of total deposit, total loan and advances, loan loss provision and non-performing assets.

Co-efficient of Variation (CV)

Standard deviation is the absolute measure of dispersion. The relative measure of dispersing based on the standard deviation is known as the measurement of coefficient of standard deviation. The percentage of measure of co-efficient of so is called co-efficient of variation. Less CV is the more uniformity and consistency and vice versa. Only standard deviation is not appropriate to compare two pairs of variables but also CV is capable to compare two variables independently in terms of their variability. It is calculated as under:

$$\text{Coefficient of Variation (C.V.)} = \frac{\text{S. D.}}{\bar{X}} \times 100$$

This tool is also used to find out the consistency of total deposit, total loan and advance, loan loss provision and non-performing assets.

Correlation Coefficient (r)

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

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

Where,

r = coefficient of correlation

ΣXY = Sum of product of two series.

ΣX^2 = Sum of squared in X series

ΣY^2 = Sum of squared in Y series

n = number of years

The value of this coefficient can never be more than + 1 or less than -1. Thus, + 1 and -1 are the limit of this coefficient. The r = + 1 implies that correlation between variables is positive and vice- versa. And zero denoted no correlation.

t- Statistics

It was developed by W.S. Grosset (Pen name Student) in 1908. Then this distribution is explained by R.A. Fisher. To test the validity of assumption of the study for small samples, t- test is used. For applying t distribution, the t- values are calculated first and compared with the critical values at a certain level of significance for given degree of freedom. If the computed value of "t" exceeds the table value (say t 0.05), it is known that the difference is significant at 5 percent level of significance but if t- values are less than the corresponding critical of the 't' distribution, the difference is not termed as significant. Under H0, the t statistic is:

$$t = \frac{r}{\sqrt{1 - r^2}} \times \sqrt{n - 2}$$

Where,

t=calculated value of t

r= correlation of coefficient between the variables.

n= number of sample.

Trend Analysis

A series formed from asset of statistical data arranged in accordance with their Time of occurrence is said to be a time series. It is one of the statistical tools, which indicates the improvement or decrement of the financial situation. It helps to determine the future values of the variables. The way from which the maximum information can be drawn from the figure collected is known as the analysis of time series.

$Y = a + bx$

Where,

Y = trend value or dependent variables

a = Y intercept

b = Slope of trend line of the amount of change in Y variables that is an associate with change in 1 unit in X variable

x =Time variable This is also very important statistical tools. This tool is used to forecast loan and advances, loan loss provision and non-performing assets and also net profit of the company.

Graphical Representation

Diagrams and graphs are visual aids that give a bird eye view of the given set of numerical data. They represent the data in simple and readily comprehensive form. Here various bar diagrams, pie charts and graphs have been used for presentation and analysis of data.

CHAPTER - IV

DATA PRESENTATION AND ANALYSIS

This chapter is devoted to presentation and analysis of the selected data of Nepal SBI Bank Ltd. and Everest Bank Ltd. collected to fulfill the set objectives of the study. Under this chapter various financial ratios are used to analyze the non-performing loans and its relationships with other measures of bank performance. The financial indicator of the bank is compared with the help of ratio analysis, as well as statistical tools.

4.1 Ratio

4.1.1 Loan and Advances to Total Deposit Ratio

Loan and Advance is major function of commercial banks. Its circulation plays vital role in the profit of company and its overall performance of company. Banks must be able to use its fund and assets as loan and advances.

Same way deposit collection is major function of commercial banks. These deposit demands interest. Collected deposits in the form of saving and fixed deposits are to be paid certain interest. So, if banks are unable to mobilize these deposits in the form of loan and advances they may not be able to pay any interest. Finally and gradually they may go bankrupt. Hence it is always necessary to mobilize funds of commercial banks in the form of loan and advances.

The ratio of Loan and Advances to Total Deposit reveals the loan and advance situation of commercial banks. It shows how much of their deposit is utilized in the form of loan and advances. While disbursing deposit as loan and advance banks must act prudently. Banks deals with many people known as its clients in the form of depositor, creditor and other stake holders. These clients have their own problem and demands. They approach banks with different demands and problems. Banks have to

disburse money to lenders and borrowers. So bank must have certain money to meet the needs of borrowers and lenders. Banks cannot use all deposits as loan and advance. Meantime bank cannot preserve deposit without using as loan and advances because they are obliged to meet the interest of deposit.

The ratio is calculated by dividing Total Loan and Advances by total deposit as follow:

Table: 4.1

Total Loan and advance to Total deposit

(Rs. in millions)

Fiscal year	EBL			NSBL		
	Loans and advance	Total deposits	Ratio	Loans and advance	Total deposits	Ratio
2008/09	23,884	33,322	71.68	15,131	25,957	58.29
2009/10	27,556	36,932	74.61	17,480	34,896	50.09
2010/11	31,057	41,127	75.51	21,365	42,415	50.37
2011/12	35,910	50,006	71.81	26,142	53,337	49.01
2012/13	43,393	57,720	75.18	28,788	58,920	49.00
Mean	**73.76**			**51.35**		
S.D.	**1.67**			**3.51**		
C.V.	**2%**			**7%**		

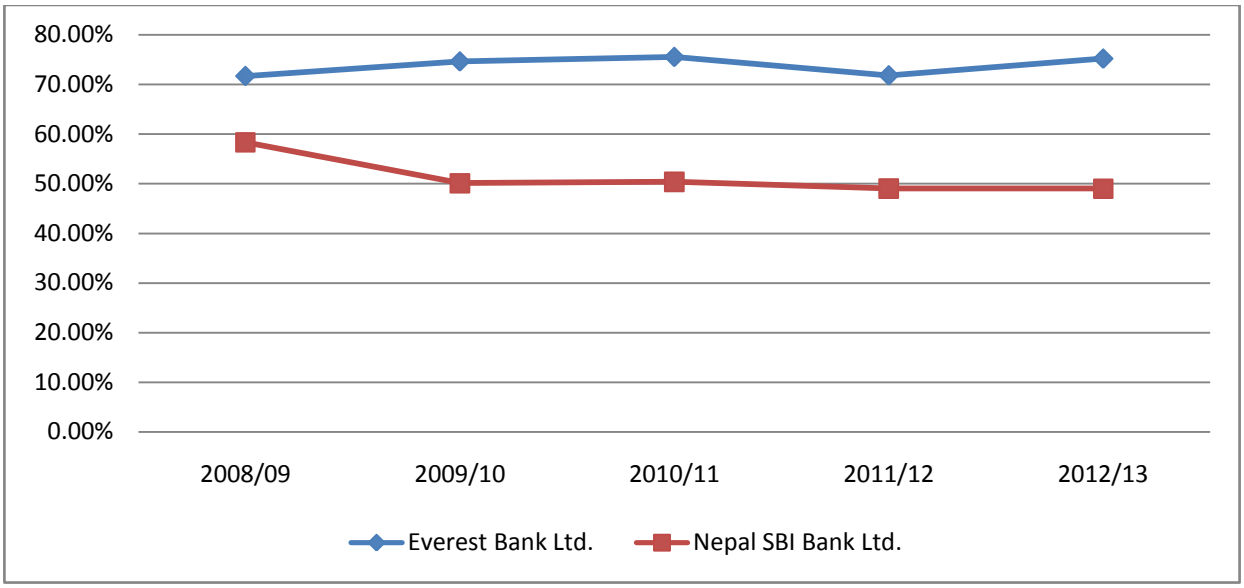
Source: Appendix i,iii,vii,viii

The table 4.1 shows that the total loan & advance to total deposit ratio of EBL is 71.68%, 74.61%, 75.51% , 71.81% and 75.18% respectively from fiscal year 2008/09 to 2012/13. Similarly, the ratio of NSBL bank is 58.29%, 50.09%, 50.37%, 49.01% and 49.00% from fiscal year 2008/09 to 2012/13 respectively. In average comparison, EBL Bank has utilized its total deposits better in consecutive years. Likewise, the mean ratio of EBL and NSBL are 73.76% and 51.35% respectively. . Higher loan and advance to total deposit ratio shows higher risk and higher turnover. So,

EBL has invested their deposit more in loan and advance to earn higher profit. By coefficient variation analysis, EBL bank has more uniformity than NBBL since EBL has less CV of 2%. EBL has been strong to mobilize its total deposit as loan and advances. Nevertheless, higher ratio doesn't necessarily mean that it is always better from liquidity point of view. EBL seems more aggressive than NSBL. But it is true that the banks should aim to maintain more than 50% of deposits as loan to achieve profit. It is also presented in the following figure.

Figure: 4.1

Total Loan and advance to Total deposit Ratio



4.1.2 Loans and advances to total assets ratio:

Loans & advances is the major part of total assets for the bank. This ratio indicates the volume of loans & advances out of the total Assets. A high degree of the ratio indicates that the bank has been able to mobilize its fund through lending function. However lending always carries a certain risk of default. Therefore a high ratio represents low liquidity and low ratio represents low productivity with high degree for safety in terms of liquidity. Followings are the summarized picture of total Loans and Advances and Total assets of Nepal SBI Bank Ltd and Everest Bank Ltd.

Table: 4.2

Total Loan and advance to Total assets

(Rs. in millions)

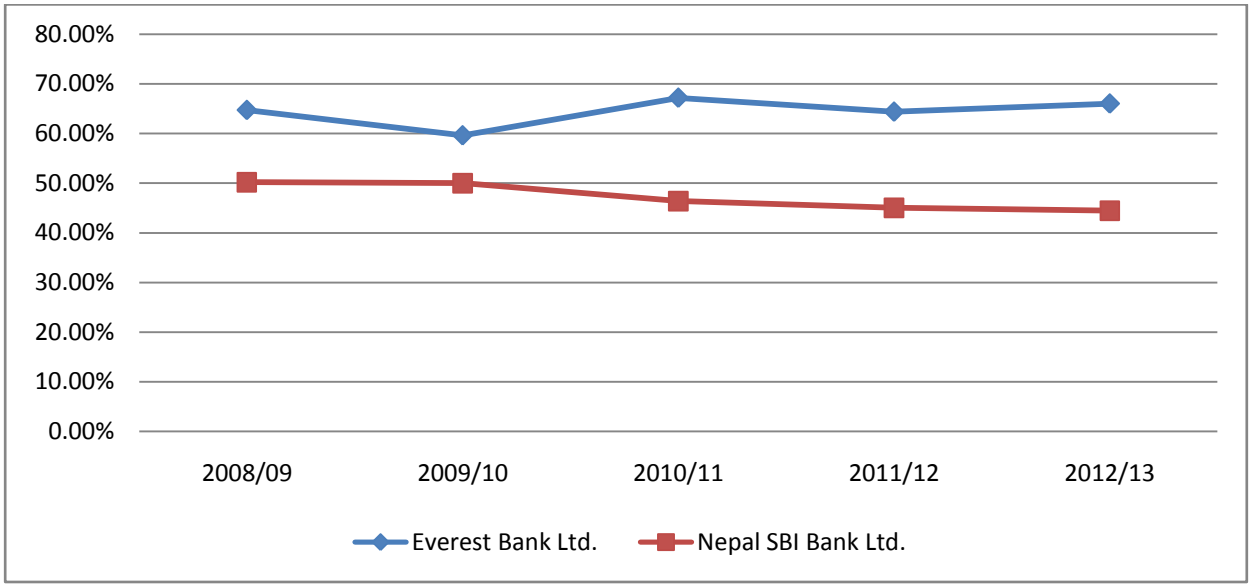
Fiscal year	EBL			NSBL		
	Loans and advance	Total aseets	Ratio	Loans and advance	Total assets	Ratio
2008/09	23,884	36,916	64.70	15,131	30,166	50.16
2009/10	27,556	41,382	59.60	17,480	38,047	49.94
2010/11	31,057	46,236	67.17	21,365	46,088	46.36
2011/12	35,910	55,813	64.34	26,142	58,059	45.03
2012/13	43,393	65,741	66.00	28,788	64,796	44.43
Mean	**64.36**			**47.18**		
S.D.	**2.58**			**2.42**		
C.V	**4%**			**5.10%**		

Source: Appendix i,iii,vii,viii

The table 4.2 shows that the ratio of total loan & advance to total assets in five years for the sample commercial banks. Total loan to total assets ratio of EBL ranges the highest of 67.17% in the fiscal year 2010/11, and the lowest of 59.60% in the fiscal year 2009/10. Likewise, the ratio of NSBL is highest of 50.16% in the fiscal year 2008/09 and the lowest of 44.43% in the fiscal year 2012/13 respectively. The mean ratio of EBL is 64.36% which is higher than NSBL i.e. 47.18%. It can be concluded that the higher mean ratio indicates the good lending performance. By measuring coefficient of variation, EBL is more uniformity than NSBL since EBL has lesser CV of 4.00% than that of NSBL i.e. 5.10%. Here, EBL and NSBL should focus to increase loan to total assets ratio to increase lending performance. It is also shown from the following figure.

Figure: 4.2

Total Loan and advance to Total assets



4.1.3 Non- Performing Loans to Total Loan and Advance Ratio

Non- performing assets, also called non-performing loans, are loans on which repayments or interest payments are being made on time.

A loan is an asset for a bank as the interest payments and the repayments of the principal create a stream of cash flows. It is from the interest payments a bank makes its profits.

Banks usually treat assets as non-performing if they not serviced for some time. If payments are late for a short time a loan is classified as past due. Once a payment becomes really late the loan classified as non-performing.

Increase in the amount of non-performing assets or loans means mismanagement of loan and deposit of individuals and households. Profitability of bank may dwindle. So commercial banks need to reduce non-performing assets or loans.

The Ratio of NPL to total loan Advance reveals how much or the loan and advances are non-performing assets.

It is calculated as follow

$$\text{NPL to Total Loan and advance Ratio} = \frac{\text{Non-performing Loans}}{\text{Total Loan and advances}} \times 100$$

Table: 4.3

Non-performing Loans to Total Loan and advance Ratio

(Rs. in millions)

Fiscal year	EBL			NSBL		
	Non – performing loans	**Loan & advance**	**Ratio**	**Non – performing loans**	**Loan & advance**	**Ratio**
2008/09	117	23,884	0.49	315	15,131	2.08
2009/10	125	27,556	0.46	494	17,480	2.83
2010/11	108	31,057	0.35	239	21,365	1.12
2011/12	307	35,910	0.86	143	26,142	0.55
2012/13	276	43,393	0.64	108	28,788	0.38
Mean	**0.56**			**1.39**		
S.D.	**0.18**			**0.94**		
C.V.	**32%**			**68%**		

Source: Appendix i,iii,v,vi,vii,viii

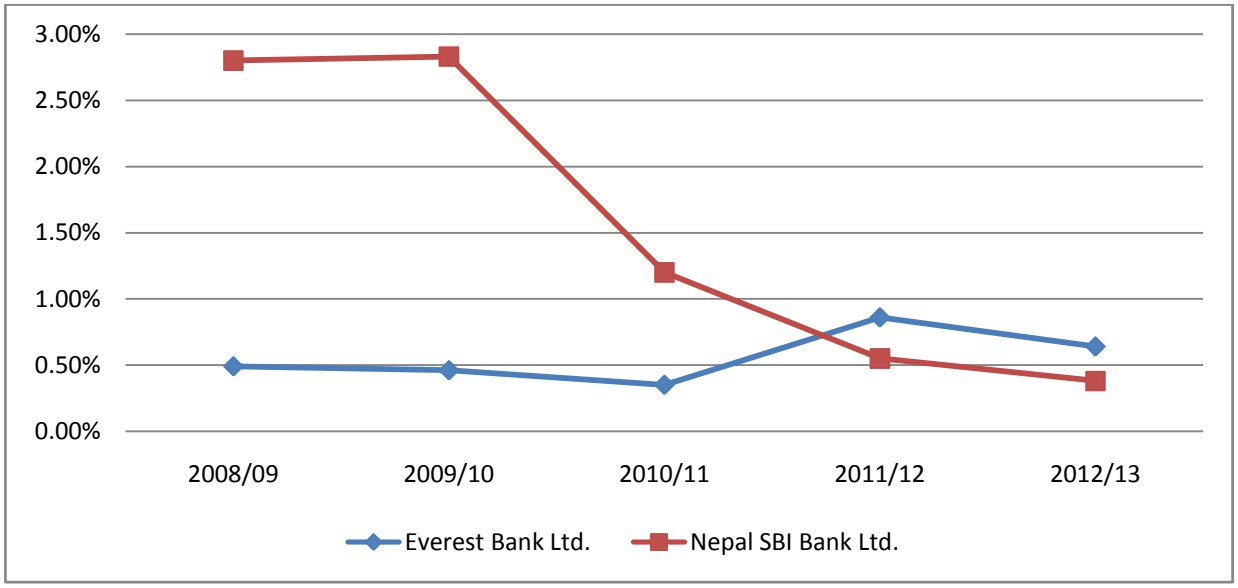
The table 4.3 shows the Non-performing loan to total loan over the five year study period. The ratio of EBL ranges highest of 0.86% and the lowest is 0.35% in FY 2011/12 and FY in 2010/11 respectively. Likewise the ratio of NSBL is highest of 2.83% and the lowest of 0.38% respectively in FY 2009/10 and 2012/13. The mean Non-performing loan to total loan of EBL and NSBL are 0.56% and 1.39% respectively. EBL

has the lowest non performing loan to total loan & advances , thus EBL is best performer than NSBL. By measuring coefficient of variation, EBL is more uniformity since it has 32% than NSBL with CV of 68%.

Banking sector is seriously affected by the non-performing loans. Sample banks are not far from this above fact. If non-performing loan increases, the overall banking business will be affected. So provision amount will get increased and profit will decrease. So, it is suggested that both the sample banks to be sincere while granting loan and to do effective follow up for recovery of non-performing loans.

Figure: 4.3

Non – performing Loan to Loans and Advance



4.1.4 Loan Loss Provision to Total Loan and Advance Ratio

Loan loss provision is mandatory because of Nepal Rasta Bank's Central bank, directives. Loan loss provision varies according to the nature of loan. Loan is

classified on the basis of time period. If loan is not paid in stipulated time then on the basis of time these loans are categorized into bad loan, loss loan, etc. to recover and to minimize the risk of ordinary depositors from banks mismanagement NRB has obliged commercial banks to form provision.

Loan lending is major function of commercial banks .Commercial banks have to lend deposit in the form of loan and advances. Obviously it is the major source of profit of the commercial banks. But it inherent risk too. This risk is due to bad motive of management of banks and even sometimes lenders approach with wrong intention .So banks have to be cautious in dealing with loan disbursement. Loan loss provision to total loan and advance ratio express the loan loss provision to total loan and advances. Higher the ratio implies that much of the fund of bank remained unproductive as reserve.

The Ratio is Calculated Using Following Formula

$$\text{LLP to Loan and Advance Ratio} = \frac{\text{Loan Loss Provision}}{\text{Total Loan and advances}} \times 100$$

Table: 4.4

Loan Loss Provision to Loan and Advance

(Rs. in millions)

Fiscal	EBL	NSBL

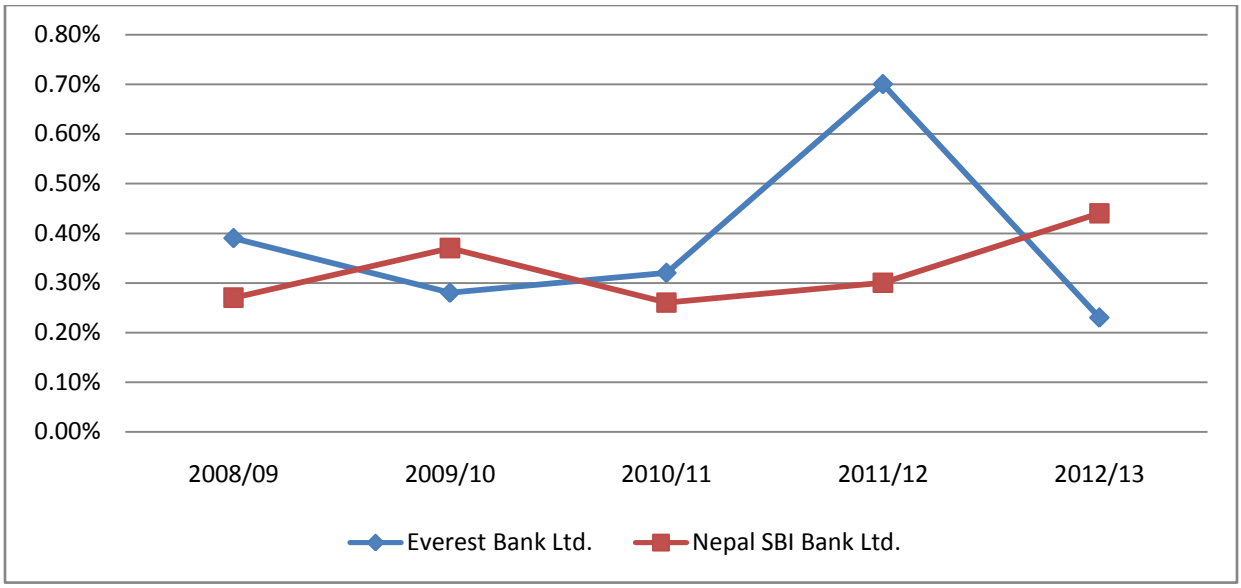
year	Loan loss provision	loan and advance	Ratio	Loan loss provision	loan and advance	Ratio
2008/09	93	23,884	0.39	40	15,131	0.27
2009/10	77	27,556	0.28	62	17,480	0.37
2010/11	98	31,057	0.32	55	21,365	0.26
2011/12	252	35,910	0.70	78	26,142	0.3
2012/13	98	43,393	0.23	128	28,788	0.44
Mean	**0.38**			**0.33**		
S.D.	**0.17**			**0.068**		
C.V.	**45%**			**21%**		

Source: Appendix i,ii,iii,iv,vii and viii

The table 4.4 shows the loan loss provision to total loan & advance ratio of selected commercial banks over the five year study period. The ratio of EBL is highest 0.70% in the fiscal year 2011/12 and lowest 0.23% in the fiscal year 2012/13. Average ratio of EBL is 0.38%. Likewise, this ratio of NSBL is highest 0.44% in the fiscal year 2012/13 and lowest 0.26% in the fiscal year 2010/11. It has mean ratio of 0.33%. Here, average loan loss provision to total loan ratio of EBL is highest than NSBL. This increased ratio indicates the increased volume of non-performing loans and vice versa. By measuring coefficient of variation, EBL is less uniformity since it has higher CV of 45% than NSBL i.e. 21%. It is also shown in the following figure.

Figure: 4.4

Loan Loss Provision to Loans and Advance



4.1.5. Loan Loss Provision to Non-Performing Loan

Loan loss provision is reserve created to save individual and households savings. Commercial banks have to maintain certain percentage as loan loss provision on the basis of the nature of loan. Higher the NPA higher the Loan loss Provision. If Loan loss provision is higher, it may curtail the performance of bank. If NPA is higher, it has to create higher loan loss provision. Higher loan loss provision is trained from its available funds which otherwise can be used as productive fund. The ratio of loan loss provision to NPA shows the relationship between them. What is its trend? Is it increasing or decreasing? The ratio is calculated using following formula:

$$\text{Loan Loss provision to Non performing Loan} = \frac{\text{Loan Loss Provision}}{\text{Non-performing Loan}} \times 100$$

Table: 4.5

Loan Loss Provision to Non-performing Loan

(Rs. in millions)

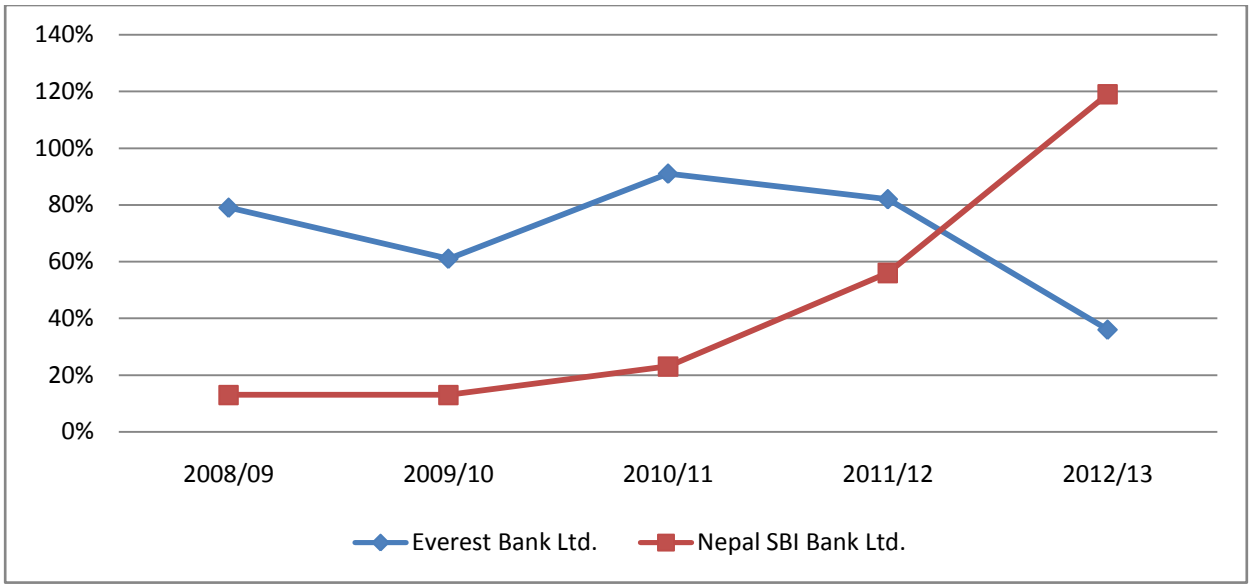
Fiscal year	EBL			NSBL		
	Loan loss Provision	non-performing loan	Ratio	Loan loss Provision	non-performing loan	Ratio
2008/09	93	117	78.89	40	315	12.70
2009/10	77	125	61.33	62	494	12.55
2010/11	98	108	90.59	55	239	23.01
2011/12	252	307	81.97	78	143	54.55
2012/13	98	276	35.77	128	108	118.52
Mean	**69.71**			**44.27**		
S.D.	**19.46**			**40.18**		
C.V.	**28.00%**			**91.00%**		

Source: Appendix ii.iv,v,vi,vii and viii

The table 4.5 presents the loan loss provision to non – performing loan ratio of EBL and NSBL during the last five fiscal years. The average LLP to NPL ratio is 69.71% and 44.27% for EBL and NSBL respectively. Loan loss provision to the Non-performing loan is directly related. As the NPL increases LLP also increases. Although the ratio is fluctuating, it remained somewhat near 50%. That means bank is trying to maintain the ratio constant at minimum. Likewise, Standard deviation for the EBL and NSBL are 19.46% and 40.18% respectively. Coefficient of variation indicates the fluctuating trend or measuring the uniformity of the banks which is 28% and 91% for EBL and NSBL respectively. From the five years analysis i.e. fiscal year 2008/09 to 2012/13 LLP to NPL ratio is highest of EBL which is 69.71% than NSBL. The analysis can be easily seen that the LLP to NPL of NSBL is more fluctuating as compared to EBL. It is also presented in following figure.

Figure: 4.5

Loan Loss Provision to Non-performing Loan



4.1.6 Net Profit to Total Loan and Advances

Net Profit reveals the performance of bank. It shows efficiency of management. It shows the capacity of management has been able to utilize deposits. Net profit increment plays vital role of the bank.

The ratio of net profit to total loan and advances reveals profit in comparison to total loan and advance disbursed. It is calculated using following formula

$$\text{Loan Loss provision to Non performing Loan} = \frac{\text{Net profit}}{\text{Loan and Advance}} \times 100$$

Table: 4.6

Net profit to Loan and Advance

(Rs. in millions)

Fiscal year	EBL			NSBL		
	net profit	Loan and advance	Ratio	net profit	Loan and advance	Ratio
2008/09	638	23,884	2.60	316	15,131	2.09
2009/10	831	27,556	3.01	391	17,480	2.24
2010/11	931	31,057	3.00	464	21,365	2.17
2011/12	1090	35,910	3.04	480	26,142	1.84
2012/13	1471	43,393	3.39	771	28,788	2.68
Mean	**3.008**			**2.20**		
S.D.	**0.26**			**0.27**		
C.V.	**9.00%**			**12.00%**		

Source: Appendix i,ii,iii,iv,vii and viii

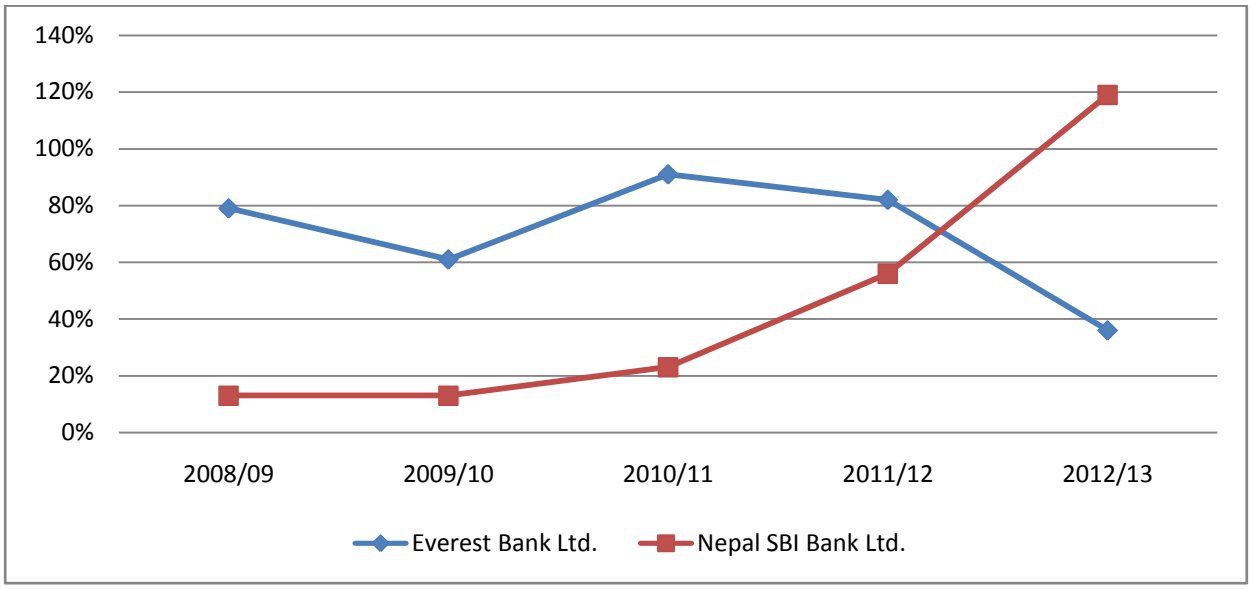
Above table 4.6 shows that the ratio of net profit on loan and advance Nepal SBI Bank Ltd. are 2.09%, 2.24%, 2.17%, 1.84% and 2.68% in the year 2008/09, 2009/10, 2010/11, 2011/12 and 2012/13 respectively. Standard deviation and the coefficient of variations are 0.27% and 12.00 percent respectively.

Net profit to loan and advance of Nepal SBI Bank Ltd. are 2.60%, 3.01%, 3.00%, 3.04% and 3.39% in the year 2008/09, 2009/10, 2010/11, 2011/12 and 2012/13. Standard deviation and the coefficient of variations are 0.26% and 9.00 percent respectively.

The total average net profit loan and advance of NSBL is 2.20% and the net profit assets of EBL is 3.008%. Higher the ratio means the better earning position, Net profit on loan and advance of EBL is better than NSBL. By measuring coefficient of variation, EBL is more uniformity since it has 9.00% than NSBL with CV of 12.00%. It is also presented in following figure.

Figure: 4.6

Net profit to Loan and Advance



4.2 Correlation

Correlation defines two or more variables are correlated with each other or not. The correlation between variables varies from -1 to 0 to +1. If two variables are inversely correlated then they have negative correlation, whereas if they are highly correlated or proportionately correlated then they have positive value. If value is between 0.7 and 1, then they are highly correlated.

For the purpose of decision-making interpretation of the result is based upon following conditions:

When r = 1, there is perfect positive correlation

When r = -1, there is perfect negative correlation

When r = 0, there is no correlation

When r lies from 0.7 to 0.999 (-0.7 to -0.999), there is a high degree of positive (or negative) correlation.

When r lies from 0.5 to 0.6999, there is moderate degree of correlation.

When r is less than 0.5, there is low degree of correlation.

4.2.1 Correlation between Loan and Advances and Total Deposit

The relationship between the total loan and total deposit is of great significant, as it indicates the direction taken by the total loan with the changes in the volume of total deposit. A bank will be unable to provide large volumes of loan if it does not receive adequate and sufficient deposits in a timely basis. The following table shows the correlation coefficient between the total credit and total deposits denoted by r. "r" indicates the coefficient of determination, t_{cal} and t_{tab} refers to calculated value of t-statistic and tabulated value of t-statistic at 5% level of significance at 3 degree of freedom respectively. The following results are worth highlighting.

Table: 4.7

correlation between loan & advance and total deposit

Name of Bank	r	r^2	$t_{cal.}$	$t_{tab.}$	Result
EBL	0.9945	0.9890	16.40	3.182	Significant
NSBL	0.9954	0.9908	17.95	3.182	Significant

Source: Appendix-ix and x

The table 4.7 clearly highlights the relationship between the total Loan and the total deposit received. The positive relationship shown by their correlation coefficient points out the fact that the changes in each variable are taking place in the same direction, i.e., an increase in total loan is supported by an increase in the total deposit. This positive relationship is highly significant as the banks won't be able to sustain for a longer period if any one of these variables do not increase or decrease with one another. The calculated value t_{cal} of both sample banks i.e. EBL and NSBL (16.40 and 17.95) is greater than tabulated "t" at 5% significance level at 3 degree of freedom for two tailed test (3.182). It indicates that there is significant difference between total loan and total deposit of EBL and NSBL.

4.2.2 Correlation between Loan and Advances and loan loss provision

The relationship between the loan and advance with the loan loss provision of the samples banks it tries to analyze whether the loan and advance and loan loss provision of the banks are moving in the same direction or not. The following table shows the correlation coefficient between the current assets and net working capital denoted by r. "r^2" indicates the coefficient of determination, t_{cal} and t_{tab} refers to calculated value of t-statistic and tabulated value of t-statistic at 5% level of significance at 3 degree of freedom two tailed test for respectively. The following results are worth highlighting.

Table: 4.8

Correlation between loan & advance loan loss provision

Name of Bank	r	r^2	$t_{cal.}$	$t_{tab.}$	Result
EBL	0.31	0.0961	0.564	3.182	Significant
NSBL	0.8817	0.7774	3.23	3.182	Significant

(Source: Appendix-xi and xii)

The table above 4.8 clearly highlights the relationship between the loan and advance and loan loss provision by the EBL and NSBL. The low degree of positive relationship shown by correlation coefficient of EBL pointed out the fact that an increase in loan and advance has resulted in low increase in the loan loss provision. On the other hands, NBBL has positive correlation coefficient between loan and advance and loan loss provision pointed out the fact that increase in loan and advance has resulted in an increase in loan loss provision and vice-versa. In the context of significant relationship a few inferences can be made. The calculated value t_{cal} of EBL i.e. 0.564 is less than tabulated "t" at 5% significance level at 3 degree of freedom for two tailed test (3.182) . Since, the calculated value of t is greater than tabulated "t" value, null hypothesis is rejected and H_1 is accepted. Likewise, the calculated value t_{cal} of NSBL i.e. 3.23 more than tabulated "t" at 5% significance level at 3 degree of freedom for two tailed test (3.182). Thus, we conclude that there is significant relation between loan and advance and loan loss provision of NSBL whereas insignificant in case of EBL.

4.2.3 Correlation between Loan and Advances and non-performing loan

The relationship between the total loan and total non-performing loans indicates the volume of non-performing loans raised from the total credit granted. This suggests the volume and chances of loans being default or not paid by the clients are of significant value or not. The following table shows the correlation coefficient between the total credit and total nonperforming loans denoted by r. "r" indicates the coefficient of determination, t_{cal} and t_{tab} refers to calculated value of t- statistic and tabulated value of t-statistic at 5% level of significance at 3 degree of freedom respectively. The following results are worth highlighting.

Table: 4.9

Correlation between loan & advance and non-performing loan

Name of Bank	r	r^2	$t_{cal.}$	$t_{tab.}$	Result
EBL	0.8181	0.6693	2.46	3.182	insignificant
NSBL	(0.8340)	0.6956	- 2.615	3.182	insignificant

(Source: Appendix-xiii and xiv)

Table 4.9 presents the correlation coefficient between total loan and total non-performing loans of the EBL and NSBL. As depicted by the figures above, the correlation between these two variables is highly negative of NSBL, which means, they are moving in the opposite direction. The negative relationship points out the fact that an increase in non-performing loans leads to a decrease in total volume of loan. This is bad news as the banks‟ capacity to provide loans would decline if more credits granted resulted in non-performing ones. This would result in a huge loss for the bank. In contrast to EBL, the correlation between these two variables is positive of EBL, which means, they are moving in the same direction. The positive relationship points out the fact that an increase in non-performing loans leads to a increase in total volume of loan. However, if the volume of loans being default decreases with the increase in the volume of loan provided, this denotes the effective handling of loans and efficient handling of non-

performing loans by the credit department. It also suggests that the staffs of the credit department have a quick learning curve when it comes to handing non-performing loans and credit. By testing t- statistic, The calculated value t_{cal} of EBL and NSBL (2.46 and -2.615 is less than tabulated "t" at 5% significance level at 3 degree of freedom for two tailed test (3.182). It indicates that correlation coefficient between loan and advances and total non-performing loan of EBL and NSBL is insignificant . It probably means that the volume of loan being default does significantly depend upon the volume of the loan provided only. There may be several other reasons for the loans being default.

4.3 Trend Analysis

Trend analysis is done to predict the future scenario. This analysis is very important for business. Business environment is more complex and dynamic than ever before so firms want to know will- be scenario. This scenario helps to build strategies and tune to the unseen changes in the economy. So this statistical tool helps businessmen to estimate future. The estimation is based upon past data or information Among various methods of estimating trend the least square method is used in this research. In this method trend line is fitted to the data satisfying following two conditions:

4.3.1 Least Square of Linear Trend of Loan and advance

Loans are the major source of income for a bank. If it defaults, it is the loan portfolio which may lead to the insolvency of the bank. Here the effort has been made to calculate the trend values of loans and advances of the Bank for further five years from 2013/14 to 2017/18 on the basis past data from 2008/09 to 2012/13.

Table: 4.10

Least Square of Linear Trend of Loan and advance

(Rs. In millions)

		Forecasted					
Name	a	b	2013/14	2014/15	2015/16	2016/17	2017/18
EBL	32,360	4,737	46,572	51,309	56,046	60,783	65,520
NSBL	21,787	3,591	32,560	36,151	39,742	43,333	46,924

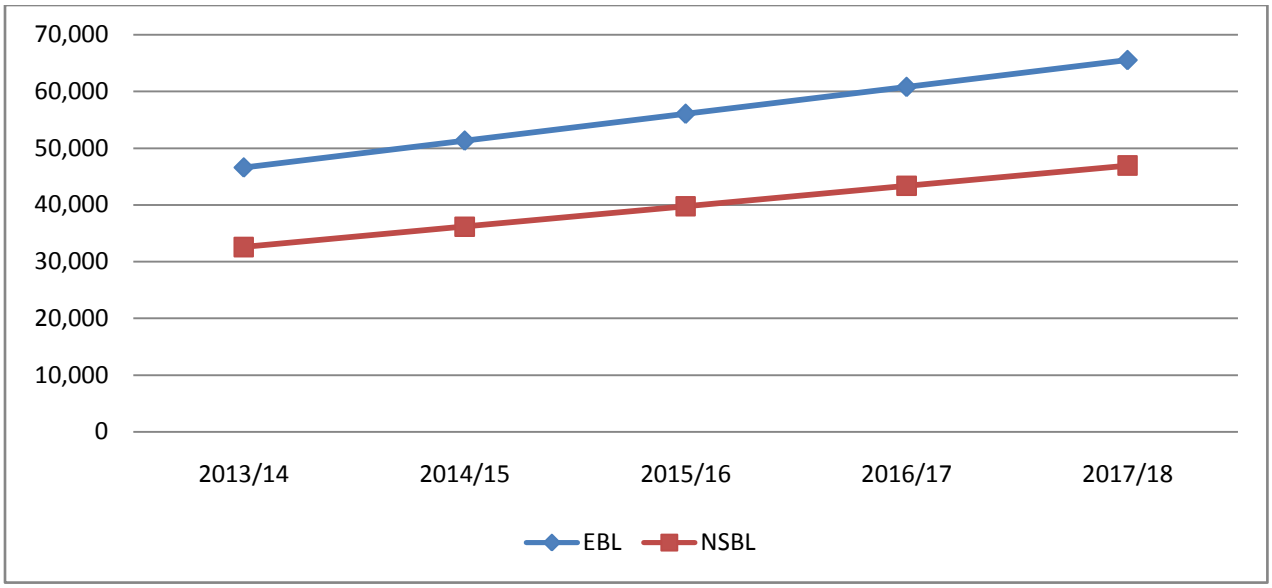
(Source: Appendix xv)

The table 4.10 deals with the trend of total loan maintained by the respective banks for the next five years. The table presents the forecast of the banks total loan from the FY2013/14 to FY 2017/18. As already given by their regression equation, the average total loan maintained by the banks, EBL and NSBL are Rs. 32,360 million and 21,787 million respectively, with other things remaining unchanged. However, the slope of the equation, that usually shows the rate of change in the value, reveals two different directions of the banks. Both banks i.e. EBL and NSBL has a positive rate of 4,737 million and Rs. 3,591 million which denotes that with every unit change in the year, the value of total loan will increase by additional 4,737 million and Rs 3,591 million respectively. On the basis of previous five years data, the forecasted total loan for next five years from fiscal year 2013/14 to 2017/18 of the EBL and NSBL are directly computed in the above table 4.10. This trend is more clearly understood from the following figure.

Figure: 4.7

Loan and advance Trend of Bank

(Rs. In millions)



4.3.2 Least Square of Linear Trend of Net Profit

Under this topic, the trend values of net profit for 5 years from 2008/09 to 2012/13 is calculated and forecasted for next 5 years 2013/14 to 2017/18.

Table: 4.11

Least Square of Linear Trend of Net profit

(Rs. In millions)

		Forecasted					
Name	a	b	2013/14	2014/15	2015/16	2016/17	2017/18
EBL	992.2	192.5	1,570	1,762	1,955	2,147	2,340
NSBL	484.8	99.8	784	884	984	1,084	1,183

(Source: Appendix xvi)

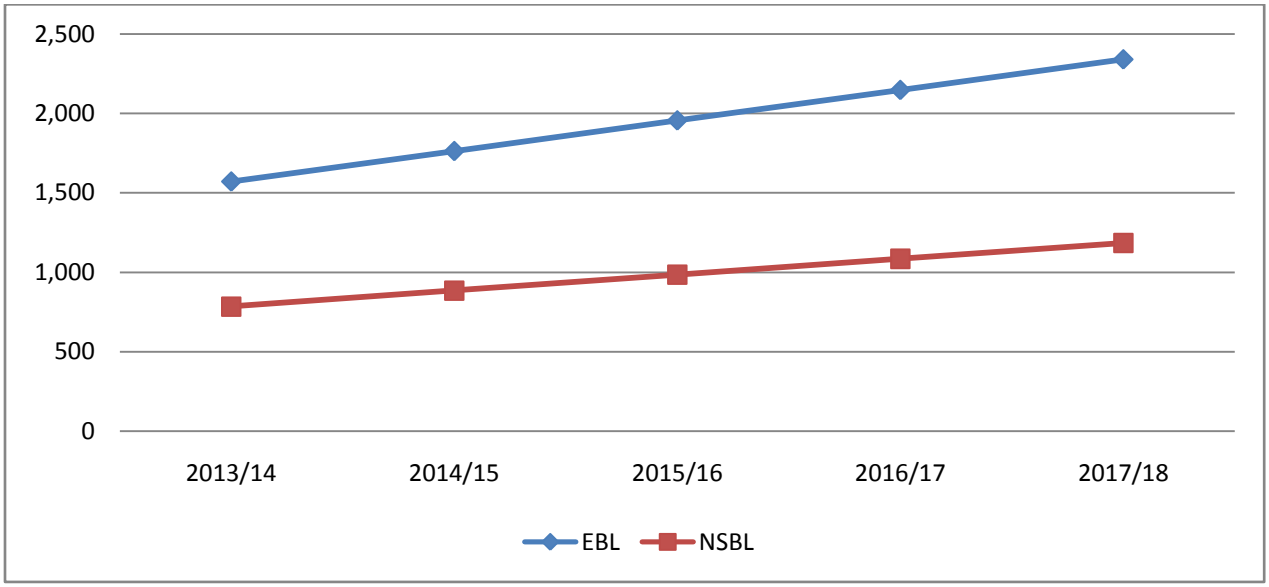
The table 4.11 deals with the trend of net profit after tax maintained by the respective banks for the next five years. The table presents the forecast of the bank's net profit after tax from the FY 2013/14 to FY 2017/18. As already given by their regression equation, the average net profit after tax maintained by the banks, EBL and NSBL are Rs. 992.2 million and 484.8 million respectively, with other things remaining unchanged. However, the slope of the equation, that usually shows the rate

of change in the value, reveals two different directions of the banks. EBL has a positive rate of 192.5 million which denotes that with every unit change in the year, the value of the net profit after tax will increase by additional 192.5 million. Whereas, in case of NSBL, the value of this rate of change will increased by 99.8 million, with reveal the increasing trend of the bank in maintaining the net profit after tax volume. On the basis of previous five years data, the forecasted net profit after tax for next five years from fiscal year 2013/14 to 2017/18 of the EBL and NSBL are directly computed in the above table 4.11. This trend is more clearly understood from the following figure.

Figure: 4.8

Net Profit Trend of Bank

(Rs. In millions)



4.3.3 Least Square of Linear Trend of Loan loss provision

Here, the trend values of loss loan provision have been calculated for 5 years FY 2008/09 to FY 2012/13 and forecasting for the next 5 years till FY 2017/18.

Table: 4.12

Least Square of Linear Trend of Loan loss provision

(Rs. In millions)

		Forecasted					
Name	a	b	2013/14	2014/15	2015/16	2016/17	2017/18
EBL	123.6	18.5	178	198	216	235	253
NSBL	72.6	19.2	130	149	169	188	207

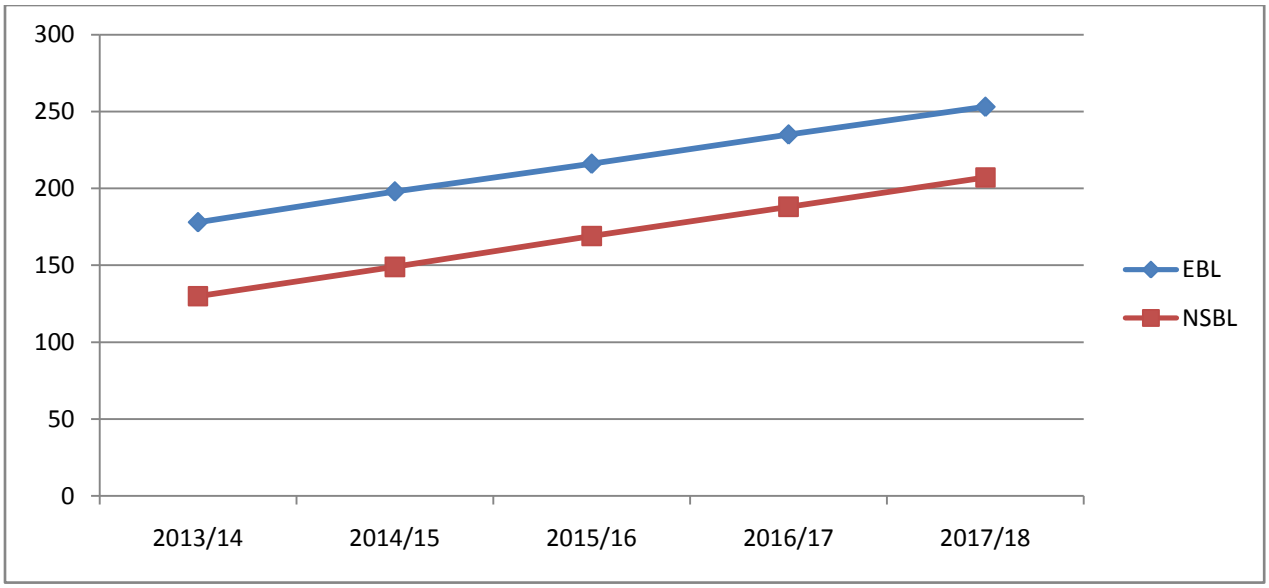
(Source: Appendix xvii)

The table 4.12 deals with the trend of loan loss provision maintained by the respective banks for the next five years. The table presents the forecast of the banks total loan from the FY2013/14 to FY2017/18. As already given by their regression equation, the average loan loss provision maintained by the banks, EBL and NSBL are Rs. 123.6 million and 72.6 million respectively, with other things remaining unchanged. However, the slope of the equation, that usually shows the rate of change in the value, reveals two different directions of the banks. Both banks i.e. EBL and NSBL has a positive rate of 18.5 million and Rs. 19.2 million which denotes that with every unit change in the year, the value of total loan will increase by additional Rs. 18.5 million and Rs. 19.2 million respectively. On the basis of previous five years data, the forecasted total loan for next five years from fiscal year 2013/14 to 2017/18 of the EBL and NSBL are directly computed in the above table 4.12. This trend is more clearly understood from the following figure.

Figure: 4.9

Trend of loan loss provision

(Rs. In millions)



4.3.4 Trend Analysis of Non-performing Loan

Here, the trend values of non-performing loans have been calculated for 5 years FY 2008/09 to FY 2012/13 and forecasting for the next five year till FY 2017/18. NPL reduces and hinders the performance of bank. It also reduces the credibility of bank. So banks have to reduce NPL to increase productivity and profitability. Trend of NPL of banks is estimated below:

Table: 4.13

Least Square of Linear Trend of non-performing loan

(Rs. In millions)

		Forecasted					
Name	a	b	2013/14	2014/15	2015/16	2016/17	2017/18
EBL	186.6	50	336.6	386.6	436.6	486.6	536.6
NSBL	259.8	-76.5	30.3	- 46.2	- 122.7	- 199.2	- 275.7

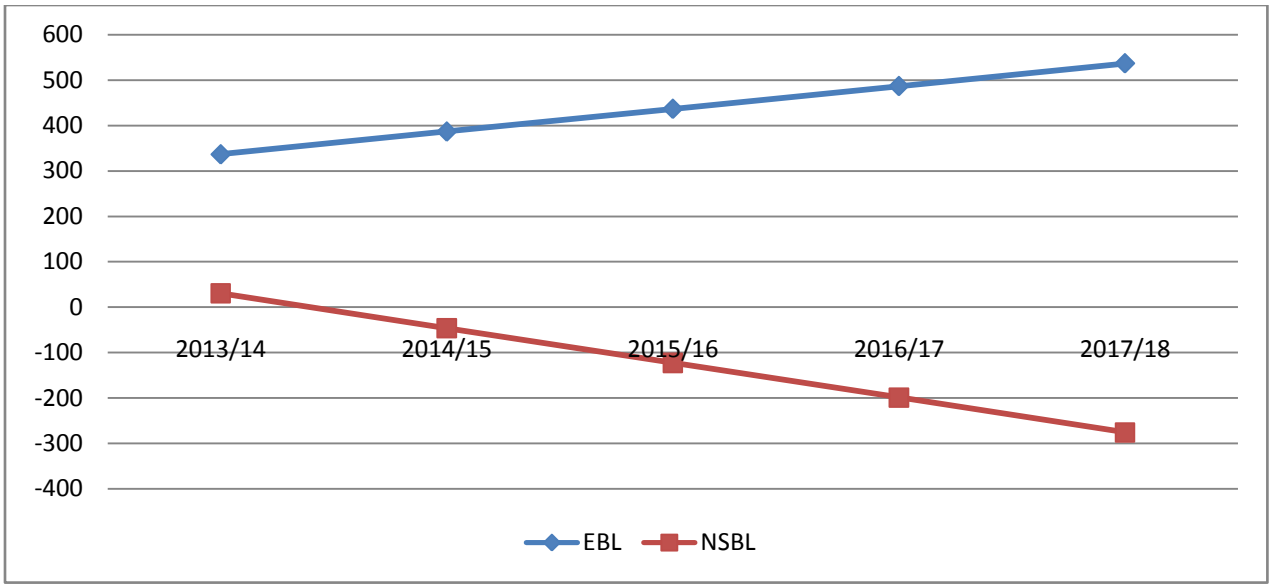
(Source: Appendix xviii)

The table 4.13 deals with the trend of non-performing loan maintained by the respective banks for the next five years. The table presents the forecast of the bank's non-performing loan from the FY 2013/14 to FY 2017/18. As already given by their regression equation, the average non-performing loan maintained by the banks, EBL and NSBL are Rs. 186.6 million and 259.8 million respectively, with other things remaining unchanged. However, the slope of the equation, that usually shows the rate of change in the value, reveals two different directions of the banks. EBL has a positive rate of 50 million which denotes that with every unit change in the year, the value of the net profit after tax will increase by additional 50 million. Whereas, in case of NSBL, the value of this rate of change will decreased by (76.5) million, with reveal the decreasing trend of the bank in maintaining the non – performing loan volume. On the basis of previous five years data, the forecasted non – performing loan for next five years from fiscal year 2013/14 to 2017/18 of the EBL and NSBL are directly computed in the above table 4.13. This trend is more clearly understood from the following figure.

Figure 4.10

Trend of Non- Performing Loan

(Rs. In millions)



4.4 Major Findings

Major findings of the study are as follows:

- In average comparison, EBL Bank has utilized its total deposits better in consecutive years. Likewise, the mean ratio of EBL and NSBL are 73.76% and 51.35% respectively. . Higher loan and advance to total deposit ratio shows higher risk and higher turnover. So, EBL has invested their deposit more in loan and advance to earn higher profit. By coefficient variation analysis, EBL bank has more uniformity than NSBL since EBL has less CV of 2%.
- Total loan to total assets ratio of EBL ranges the highest of 67.17% in the fiscal year 2010/11, and the lowest of 59.60% in the fiscal year 2009/10. Likewise, the ratio of NSBL is highest of 50.16% in the fiscal year 2008/09 and the lowest of 44.43% in the fiscal year 2012/13 respectively. The mean ratio of EBL is 64.36% which is higher than NSBL i.e. 47.18%. It can be concluded that the higher mean ratio indicates the good lending performance. By measuring coefficient of variation, EBL is more uniformity than NSBL since EBL has lesser CV of 4.00% than that of NSBL i.e. 5.10%. Here, EBL and NSBL should focus to increase loan to total assets ratio to increase lending performance.

- The loan loss provision to total loan & advance ratio of EBL is highest 0.70% in the fiscal year 2011/12 and lowest 0.23% in the fiscal year 2012/13. Average ratio of EBL is 0.38%. Likewise, this ratio of NSBL is highest 0.44% in the fiscal year 2012/13 and lowest 0.26% in the fiscal year 2010/11. It has mean ratio of 0.33%. Here, average loan loss provision to total loan ratio of EBL is highest than NSBL. This increased ratio indicates the increased volume of non-performing loans and vice versa. By measuring coefficient of variation, EBL is less uniformity since it has higher CV of 45% than NSBL i.e. 21%.
- The ratio of EBL ranges highest of 0.86% and the lowest is 0.35% in FY 2011/12 and FY in 2010/11 respectively. Likewise the ratio of NSBL is highest of 2.83% and the lowest of 0.38% respectively in FY 2009/10 and 2012/13. The mean Non-performing loan to total loan of EBL and NSBL are 0.56% and 1.39% respectively. EBL has the lowest non performing loan to total loan & advances , thus EBL is best performer than NSBL. By measuring coefficient of variation, EBL is more uniformity since it has 32% than NSBL with CV of 68%.
- The average LLP to NPL ratio is 69.71% and 44.27% for EBL and NSBL respectively. Loan loss provision to the Non-performing loan is directly related. As the NPL increases LLP also increases. Although the ratio is fluctuating, it remained somewhat near 50%. That means bank is trying to maintain the ratio constant at minimum. Likewise, Standard deviation for the EBL and NSBL are 19.46% and 40.18% respectively. Coefficient of variation indicates the fluctuating trend or measuring the uniformity of the banks which is 28% and 91% for EBL and NSBL respectively. From the five years analysis i.e. fiscal year 2008/09 to 2012/13 LLP to NPL ratio is highest of EBL which is 69.71% than NSBL. The analysis can be easily seen that the LLP to NPL of NSBL is more fluctuating as compared to EBL.

- The ratio of net income to total loans and advances shows how efficiently bank has through its lending activities. The total average net profit loan and advance of NSBL is 2.20% and the net profit assets of EBL is 3.008%. Higher the ratio means the better earning position, Net profit on loan and advance of EBL is better than NSBL. Coefficient of variation indicates the fluctuating trend or measuring the uniformity of the banks which is 9% and 12% for EBL and NSBL respectively. NSBL has more risky that is higher CV than EBL.
- There is highly relationship between the total Loan and the total deposit of both banks. The calculated value t_{cal} of both sample banks i.e. EBL and NSBL (16.40 and 17.95) is greater than tabulated "t" at 5% significance level at 3 degree of freedom for two tailed test (3.182). It indicates that there is significant difference between total loan and total deposit of EBL and NSBL.
- There is positive relationship between loan and advance and non-performing loan of EBL but the negative relationship between loan and advance and non-performing loan in case of NSBL. The calculated value t_{cal} of EBL and NSBL (2.46 and -2.615 is less than tabulated "t" at 5% significance level at 3 degree of freedom for two tailed test(3.182). It indicates that correlation coefficient between loan and advances and total non-performing loan of EBL and NSBL is insignificant .
- There is positive relationship between the total loan and loan loss provision of both banks. The calculated value t_{cal} of both sample banks i.e. EBL i.e. 0.564 is less than tabulated "t" at 5% significance level at 3 degree of freedom for two tailed test (3.182). It indicates that there is insignificant difference between non-performing loan and loan loss provision of EBL, Likewise, in case of NSBL the calculated value t_{cal} i.e. 3.23 more than tabulated "t" at 5% significance level at 3 degree of freedom for two tailed test (3.182). Thus, we conclude that there is significant relation between loan and advance and loan loss provision of NSBL
- The average total loan maintained by the banks, EBL and NSBL are Rs. 32,360 million and 21,787 million respectively, with other things remaining unchanged. Both banks i.e. EBL and NSBL has a positive rate of

4,737 million and Rs. 3,591 million which denotes that with every unit change in the year, the value of total loan will increase by additional 4,737 million and Rs 3,591 million respectively.

- The average net profit maintained by the banks, EBL and NSBL are Rs. 992.2 million and 484.8 million respectively, with other things remaining unchanged. Both banks i.e. EBL and NSBL has a positive rate of 192.5 million and Rs. 98.8 million which denotes that with every unit change in the year, the value of net profit will increase by additional 192.5 million and Rs 98.8 million respectively.
- The average loan loss provision maintained by the banks, EBL and NSBL are Rs. 123.6 million and 72.6 million respectively, with other things remaining unchanged. Both banks i.e. EBL and NSBL has a positive rate of 18.5 million and Rs. 19.2 million which denotes that with every unit change in the year, the value of loan loss provision will increase by additional 18.5 million and Rs 72.6 million respectively.
- The average non – performing loan maintained by the banks, EBL and NSBL are Rs. 186.6 million and 259.8 million respectively, with other things remaining unchanged. EBL has a positive rate of 50 million which denotes that with every unit change in the year, the value of the non-performing loan will increase by additional 5 million. Whereas, in case of NSBL, the value of this rate of change will decreased by 76.5 million, with reveal the decreasing trend of the bank in maintaining the non – performing loan volume.

CHAPTER –V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This research attempts to analyze the NPL and their effects in the performance of bank. This chapter is final chapter. It includes summary, conclusion and recommendation. Summary and conclusion of the study is presented in the first section. The second section has been design for the recommendation.

5.1 Summary

All know that collection of deposits and making of loan and advances are core functions of banks and financial institutions. While collecting the deposits the bank
has to provide interests to the depositors, it is cost to the banks. The money collected in the form of deposit is again translated into loans and advances and banks get interests income. On this transformation process bank have a small interests spread from which they have to meet the operating expenses, costs of the bad debt and a small profit margins. In order to pay the interests to the depositors and meet the withdrawals of depositors, there should be regular repayments of principle and interests of loan from the borrowers as per as agreed schedule. In order to make this system interrupted, banks should have all the loans as performing assets, i.e. good loans. Banks and financial institutions always try to have almost all the financial assets as performing assets, i.e. good loans. Good loans and advances are called performing assets. Banks and financial institutions always try to have almost all the financial assets as performing assets to make them sound, sustainable, profitable and healthy within the system. Sometimes, unfavorable internal economic shocks and other discrepancies affect quality of such assets. Deterioration in the quality and other assets, give birth
to non- performing loans and ultimately invites the financial crisis.

The successful working of the bank depends on ability of the management to distribute the funds among the various kind of investment known as loans and advances. Loan and advances are the most profitable assets of a bank. These assets constitute primary sources of income to the bank. As being a business institution, a bank aims at making huge profit. Since loans and advances are more profitable than any other assets of the banks, it is willing to lend as much as its funds as possible but banks have to be careful about the repayment of loan interest before giving loan.

For the detail analysis of commercial banks in Nepal, in this study, Everest Bank Ltd. and Nepal SBI Bank Ltd. For the analysis of data, mainly this study focuses non-performing loan, ratio analysis and their relations. On an average of five years of research period, credit and advances to total deposit ratio of Everest Bank Limited and Nepal SBI Bank are 73.76 and 51.35 percent respectively. Likewise Everest Bank Ltd. and Nepal SBI Bank and Everest Bank have loan and advances to total assets ratio for the five years of research periods are 64.36 and 47.18 percent respectively. At the same time, the average loan and advance to current assets ratio for the five years research period of Everest Bank Ltd. and Nepal SBI Bank Ltd. are 66.47 and 54.63 percent respectively. This indicates that assets are increasing regularly in the research period. The non- performing loan ratio and loan loss provision ratio are not so high of both bank and generating lower credit risk which is good sign for any banks.

Basically, research methodologies here signifies the research design, sources of data, data collection technique, data collection methods and tools and techniques employed etc. for this purpose descriptive cum analytical research design was adopted. Out of total population of 31 commercial banks, two banks are taken as sample using judgmental sampling method. Here two major banks EBL and NSBL is selected from private sector banks. Annual reports and other publications from the

basis of secondary data are used. Besides this newspaper, relevant thesis, journals, articles, related websites etc are also used for this research. The data collected from various sources are recorded systematically and presented in the appropriate forms of the tables, charts and appropriate mathematical, statistical, financial, graphical tools have been applied to analyze the data. The data of the five consecutive years of selected banks have analyzed to meet the objectives of the study.

5.2 Conclusions

From the study of various variables like NPL, LLP, Total Loan and Advances, Total Deposit, Net profit and their relation with each other in the form of ratio, correlation and trend has shown satisfactory performance of two banks.

In average comparison, EBL has utilized its total deposits better in consecutive years. Likewise, the mean ratio of total loan to total deposit of EBL and SNBL are 73.76% and 51.35% respectively. By coefficient variation analysis, EBL bank has more uniformity than NSBL since EBL has less CV of 2%. The average loan to total ratio of EBL is 64.36% which is higher than NSBL i.e. 47.18%. It can be concluded that the higher mean ratio indicates the good lending performance. The loan loss provision ratio of NSBL is highest than EBL. This increased ratio indicates the increased volume of non-performing loans and vice versa. The mean Non-performing loan to total loan of EBL and NSBL are 0.56% and 1.39% respectively. EBL has the lowest non performing loan to total loan & advances , thus EBL is best performer than NSBL. But NSBL NPL to total loan is decreasing trend over the study period this is good sign for the bank. The total average net profit loan and advance of NSBL is 2.20% and the net profit assets of EBL is 3.008%. It means the better earning position of EBL than NSBL. Form coefficient of variation indicates the fluctuating trend or measuring the uniformity of the banks which is 9% and 12% for EBL and NSBL respectively. NSBL has more risky that is higher CV than EBL. By measuring coefficient of variation, NSBL is more fluctuating than EBL. By correlation coefficient

there is highly positive relationship between total loan and total deposit between of both banks i.e. EBL and NSBL. The calculated value t_{cal} of both sample banks i.e. EBL and NSBL (16.40 and 17.95) is greater than tabulated "t" at 5% significance level at 3 degree of freedom for two tailed test (3.182). It indicates that there is significant difference between total loan and total deposit of EBL and NSBL. Then positive relationship between loan and advance and non-performing loan of EBL but the negative relationship between loan and advance and non-performing loan in case of NSBL. The calculated value t_{cal} of EBL and NSBL (2.46 and -2.615 is less than tabulated "t" at 5% significance level at 3 degree of freedom for two tailed test (3.182). It indicates that correlation coefficient between loan and advances and total non-performing loan of EBL and NSBL is insignificant . By trend analysis of total loan, net profit, loan loss provision are increasing trend but trend analysis of non- performing loan in case of NSBL is decreasing trend. This trend is good sign for the bank in future.

5.3 Recommendations

On the basis of findings and analysis following recommendation are proposed to both banks to perform better:

- NPL erodes the performance of commercial banks. It reduces profitability because of LLP. This LLP will reduce banks fund for productive sector. NPL of NSBL is decresing trend so it is better to continue that trend and In case of EBL, the trend is increasing so it has to make effort to adverse the trend.
- Lending loan and advance to various lenders is major function of commercial banks. But NSBL has not lent its deposit as loan and advances in compare to EBL. NSBL can increase the lending proportion so that the profit of the bank may increase.
- In the spite of higher total assets of EBL than NSBL, the average ratio of Net profit to total assets of NSBL is lower than EBL. So NSBL has to increase net profit by maintaining with the increment with the investment sector.

- The main factors which lead to NPL are improper credit appraisal system, ineffective credit monitoring and supervision system etc. besides that negligence in taking information from Credit Information Bureau may also lead to bad debts. Hence all banks are recommended to be more careful and realistic while granting loan and advances. After advancing loan there should be regular supervision and follow up for proper utilization of loan.
- Trend analysis shows that the Loan and Advance amount of EBL and NSBL will increase in future so banks have to train its employee to make efficient and professional in credit appraisal, monitoring and proper risk management.
- Banks have to adhere to the guideline of central bank to reduce the amount of NPL and also to increase accountability and credibility of bank.

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APPENDIX - I

BALANCE SHEET OF EVEREST BANK LTD.

(Rs. In Thousans)

LIABILITIES	**2008/09**	**2009/10**	**2010/11**	**2011/12**	**2012/13**
Share Capital	838,821	1,279,607	1,391,570	1,761,126	1,921,239
Reserves and funds	1,364,804	1,479,530	1,721,975	2,416,176	2,906,605
Debenture & Bonds	300,000	300,000	300,000	-	468,845
Borrowings	312,000	404,600	482,000	-	402,360
Deposits	33,322,946	36,932,310	41,127,914	50,006,100	57,720,464
Bills payable	148,655	145,514	49,716	692,398	393,056
Proposed dividend	230,524	276,252	576,897	306,468	820,190
Income tax liabilities	20,522	(1,136)	26,900	929,707	23,932
Other liabilities	378,574	566,081	559,237	897,383	1,084,456
Total liabilities	**36,916,848**	**41,382,760**	**46,236,212**	**55,813,129**	**65,741,150**
ASSETS	**2008/09**	**2009/10**	**2010/11**	**2011/12**	**2012/13**
Cash balance	944,695	1,091,500	1,048,998	170,0991	1,723,208
Balance with NRB	4,787,163	5,625,113	4,706,320	8,159,753	8,205,090
Balance with bank and other financial institution	432,511	1,102,200	367,543	502,561	1,287,494
Money at call and short notice	-	-	-	-	-

Investment	5,948,480	5,008,307	7,743,928	7,863,627	9,263,858
Loans, Advances & B.P	23,884,673	27,556,356	31,057,691	35,910,974	43,393,187
Fixed assets	427,157	463,094	460,258	547,925	631,182
Non banking assets	-	-	-	-	-
Other assets	492,160	536,187	851,470	1,127,295	1,237,128
Total assets	**36,916,848**	**41,382,760**	**46,236,212**	**55,813,129**	**65,741,150**

APPENDIX - II

PROFIT AND LOSS ACCOUNT OF EVEREST BANK LTD.

(Rs. In Thousans)

Particulars	**2008/09**	**2009/10**	**2010/11**	**2011/12**	**2012/13**
Interest Income	2,186,814	3,102,451	4,331,036	4,959,998	4,936,924
Interest Expenses	1,012,874	1,572,790	2,535,875	2,873,334	2,179,182
Net Interest Income	**1,173,940**	**1,529,661**	**1,795,150**	**2,086,663**	**2,757,741**
commission and Discount	202,940	208,123	203,468	233,569	266,820
Other Operating Income	106,403	142,311	148,061	179,822	249,385
Exchange Fluctuation Income	62,526	47,879	46,259	109,679	98,905
Total operating Income	**1,544,695**	**1,927,976**	**2,192,940**	**2,609,735**	**3,372,853**
Staff Expenses	186,919	226,364	293,130	352,050	461,809
Other Operating Expenses	292,010	352,511	383,112	467,292	509,487
Exchange Fluctuation Loss	-	-	-	-	-
Operating profit before Provision for Possible Loss	**1,066,035**	**1,349,100**	**1,516,697**	**1,790,392**	**2,401,556**
Provision for Possible Losses	(93,084)	(77,010)	(98,299)	252,054	98,807

Operating Profit	**972,950**	**1,272,090**	**1,418,397**	**1,538,338**	**2,302,748**
Non-operating Income/loss	5,005	12,338	1,433	25,155	8,336
Provision for Possible loss written back	8,044	83,553	56,337	150,348	88
Profit from Regular Operation	**985,999**	**1,367,982**	**1,476,168**	**1,713,842**	**2,311,173**
Profit/loss from extra-ordinary Activities	(5549)	(61,192)	(12,051)	-	(88)
Net profit after All Activities	**980,450**	**1,306,790**	**1,464,117**	**1713842**	**2,311,085**
Provision for staff Bonus	89,131	118,799	133,101	155,803	210,098
Provision for Income Tax					
* Current year's	276,864	357,020	427,531	478,355	655,436
* Previous	(24,278)	-	560	-	106
Deferred tax	-	(794)	(28,380)	(10,881)	(25673)
Net Profit/Loss	**638,732**	**831,765**	**931,303**	**1,090564**	**1,471117**

APPENDIX – III

BALANCE SHEET OF NEPAL SBI BANK LTD.

(Rs. In Thousans)

LIABILITIES	**2008/09**	**2009/10**	**2010/11**	**2011/12**	**2012/13**
Share Capital	874,527	1,861,324	2,102,966	2,355,738	2,650,205
Reserves and funds	838,079	589,229	776,326	841,720	1,148,751
Debenture & Bonds	200,000	200,000	200,000	600,000	800,000
Borrowings	727,466	-	-	-	-
Deposits	27,957,220	34,896,424	42,415,443	53,337,264	58,920,455
Bills payable	62,947	72,368	80,685	78,616	165,354
Proposed dividend	24,904	83,080	93,465	104,699	176,680
Income tax liabilities	-	-		3,468	-
Other liabilities	231,535	345,252	419,347	738,200	934,704
Total liabilities	**30,916,681**	**38,047,679**	**46,088,233**	**58,059,707**	**64,796,152**
ASSETS	**2009**	**2010**	**2011**	**2012**	**2013**
Cash balance	652,027	815,679	1,007,688	1,186,755	1,239,453
Balance with NRB	444,138	1,842,802	2,330,927	3,269,609	4,957,064
Balance with bank and other financial institution	807,740	782,779	1,539,210	1,052,017	1,516,885
Money at call and short notice	-	782,779	-	178,250	138,925

Investment	13,286,181	16,305,632	18,911,021	24,463,451	25,906,119
Loans, Advances & B.P	15,131,747	17,480,548	21,365,771	26,142,094	28,788,146
Fixed assets	253,580	418,244	417,002	715,920	661,589
Non banking assets	-	-	-	-	-
Other assets	341,265	401,992	516,612	1,051,608	1,587,968
Total assets	**30,916,681**	**38,047,679**	**46,088,233**	**58,059,707**	**64,796,152**

APPENDIX - IV

PROFIT AND LOSS ACCOUNT OF NEPAL SBI BANK LTD.

(Rs. In Thousans)

Particulars	**2008/09**	**2009/10**	**2010/11**	**2011/12**	**2012/13**
Interest Income	1,460,445	2,269,704	3,099,907	3,769,483	4,110,514
Interest Expenses	824,700	1,443,693	2,096,038	2,770,798	2,486,978
Net Interest Income	**635,745**	**826,010**	**1,003,869**	**998,684**	**1,623,535**
commission and Discount	78,836	131,692	236,159	255,351	313,696
Other Operating Income	52,790	78,796	95,172	141,761	157,755
Exchange Fluctuation Income	61,294	70,328	70,532	101,138	101,915
Total operating Income	**828,666**	**1,106,827**	**1,405,734**	**1,496,936**	**2,196,902**
Staff Expenses	121,989	130,336	255,430	289,153	416,560
Other Operating Expenses	223,965	343,850	429,743	456,126	477,246
Exchange Fluctuation Loss	-	-	-	-	-
Operating profit before Provision for Possible Loss	**482,711**	**632,649**	**729,560**	**751,656**	**1,303,095**
Provision for Possible Losses	40,345	62,350	55,308	78,011	128,040
Operating Profit	**442,366**	**570,290**	**674,252**	**673,644**	**1,175,054**
Non-operating Income/loss	2,516	2,552	3,113	2,182	(287)

Provision for Possible loss written back	198,672	56,621	179,122	91,695	43,861
Profit from Regular Operation	**643,555**	**629,464**	**856,488**	**767,522**	**1,218,628**
Profit/loss from extra-ordinary Activities	(156,220)	(37,266)	(137,672)	(12,203)	2,326
Net profit after All Activities	**487,334**	**592,198**	**718,815**	**755,318**	**1,220,954**
Provision for staff Bonus	44,303	53,836	65,346	68,665	110,995
Provision for Income Tax	126,658	146,620	188,903	206,548	338,487
* Current year's	133,123	183,015	206,531	229,051	363,530
* Previous	2,582	(28,395)	(4,928)	729	565
Deferred tax	(9,048)	(7,999)	(12,699)	(23,233)	(25,608)
Net Profit/Loss	**316,373**	**391,742**	**464,564**	**480,105**	**771,471**

APPENDIX – V

CLASSIFICATION OF LOANS & BILLS PURCHASE & PROVISIONING OF NSBL

(Rs. in millions)

Particulars	**2008/09**	**2009/10**	**2010/11**	**2011/12**	**2012/13**
1. Performing Loan	15296.1	17471.1	21479.5	26319.8	29085.2
1.1 Pass	15296.1	17471.1	21479.5	26319.8	29085.2
2. Non- performing Loan	315.9	492.6	239.3	143.8	108.7
2.1 Restructure/ Reschedule	-	227.4	139.9	106.4	27.6
2.2 Sub –standard	13.2	12.9	2.4	4.6	-
2.3 Doubtful	11.3	1.1	1.8	2.8	-
2.4 Loss	291.4	251.0	95.1	30.0	81.1
A Total Loan	15612	17963.6	21718.8	26463.7	29193.9
3. Loan Loss provision					
3.1 pass	149.5	173.6	213.7	262.4	299.0
3.2 Restructure/Rescheduled	39.1	60.3	46.41	29.9	27.6
3.3 Sub- standard	2.7	3.2	0.51	1.1	-
3.4 Doubtful	3.7	0.22	0.59	1.2	-
3.5 Loss	285.3	245.8	91.8	26.9	79.1
B. Total Provisioning	480.3	483.1	353.02	321.6	405.7

Net Loan (A – B)	15131.7	17480.5	21365.8	26142.0	28.738.0

APPENDIX – VI

CLASSIFICATION OF LOANS & BILLS PURCHASE & PROVISIONING OF EBL

(Rs. in millions)

Particulars	**2008/09**	**2009/10**	**2010/11**	**2011/12**	**2012/13**
1. Performing Loan	24351.6	28030.8	31553.3	36309.3	43921.6
1.1 Pass	24351.6	28030.8	31533.3	36309.3	43921.6
2. Non- performing Loan	117.98	125.6	108.5	307.5	276.2
2.1 Restructure/ Reschedule	-	81.9	14.2	0.75	-
2.2 Sub –standard	1.4	5.5	72.9	77.4	6.5
2.3 Doubtful	28.5	12.6	4.41	10.4	10.4
2.4 Loss	88.11	25.6	16.97	218.9	259.3
A Total Loan	24469.6	28156.4	31661.8	36616.8	44197.7
3. Loan Loss provision					
3.1 pass	242.5	280.3	315.5	363.1	439.2
3.2 Restructure/Rescheduled	12.9	10.23	1.8	0.093	-
3.3 Sub- standard	0.34	1.4	18.23	19.4	1.6
3.4 Doubtful	14.3	6.30	2.2	5.2	5.2
3.5 Loss	88.11	25.6	16.97	218.9	259.3
3.6 Additional Provision	226.8	276.2	249.4	99.2	99.2

B. Total Provisioning	584.9	600.04	604.2	705.9	804.6
Net Loan (A – B)	23884.7	27556.4	31057.7	35910.9	43393.2

APPENDIX – VII

For EBL

Fiscal Year	Loan to deposit		Loan & advance to T.A.		LLP to Loan & advance	
	X	$(X - \bar{X})^2$	X	$(X - \bar{X})^2$	X	$(X - \bar{X})^2$
2008/09	71.68	4.33	64.70	0.12	0.39	0.00010
2009/10	74.61	0.72	59.60	22.66	0.28	0.010
2010/11	75.51	3.06	67.17	7.90	0.32	0.0036
2011/12	71.81	3.80	64.34	0.0004	0.70	0.1024
2012/13	75.18	2.02	66.00	2.69	0.23	0.023
Total	368.7	13.93	321.8	33.4	1.92	0.139
Mean	73.76		64.36		0.38	
S.D.	1.67		2.58		0.17	
C.V.	0.02		0.04		0.45	

$$\bar{X} = \frac{\Sigma x}{n}, \text{ S.D.} = \sqrt{\frac{\Sigma(X - \bar{X})^2}{n}} \text{ and C.V.} = \frac{\text{S. D.}}{\bar{X}}$$

Fiscal Year	NPL to Loan & advance		LLP to Non-performing loan		Net profit to loan and advance	
	X	$(X - \bar{X})^2$	X	$(X - \bar{X})^2$	X	$(X - \bar{X})^2$
2008/09	0.49	0.0049	78.89	84.27	2.60	0.17
2009/10	0.46	0.0100	61.33	70.22	3.01	0.000004

2010/11	0.35	0.0441	90.59	435.97	3.00	0.000064
2011/12	0.86	0.0900	81.97	150.31	3.04	0.00102
2012/13	0.64	0.0064	35.77	1151.92	3.39	0.16
Total	2.8	0.1554	348.6	1892.69	15.04	0.33
Mean	0.56		69.71		3.008	
S.D.	0.18		19.46		0.26	
C.V.	0.32		0.28		0.09	

APPENDIX - VIII

For NSBL

Fiscal Year	Loans to deposit		Loans to T.A.		LLP to Loan & advance	
	X	$(X - \bar{X})^2$	X	$(X - \bar{X})^2$	X	$(X - \bar{X})^2$
2008/09	58.29	48.16	50.16	8.88	0.27	0.0036
2009/10	50.09	1.59	49.94	7.62	0.37	0.0016
2010/11	50.37	0.96	46.36	0.67	0.26	0.0049
2011/12	49.01	5.48	45.03	4.62	0.30	0.00090
2012/13	49.00	5.52	44.43	7.56	0.44	0.0121
Total	256.8	61.71	235.9	29.35	1.64	0.023
Mean	51.35		47.18		0.33	
S.D.	3.51		2.42		0.068	
C.V.	0.07		0.051		0.21	

$\bar{X} = \frac{\Sigma x}{n}$, S.D. $= \sqrt{\frac{\Sigma(X - \bar{X})^2}{n}}$ and C.V. $= \frac{\text{S. D.}}{\bar{X}}$

Fiscal Year	NPL to Loan & advance		LLP to Non-performing loan		Net profit to loan and advance	
	X	$(X - \bar{X})^2$	X	$(X - \bar{X})^2$	X	$(X - \bar{X})^2$
2008/09	2.08	0.48	12.70	996.67	2.09	0.0121
2009/10	2.83	2.074	12.55	1006.16	2.24	0.0016

2010/11	1.12	0.073	23.01	451.99	2.17	0.0009
2011/12	0.55	0.706	54.55	105.68	1.84	0.13
2012/13	0.38	1.1020	118.52	5513.06	2.68	0.23
Total	6.96	4.44	221.3	8073.56	11.02	0.375
Mean	1.39		44.27		2.20	
S.D.	0.94		40.18		0.27	
C.V.	0.68		0.91		0.12	

APPENDIX -IX

Correlation between Loan & Advances and Total Deposit of EBL

(Rs. In Millions)

Year	**Loan & Advance (x)**	**Total Deposit (y)**	**xy**	**x^2**	**y^2**
2008/09	23,884	33,322	795862648	570445456	1103701284
2009/10	27,556	36,932	1017698192	759333136	1363972624
2010/11	31,057	41,127	1277281239	964537249	1691430129
2011/12	35,910	50,006	1795715460	1289528100	2500600036
2012/13	43,393	57,720	2504643960	1882952449	3331598400
sum(Σ)	**161,800**	**219,107**	**7391201499**	**5466796390**	**9997956873**

Source: Appendix I and II

Calculation of coefficient of correlation (r)

We have,

$$r = \frac{n\Sigma xy - \Sigma x\Sigma y}{\sqrt{n\Sigma x^2 - (\Sigma x)^2}\sqrt{n\Sigma y^2 - (\Sigma y)^2}} = \frac{36956007495 - 35451512600}{33981 \times 44519} = \frac{1504494895}{1512800139}$$

$= 0.9945$ $r = 0.9945$

Coefficient of determination (r^2) = $0.9945 \times 0.9945 = 0.9890$

For T – test

$$t = \frac{r}{\sqrt{1 - r^2}} \times \sqrt{n - 2}$$

$$= \frac{0.9945}{\sqrt{1 - (0.9945)^2}} \times \sqrt{5 - 2}$$

$= 9.48 \times 1.73$

$= 16.40$

APPENDIX - X

Correlation between loan & advances and total deposit of NSBL

(Rs. In Millions)

Year	Loan and Advance (x)	Total Deposit (y)	xy	x^2	y^2
2008/09	15,161	25,957	393534077	229855921	673765849
2009/10	17,480	34,896	609982080	305550400	1217730816
2010/11	21,365	42,415	906196475	456463225	1799032225
2011/12	26,142	53,337	1394335854	683404164	2844835569
2012/13	28,788	58,920	1696188960	828748944	3471566400
sum(Σ)	**Σx = 108936**	**Σy = 215525**	**Σxy = 5000237446**	**Σx^2 = 2504022654**	**Σy^2 = 10006930859**

Calculation of coefficient of correlation (r)

We have,

$$r = \frac{n\Sigma xy - \Sigma x \Sigma y}{\sqrt{n\Sigma x^2 - (\Sigma x)^2}\sqrt{n\Sigma y^2 - (\Sigma y)^2}} = \frac{25001187230 - 23478431400}{25555 \times 59863} = \frac{1522755830}{1529798965}$$

$= 0.9954$ r =0.9954

Coefficient Determination $r^2 = 0.9954 \times 0.9954 = 0.9908$

For T – test

$$t = \frac{r}{\sqrt{1 - r^2}} \times \sqrt{n - 2}$$

$$= \frac{0.9954}{\sqrt{1 - (0.9908)^2}} \times \sqrt{5 - 2}$$

$= 10.38 \times 1.73$

$= 17.95$

APPENDIX - XI

Correlation between Loan & Advances and Loan Loss provision of EBL

(Rs. In Millions)

Year	Loan & Advance (x)	Loan loss provision (y)	xy	x^2	y^2
2008/09	23,884	93	2221212	570445456	8649
2009/10	27,556	77	2121812	759333136	5929
2010/11	31,057	98	3043586	964537249	9604
2011/12	35,910	252	9049320	1289528100	63504
2012/13	43,393	98	4252514	1882952449	9604
)□sum(	**Σx=161,800**	**Σy=618**	**Σxy=20688444**	**Σx^2 =5466796390**	**Σx^2 =97290**

Calculation of coefficient of correlation (r)

We have,

$$r = \frac{n\Sigma xy - \Sigma x\Sigma y}{\sqrt{n\Sigma x^2 - (\Sigma x)^2}\sqrt{n\Sigma y^2 - (\Sigma y)^2}} = \frac{103442220 - 99992400}{33981 \times 323} = \frac{3449820}{10975863}$$

$= 0.31$ r = 0.31

Coefficient Determination $r^2 = 0.31 \times 0.31 = 0.0961$

For T – test

$$t = \frac{r}{\sqrt{1 - r^2}} \times \sqrt{n - 2}$$

$$= \frac{0.31}{\sqrt{1 - (0.31)^2}} \times \sqrt{5 - 2}$$

$= 0.3260 \times 1.73$

$= 0.564$

APPENDIX - XII

Correlation between Loan & Advances and Loan Loss provision of NSBL

(Rs. In Millions)

Year	Loan and Advance (x)	loan loss provision (y)	xy	x^2	y^2
2008/09	15,161	40	606440	229855921	1600
2009/10	17,480	62	1083760	305550400	3844
2010/11	21,365	55	1175075	456463225	3025
2011/12	26,142	78	2039076	683404164	6084
2012/13	28,788	128	3684864	828748944	16384
)□sum(	$\Sigma x = 1$ 8936	$\Sigma y =$	$\Sigma xy =$ 8589215	$\Sigma x^2 = 25$ 4	$\Sigma y^2 =$

Calculation of coefficient of correlation (r)

We have,

$$r = \frac{n\Sigma xy - \Sigma x \Sigma y}{\sqrt{n\Sigma x^2 - (\Sigma x)^2}\sqrt{n\Sigma y^2 - (\Sigma y)^2}} = \frac{42946075 - 39543768}{25555 \times 151} = \frac{3402307}{3858805}$$

$= 0.8817$ r = 0.8817

Coefficient Determination $r^2 = 0.8817 \times 0.8817 = 0.7774$

For T – test

$$t = \frac{r}{\sqrt{1 - r^2}} \times \sqrt{n - 2}$$

$$= \frac{0.8817}{\sqrt{1 - (0.0.8817)^2}} \times \sqrt{5 - 2}$$

$$= 1.869 \times 1.73$$

$$= 3.23$$

APPENDIX - XIII

Correlation between Loan & Advances and Non – performing Loan of EBL

(Rs. In Millions)

Year	Loan and Advance (x)	non-performing loan (y)	xy	x^2	y^2
2008/09	23,884	117	2794428	570445456	13689
2009/10	27,556	125	3444500	759333136	15625
2010/11	31,057	108	3354156	964537249	11664
2011/12	35,910	307	11024370	1289528100	94249
2012/13	43,393	276	11976468	1882952449	76176
)□sum(	Σx = 161800	Σy= 933	Σxy= 32593922	Σx^2 = 5466796390	Σy^2 = 211403

Calculation of coefficient of correlation (r)

We have,

$$r = \frac{n\Sigma xy - \Sigma x\Sigma y}{\sqrt{n\Sigma x^2 - (\Sigma x)^2}\sqrt{n\Sigma y^2 - (\Sigma y)^2}} = \frac{162969610 - 150959400}{33981 \times 432} = \frac{12010210}{14679792}$$

$= 0.8181$ r = 0.8181

Coefficient Determination $r^2 = 0.8181 \times 0.8181 = 0.6693$

For T – test

$$t = \frac{r}{\sqrt{1 - r^2}} \times \sqrt{n - 2}$$

$$= \frac{0.8181}{\sqrt{1 - (0.8181)^2}} \times \sqrt{5 - 2}$$

$$= 1.422 \times 1.73$$

$$= 2.46$$

APPENDIX -XIV

Correlation between Loan & Advances and Non – performing Loan of NSBL

(Rs. In Millions)

Year	Loan and Advance (x)	non-performing loan (y)	xy	x^2	y^2
2008/09	15,161	315	4775715	229855921	99225
2009/10	17,480	494	8635120	305550400	244036
2010/11	21,365	239	5106235	456463225	57121
2011/12	26,142	143	3738306	683404164	20449
2012/13	28,788	108	3109104	828748944	11664
)□sum(	Σx = 108936	Σy= 1299	Σxy= 25364480	Σx^2 = 25422654	Σy^2 = 432495

Calculation of coefficient of correlation (r)

We have,

$$r = \frac{n\Sigma xy - \Sigma x \Sigma y}{\sqrt{n\Sigma x^2 - (\Sigma x)^2}\sqrt{n\Sigma y^2 - (\Sigma y)^2}} = \frac{126822400 - 141507864}{25555 \times 689} = \frac{(14685464)}{17607395}$$

= (0.8340) r = (0.8340)

Coefficient Determination $r^2 = -0.8340 \times -0.8340 = 0.6956$

For T – test

$$t = \frac{r}{\sqrt{1 - r^2}} \times \sqrt{n - 2}$$

$$= \frac{-0.8340}{\sqrt{1 - (-0.8340)^2}} \times \sqrt{5 - 2}$$

$$= -1.512 \times 1.73$$

$$= -2.615$$

APPENDIX - XV

Least Square of Linear Trend of Loan & Advances

(Rs. In millions)

Fiscal Year (t)	EBL				NSBL			
	Loan & Advance (Y)	X = t-2010/11	X^2	XY	Loan & Advance (Y)	X = t-2010/11	X^2	XY
2008/09	23,884	-2	4	(47768)	15,161	-2	4	(30323)
2009/10	27,556	-1	1	(27,556)	17,480	-1	1	(17480)
2010/11	31,057	0	0	0	21,365	0	0	0
2011/12	35,910	1	1	35910	26,142	1	1	26142
2012/13	43,393	2	4	86786	28,788	2	4	57576
Sum(Σ)	Σy =161,800	0	10	Σxy =47372	Σy = 108,938	0	10	Σxy = 35,914

For EBL: $\Sigma x = 0$, $a = \frac{\Sigma y}{n} = \frac{161800}{5}$ = Rs. 32360 & $b = \frac{\Sigma xy}{\Sigma x^2} = \frac{47372}{10}$ =Rs 4737

For NSBL: $\Sigma x = 0$, $a = \frac{\Sigma y}{n} = \frac{108938}{5}$ = Rs. 21,787 & $b = \frac{\Sigma xy}{\Sigma x^2} = \frac{35914}{10}$ =Rs3,591

Substituting these values in the following formula,

$y = a + bx$

Year	EBL	NSBL
2013/14	32360 + 4737.2 × 3 = Rs. 46571.6,	21787 + 3591 × 3 = Rs. 32,560
2014/15	32360 + 4737.2 × 4 = Rs.51309,	21787 + 3591 × 4 = Rs. 36151
2015/16	32360 + 4737.2 × 5 = Rs. 56046,	21787 + 3591 × 5 = Rs. 39742
2016/17	32360 + 4737.2 × 6 = Rs. 60783 ,	21787 + 3591 × 6 = Rs. 43333
2017/18	32360 + 4737.2 × 7= Rs.65520.4	21787 + 3591 × 7 = RS.46924

APPENDIX - XVI

Least Square of Linear Trend of Net Profit

(Rs. In millions)

Fiscal Year (t)	EBL				NSBL			
	net profit (Y)	X = t-2010/11	X^2	XY	net profit (Y)	X = t-2010/11	X^2	XY
2008/09	638	-2	4	(1276)	316	-2	4	(632)
2009/10	831	-1	1	(831)	391	-1	1	(391)
2010/11	931	0	0	0	464	0	0	0
2011/12	1,090	1	1	1090	480	1	1	480
2012/13	1,471	2	4	2942	771	2	4	1542
Sum(Σ)	Σy =4961	0	10	Σxy =1925	Σy = 2424	0	10	Σxy =998

For EBL: $\Sigma x = 0$, $a = \frac{\Sigma y}{n} = \frac{4961}{5}$ = Rs. 992.2 & $b = \frac{\Sigma xy}{\Sigma x^2} = \frac{1925}{10}$ =Rs 192.5

For NSBL: $\Sigma x = 0$, $a = \frac{\Sigma y}{n} = \frac{2424}{5}$ = Rs. 484.8 & $b = \frac{\Sigma xy}{\Sigma x^2} = \frac{998}{10}$ =Rs 99.8

Substituting these values in the following formula,

$y = a + bx$

Year	EBL	NSBL

2013/14	992.2 + 192.5 x 3 = Rs. 1569.7	484.8 + 99.8 × 3 = Rs. 784
2014/15	992.2 + 192.5 x 4 = Rs. 1762	484.8 + 99.8 × 4 = Rs. 884
2015/16	992.2 + 192.5 x 5= Rs.1955	484.8 + 99.8 × 5 = Rs. 984
2016/17	992.2 + 192.5 x 6= Rs. 2147.2	484.8 + 99.8 × 6 = Rs. 1084
2017/18	992.2 + 192.5 x 7= Rs.2340	484.8 + 99.8 × 7 = Rs. 1183

APPENDIX - XVII

Least Square of Linear Trend of Loan loss provision

(Rs. In millions)

Fiscal Year (t)	EBL				NSBL			
	Loan loss provision (Y)	X = t-2010/11	X^2	XY	Loan loss provision (Y)	X = t-2010/11	X^2	XY
2008/09	93	-2	4	-186	40	-2	4	-80
2009/10	77	-1	1	-77	62	-1	1	-62
2010/11	98	0	0	0	55	0	0	0
2011/12	252	1	1	252	78	1	1	78
2012/13	98	2	4	196	128	2	4	256
Sum(Σ)	Σy = 618	0	10	Σxy =185	Σy =363	0	10	Σxy =192

For EBL

Since, $\Sigma x = 0$, $a = \frac{\Sigma y}{n} = \frac{618}{5}$ = Rs. 123.6 & $b = \frac{\Sigma xy}{\Sigma x^2} = \frac{185}{10}$ = Rs.18.5

For NSBL

Since, $\Sigma x = 0$, $a = \frac{\Sigma y}{n} = \frac{363}{5}$ = Rs. 72.6 & $b = \frac{\Sigma xy}{\Sigma x^2} = \frac{192}{10}$ =Rs 19.2

Substituting these values in the following formula,

$y = a + bx$

Year	EBL	NSBL

2013/14	123.6 + 18.5 x 3 = Rs. 179.1	72.6 + 19.2 × 3 = Rs. 130
2014/15	123.6 + 18.5 x 4= Rs. 198	72.6 + 19.2 × 4 = Rs. 149
2015/16	123.6 + 18.5 x 5 = Rs. 216	72.6 + 19.2 × 5 = Rs. 169
2016/17	123.6 + 18.5 x 6 = Rs. 235	72.6 + 19.2 × 6 = Rs. 188
2017/18	123.6 + 18.5 x 3= Rs. 253	72.6 + 19.2 × 7= Rs. 207

APPENDIX - XVIII

Least Square of Linear Trend of non – performing loan

(Rs. In millions)

Fiscal Year (t)	EBL				NSBL			
	Non-performing loan (Y)	X = t-2010/11	X^2	XY	Non-performing loan (Y)	X = t-2010/11	X^2	XY
2008/09	117	-2	4	-234	315	-2	4	-630
2009/10	125	-1	1	-125	494	-1	1	-494
2010/11	108	0	0	0	239	0	0	0
2011/12	307	1	1	307	143	1	1	143
2012/13	276	2	4	552	108	2	4	216
Sum(Σ)	Σy = 933	0	10	Σxy =500	Σy =1299	0	10	Σxy =(765)

For EBL

Since, $\Sigma x = 0$, $a = \frac{\Sigma y}{n} = \frac{933}{5}$ = Rs. 186.6 & $b = \frac{\Sigma xy}{\Sigma x^2} = \frac{50}{10}$ = Rs. 50

For NSBL

Since, $\Sigma x = 0$, $a = \frac{\Sigma y}{n} = \frac{1299}{5}$ = Rs. 259.8 & $b = \frac{\Sigma xy}{\Sigma x^2} = \frac{-765}{10}$ =Rs – 76.5

Substituting these values in the following formula,

$y = a + bx$

Year	EBL	NSBL
2013/14	186.6 + 50 x 3 = Rs. 336.6	259.8 + (-76.5 × 3) = Rs. 30.3
2014/15	186.6 + 50 x 4 = Rs. 386.6	259.8 + (-76.5 × 4) = Rs. – 46.2
2015/16	186.6 + 50 x 5 = Rs. 436.6	290 + (-76.5 × 5) = Rs. - 122.7
2016/17	186.6 + 50 x 6= Rs. 486.6	259.8 + (-76.5 × 6) = Rs. – 199.2
2017/18	186.6 + 50 x 7= Rs. 536.6	259.8 + (-76.5 × 7)= Rs. – 275.7

APPENDIX XIX

List of Commercial Banks in Nepal

S.N	Bank Name	Operation Date	Head Office	(Rs in Million) Paid up Capital
1	Nepal Bank Ltd.	11/15/1937	Dharmapath, Kathmandu	1772.83
2	Rastriya Banijya Bank Ltd.	1/23/1966	Singhadurbarplaza, Kathmandu	1172.3
3	Agriculture Development Bank Ltd.	1/21/1968	Ramshahpath,Kathmandu	9474.3
4	Nabil Bank Ltd.	7/12/1984	Kantipath, Kathmandu	2435.72
5	Nepal Investment Bank Ltd.	3/9/1986	Durbarmarg,Kathmandu	3012.92
6	Standard Chartered Bank Nepal Ltd..	2/28/1987	Nayabaneshwor, Kathmandu	1610.17
7	Himalayan Bank Ltd.	1/18/1993	Thamel, Kathmandu	2400

8	Nepal SBI Bank Ltd.	7/7/1993	Hattisar, Kathmandu	2093.99
9	Nepal Bangladesh Bank Ltd.	6/6/1994	Nayananeshwor, Kathmandu	2009.4
10	Everest Bank Ltd.	10/18/1994	Lazimpat , Kathmandu	1391.64
11	Bank of Kathmandu Ltd.	3/12/1995	Kamaldi, mKathmandu	1604.19
12	Nepal Credit and Commerce Bank Ltd.	10/14/1996	Siddharthanagar, Rupandehi	1400
13	Lumbini Bank Ltd.	7/17/1998	Narayangadh, Chitawan	1430
14	Machhapuchhre Bank Ltd.	10/3/2000	Prithwichowk, Pokhara, Kaski	2478.79
15	Kumari Bank Ltd.	4/3/2001	Durbarmarg, Kathmandu	1603.8
16	Laxmi Bank Ltd.	4/3/2002	Adarsanagar, Birgunj, Parsa	1694.08
17	Siddhartha Bank Ltd.	12/24/2002	Kamaladi, Kathmandu	1619.24
18	Global IME Bank Ltd.	1/2/2007	Birgunj, Parsa	2184.86
19	Citizens Bank International Ltd.	4/20/2007	Kamaladi, Kathmandu	2101.84
20	Prime Commercial Bank Ltd	9/24/2007	Newroad, Kathmandu	2245.75
21	Sunrise Bank Ltd.	10/12/2007	Gairidhara, Kathmandu	2015
22	Grand Bank Nepal Ltd.	5/25/2008	Kamaladi, Kathmandu	2000
23	NMB Bank Ltd.	6/2/2008	Babarmahal, Kathmandu	2000
24	Kist Bank Ltd.	5/7/2009	Anamnagar, Kathmandu	2000
25	Janata Bank Nepal Ltd.	4/5/2010	Naya Baneshwor, Kathmandu	2000
26	Mega Bank Nepal Ltd.	7/23/2010	Kantipath, Kathmandu	1631
27	Commerz & Trust Bank	9/20/2010	Kamaladi, Kathmandu	1400

	Nepal Ltd.			
28	Civil Bank Ltd.	11/26/2010	Kamaladi, Kathmandu	1200
29	Century Commercial Bank Ltd.	3/10/2011	Putalisadak , Kathmandu	1080
30	Sanima Bank Ltd.	2/15/2012	Nagpokhari, Kathmandu	2016
31	Nic Asia Bank Nepal Ltd.	30/06/2013	Trade Tower, Thapathali, Kathmandu	5000