# LOAN MANAGEMENT OF NEPALESE COMMERCIAL BANKS <br> COMPARISION BETWEEBN NEPAL BANK LIMITED AND NABIL BANK LIMITED 

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## RECOMMENDATION

## This is to certify that the thesis:

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# LOAN MANAGEMENT OF NEPALESE COMMERCIAL BANKS (Comparison between Nepal Bank Limited and NABIL Bank Limited) 

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and found the thesis to be the original work of the student and written according to the prescribed format. We recommend the thesis to be accepted as partial fulfillment of the requirements for degree of

## Master of Business Studies (M.B.S.)

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| ABBREVIATIONS/ACRONNYMS |  |  |
| :---: | :---: | :---: |
| ABBS | = | Any Branch Banking Service |
| A/C | = | Account |
| A.D. | = | Anno Domination (in the year of lord. Cristan era) |
| ADB | = | Agriculture Development Bank |
| ATM | = | Automatic Teller Machine |
| ADB/N | = | Agriculture Development Bank Nepal |
| BFIS | = | Banking and Financial Statistics |
| B. S. | = | Bikram Sambat |
| CA | = | Current Assets |
| CD | = | Credit Deposit |
| CRR | = | Cash Reserve Rate |
| CV | = | Coefficient of Variation |
| e.g. | = | For Example |
| FCY | = | Foreign Currency |
| F.Y. | = | Fiscal Year |
| GDP | = | Gross Domestic Product |
| HBL | = | Himalayan Bank Limited |
| i. e. | = | That is |
| KEB | = | Korea Exchange Bank |
| KYC | = | Know Your Customer |
| LC | = | Letter of Credit |
| Ltd | = | Limited |
| MBS | = | Masters in Business Studies |
| NPL | = | Non-performing Loan |
| NPA | = | Non-performing Assets |
| NRB | = | Nepal Rastra Bank |
| NRs | = | Nepalese Rupees |
| NBL | = | Nepal Bank Limited |
| NABIL | = | Nabil Bank Limited |
| OD | = | Over Draft |
| P.E. | = | Probable Error |
| RWA | = | Risk Weighted Assets |
| SMS | = | Sending Message Service |
| SWOT | = | Strength, Weakness, Opportunities, Treats |
| S.D. | = | Standard Deviation |
| TR | = | Trust Receipt |
| T. U. | = | Tribhuvan University |

## CHAPTER - I

## INTRODUCTION

### 1.1 Background of the Study

Capital is termed in different ways by different scholars and professionals. Economists speak of it as wealth; businessmen speak it as total assets whereas the accountant as net assets, or stockholder's interest as shown by the balance sheet or the net worth of the stockholders' equity. Similarly, a lawyer calls it capital stock. Whatever may be the term used, capital is the fund raised to finance different assets, short-term or long-term. Therefore, capital is a mix of long-term as well as short-term funds (Bhattari, 2009:1).

Capital is regarded as the fundamental and vital factor for the economic development of any country. Each and every developmental programme needs capital. The main problem of under developed country is lack of capital and its well mobilization. The banking role is indisputable in the field of capital formation, collection of scattered resources and mobilization of the capital. Therefore banks are interpreted as the king of business world. Loan is essential for the rapid economic development of any country. Banks provide other services such as remittances of fund, purchase of bills, supplying of timely credit and other market informations. These services are also necessary for the rapid and smooth business and economic activities.

History shows the requirements of economic development of any country directly depends on its banking system. During the industrial development period, U.K. used bank credit to fulfill its working capital needs. In $19^{\text {th }}$ century, during the industrialization process of finance in Germany, banks played a vital role in industrial finance and the growth of the nation.

Normally bank means, an institution that deals with money. Any bank performs several financial, monetary and economic activities that are primary factors for the economic development of the country. It is a monetary institutional vehicle for domestic mobilization of the country that accepts deposits from several sources and invests such collected resources in the field of agriculture, trade, commerce etc in order to generate the profit. Generally, the term bank refers the commercial banks. Commercial banks are the foundation of the national economy that transfers monetary sources from savers to the users. The banks involve in several functions such as; creation of money, facilitating credit, facilitating foreign trade, safe keeping of the values etc. Commercial banks have their own role and contributions in the economic development of any country. They are the source for economic progress. They maintain economic confidence of various segments and extend credit to people. Thus, the activities of commercial banking sectors have contributions to eliminate poverty, reduce un-employment and raise economic growth.

Modern commercial banks can be identified by different names such as business banks, retail banks, clearing banks, joint venture banks, merchant banks etc. No matter whatever may the name be given to the banks, they all perform the same fundamental function. The function is to develop a link between lenders, those who have surplus money and do not wish to spend immediately with borrowers, those they do not have surplus money but wish to borrow for investment in productive purpose (Khatri, 2004:17).

Basically, by charging a rate of interest to borrowers slightly higher than they pay to lenders, the banks earn their profit. This process is known as financial interpretation. Commercial banks provide the following significant products and services via acceptances of deposits, granting of advances, remittance collection and distribution, cash management and handling government business, insurance of LC and guarantee, merchant banking business, credit cards, loan distribution, technology bases services (internet banking services) and safe keeping services [Lockers service].

The First public bank "The Bank of Venice" was established in Italy in 1357 AD. Different countries in the world followed the steps of this bank to incorporate banking institution themselves. The establishment of "The Bank of England" in the kingdom of 1694 AD brought remarkable changes in the process of establishing banking institution in the world. The establishment of this bank was a big milestone in the history of banking development. It is believed that the idea of commercial banks rapidly spreaded all over the world only after the inception of this bank.

In Nepal development of banking is relatively recent. The record of banking system in Nepal gives detail account of mixture life. Landlord and rich merchants had acted as lender in the un-organized money market. At the end of $8^{\text {th }}$ century, Gunakama Dev had borrowed money to rebuild the Kathmandu valley. In the $11^{\text {th }}$ century during Malla regime, there was an evidence of professional money lenders used to charge high rate of interest and other extra dues on loans extended. After the establishment of "Tejarath Adda" during the year 1877 AD, by the government of Kathmandu valley, the banking system was flourished which helped general public to provide credit facilities at very low interest rate. The Tejarath Adda extended the loan to the public against collateral of gold and silver. Therefore establishment of Tejarath Adda could be taken as pioneer foundation of banking in Nepal. The Tejarath Adda could not run and extend the advance required to general public due to the lack of financial assistance, as no other financial institutions were built until the period. Again the organized money lender became active. The need of banking institutions was realized when there was a need of finance for the reconstruction of various damages made by the Earthquake in 1936 AD, which formulated the "Company Act and "Nepal Bank Act" 1937 AD.

Up to the time of preparation of this report there are 32 commercial banks are in Nepal. Agriculture Development Bank has also been included in "A" class financial institutions three years ago. The name and the year of establishment of the commercial banks operating in Nepal are as follows:

Table : 1.1
List of Commercial Banks

| S.N. | Name of the Banks | Established Year |
| :---: | :---: | :---: |
| 1 | Nepal Bank Limited | 1937 |
| 2 | Rastriya Baniya Bank | 1966 |
| 3 | Agriculture Development Bank Ltd. | 1968 |
| 4 | NABIL Bank Limited | 1984 |
| 5 | Nepal Investment Bank Limited | 1986 |
| 6 | Standard Chartered Bank Nepal Limited | 1987 |
| 7 | Himalayan Bank Limited | 1993 |
| 8 | Nepal SBI Bank Limited | 1993 |
| 9 | Nepal Bangladesh Bank Limited | 1994 |
| 10 | Everest Bank Limited | 1994 |
| 11 | Bank of Kathmandu Limited | 1995 |
| 12 | Nepal Credit and Commerce Bank Limited | 1996 |
| 13 | Lumbini Bank Limited | 1998 |
| 14 | Nepal Industrial \& Commercial Bank Limited | 1998 |
| 15 | Machhapuchhre Bank Limited | 2000 |
| 16 | Kumari Bank Limited | 2001 |
| 17 | Laxmi Bank Limited | 2001 |
| 18 | Siddhartha Bank Limited | 2002 |
| 19 | Global Bank Limited | 2007 |
| 20 | Citizens Bank International Limited | 2007 |
| 21 | Prime Commercial Bank Limited | 2007 |
| 22 | Sunrise Bank Limited | 2007 |
| 23 | Bank of Asia Nepal Ltd. | 2007 |
| 24 | DCBL Bank Ltd. | 2008 |
| 25 | NMB Bank Ltd. | 2008 |
| 26 | Kist Bank Ltd. | 2009 |
| 27 | Janata Bank Nepal Ltd. | 2010 |
| 28 | Mega Bank Nepal Ltd. | 2010 |
| 29 | Commerz \& Trust Bank Nepal Ltd. | 2010 |
| 30 | Civil Bank Ltd. | 2011 |
| 31 | Century International Bank Ltd. | 2011 |
| 32 | Sanima Bank Ltd. | 2012 |

(Source: www.nrb.org.np)

### 1.2 Introduction of Sample Banks

## A. Introduction of Nepal Bank Limited

His Majesty King Tribhuvan inaugurated Nepal Bank Limited on Kartik 30, 1994 Bikram Sambat. This marked the beginning of an era of formal banking in Nepal. Until then all monetary tractions were carried out by private delalers and trading centres.

The Prime Minister Maharaja Juddha Shumsher J.B.R. speaking on the occasion with the kind permission of His Majesty the King stated this work which is being done in the larger interest of the nation is a great moment for me. Until today a bank could not be opened in Nepal. Therefore this bank, which is being established under the name of Nepal Bank Limited to fill the, need and to be inaugurated by his Majesty the King, is a moment of great joy and happiness. The Bank's objectives to render service to the people whether rich or poor and to contribute to the nation's development also is in need the support and best wishes of all,

In that era, very few understood and had confidence in this new concept of formal banking. Rising equity shares was not easy and mobilization of deposits even was more difficult. This was evident when the bank floated equity shares worth NRs. $25,00,000$ but was successful only in raising NRs. 8,42,000.

In the absence of any bank in Nepal the economic progress of the country was being hampered and causing inconvenience to the people. Therefore with the objective of fulfilling that need by providing service to the people and for the betterment of the country, this law in hereby promulgated for the establishment of the bank its operation (NBL,2008: 1).

The total deposit for the first year was NRs. 17, 02,025 where current deposits was about NRs. 12, 98,898 fixed were about NRs. 3, 88,964 and saving was NRs. 14,163. Loan disbursed and outstanding at the end of the first year was NRs. 1,985,000 (NBL, 2008: 1)

Nepal Bank Ltd. was as joint venture between the government and the private sector. Out of 2500 equity shares of NRs. 100 face value, $40 \%$ was
subscribed by the government and the balanced $60 \%$ was offered for the sale to private sector. There were only 10 shareholders when the bank first started.

Nepal Bank Limited, The first bank of Nepal was established in November 15, 1937 A.D. (Kartik, 30, 1994). It was formed under the principle of joint venture (Joint venture between govt. \& general public). NBL's authorized capital was Rs. 10 million \& issued capital Rs. 2.5 million of which paid up capital was Rs. 842 thousand with 10 shareholders. The bank has been providing banking service through its branch offices in the different geographical locations of the country.

In Nepalese banking system, Nepal bank limited was established in 1937 AD as the first commercial bank of Nepal. At the time, limited industrial undertaking and trading activities were created in the economy and NBL was set up for their financial shortcomings with the growth of diverse economic activities in the country, NBL was set for their financial needs.

The central bank of Nepal, 'Nepal Rastra Bank' was established in 1965 AD ; with the mission of developing banking system in the country in order to promote industry, trade and agriculture. In addition to its main function of circulating Nepalese currency all over the country with the advent of economic liberalization in late 1980 AD, different financial institutions were established to carry out the banking activities. Considering the role of commercial banks in the financial system for the promotion of industry, trade and business sectors, the government permitted to run 32 joint venture commercial banks, 84 development banks, 79 finance companies and about 150 other financial institutions and 47 non government organizations (Licensed by NRB for micro-credit transaction) are operating recently in Nepal (NRB, 2011:10).

Recently NBL has been providing the modern banking services - SMS Banking, E-Banking, ABB Service, Utility Payment, NBL Debit card services through its 114 branches in the nation. It has Authorised capital Rs.10,00,000 million, Issued capital Rs.5.00,000 million and Paid up capital Rs. 380,383 million respectively (NBL, 2010/11:42).

## B Introduction of NABIL Bank Limited

NABIL bank limited, the first foreign joint bank of Nepal, started operations in July 1984, NABIL was incorporated with the objective of extending international standard modern banking services to various sectors of the society, pursuing its objective, NABIL provides a full range of commercial banking services through its own 46 points of representation across the kingdom and over 170 reputed correspondent banks across the globe.

NABIL, as a pioneer in introducing many innovative products and marketing concepts in the domestic banking sector, represents a milestone in the banking history of Nepal as it started an era of modern banking with customer satisfaction measured as a focal objective while doing business. Its operations including day-to day operations and risk management are managed by highly qualified and experienced management team. Bank is fully equipped with modern technology which includes ATMs, credit cards, Debit card, Free mobile banking, Free internet banking, Free ABBS service, SMS banking, Unlimited withdraw and deposits, Free 365 days banking, Evening counter, KEB services, state of-art, world-renowned software from information technologies system, Bangalore-India, internet banking system and telebanking system. The bank is serving nepalese people through its 48 branches till now and it has Authorised capital Rs. 21,000 million, Issued capital Rs.20,298 million and Paid up capital Rs.20,298 million (NABIL, 2011: 73).

### 1.3 Focus of the Study

The history of modern commercial banking practice in Nepal is recent process. This study confirms the analysis of loan \& advances, deposit collection and their trends, non performing loan ratio, performing to non performing loan ration, loan loss provision, capital risk weighted assets from the F.Y. 2006/07 to 2010/11 in order to observe the banks performances. No any company can earn enough profit without well managed portfolio of loan.

This study focuses on whether the loan management procedure of NBL and NABIL is effective or not. And equally it focuses on loan disbursement,
loan recovery too. Also to attract the attention of a management of the banks in order to aware them in their vital operational activities.

### 1.4 Statement of the problems

Strengths, weakness, opportunities and threats of banks are the essences of commercial banking. Consequently the formulation and implementation of loan providing policies are among the vital responsibilities of directors and management. SW analysis effects on the company's profitability and liquidity. Therefore, it is one of the crucial decisions to be taken for the commercial banks. To provide loan without proper technical analysis is the great error of Commercial Banks. To remove this error it is necessary to establish the best system in management that is not be influenced easily by any internal frauds Therefore the loan management of NBL and NABIL has been taken, here as a thesis topic in to open clues about the management of loan and defaults. This research is concerned on following problems NBL \& NABIL bank limited.

1) What are the strength and weakness of loan administration in the banks?
2) How are the banks mobilizing their funds?
3) Are the fund mobilization and loan practice of the banks effective?
4) What is the position of the concerned banks in term of non performing loan ratio, $\mathrm{C} / \mathrm{D}$ ratio, loan loss provision ratio and non performing to performing ratio?

### 1.5 Objectives of the study

The fundamental objectives of the study are as follows:

1. To study and analyze the strength and weakness of loan administration in the banks. (Developing SW analysis chart)
2. To analyze the proportion of good and bad loans.
3. To analyze the effectiveness of fund mobilization and loan practice of the bank.
4. To detect the non performing loan ratio, $\mathrm{C} / \mathrm{D}$ ratio, loan loss provision ratio and non performing to performing ratio.

### 1.6 Significance of the study:

It is indisputable that the loans and advances are major source for profit generation of NBL and NABIL. Therefore the banks are carefully allocating their fund under loans and advances cum other heads. This under taken venture is supportive factor to know the true affairs and position of the banks regarding the management of loans. Similarly this study becomes a guideline for improving the performances of the banks to achieve their objectives. The study of loan management of NBL and NABIL is beneficialFor the investors to answer the questions-

- How are funds utilized as loans and advances?
- Is the productivity of their limited resources satisfactory?

For the customers, creditors, competitors, financial agencies stock exchange and personnel to answer the questions-

- To what extent are the banks gaining?

For the government ministers central banks security exchange and tax office-

- Are the banks managing the loan appropriately?
- How the banks are managing the deposits into the different loans?

For the researcher to answer the questions-

- Are the banks managing the loan effectively?
- Are the banks applying the best loan strategies?

For the bank administrations

- Is the loan management system efficient?
- Are the banks being able to meet the mission of loan management?

This study is useful to analyze position of NBL and NABIL, with respect to other banks regarding the performances such as: success or failure, effectiveness and so forth. Customer, creditor, competitors, investors, financing agencies, stock exchange and personnel can have information about the performance of NBL and NABIL loan and default with the help of the analysis. They can make yes or no decision for investment in the bank.

### 1.7 Limitation of the Study:

Every study has certain limitations in this study the major limitations are as follows:
a) The Study covers the relevant data information only for five years.
b) Major portion of analysis and interpretation is dependent on secondary data. Therefore the consistency of findings and conclusion are dependent on the reliability of secondary data.
c) The study has used only selected financial and statistical tools and techniques.
d) This study concerns only with the loan management of NBL and NABIL bank Limited.

### 1.8 Organization of the Study:

This study has been divided into five chapters that are as below.
Introduction- it deals with general background, focus of the study, statement of problem, objective of the study, significance of the study and limitation of the study and chapter plan.

Review of literature - it includes review of books, review of bulletins, journals and annual reports, published by banks and other related authorities, review of related articles and study of previous thesis, independent studies are taken into account.

Research Methology - it includes research design, source of data, data collection procedures and data processing and analysis.

Data presentation and analysis - it deals with the presentation and analysis of data through definite course of research methodology. This chapter analyses different financial rations and statistical analysis related to loan management of the banks.

Summary conclusion and recommendation - it is the last chapter of the research study, which deals with summary, conclusion and recommendation of the study.

## CHAPTER -II

## REVIEW OF LITERATURE

In this chapter, the focus has been made on the review of literature relevant to the Loan Management of NBL and NABIL banks. The main purpose of review of literature is to find out what research studies have been conducted in one's chosen field of study and what has been remained to be done. Every study is very much based on past knowledge. The past knowledge provides foundation to the present study. This chapter helps to take adequate feedback to broaden the information's and inputs to this study. This chapter has been divided into different parts, that have been arranged into the following order.

### 2.1 Conceptual Review

Financial institutions occupy the paramount role in development of the country. These institutions not only mobilize savings but also promote investments in the different enterprises of the national economy that spontaneously assist in alleviating poverty, enhancing employment opportunities and developing the society and country as a whole. Thus, the development of financial institutions is regarded as one of the crucial yardstick for measuring the level of economic development of any country. One of the poorest countries in the world, Nepal, is in need of additional capital investment to promote the rate economic growth. Domestic and foreign capital (grants and loans) are two major chunks of capital available for investment and earlier is crux and stable source of capital to gear up the sustainable development of nation.

Commercial banks accelerate internal resource mobilization process as per directives of Nepal Rastra Bank. The rate of growth of saving is very low and country is relying on foreign capital (i.e. loan) to bridge the gap in demand
of capital. Therefore, liberal and open market policy stimulates arrival of financial institutions.

Credit administration involves the creation and management of risk assets. The process of lending takes into consideration the people and system required for the evaluation and approval of loan requests, negotiation of terms, documentation, disbursement, administration of outstanding loans and workouts, knowledge of the process and awareness of its strength and weakness are important in setting objectives and goals for lending activities and for allocating available funds to various lending function such as commercial, installment and mortgage portfolio (Johnson, 1940; 32).

### 2.1.1 Meaning of Terminologies

The general terms used in the literature review and loan management are as below:

## a) Deposit

The sum of money collected by the banks from the depositors in different accounts is called deposit. The banks collect deposit from customers in various accounts like current account, saving account and fixed deposit account. Deposit is the main source of fund for the bank. Thus deposit is the lifeblood of the joint venture commercial banks; the success of a bank highly depends upon the extent to which it may attract more and more deposits. As deposits are borrowed amount from depositors, it is liability for the banks.

## b) Loan and Advances

Loan and advances are the main sources of income and most profitable assets to a bank. Any bank is always willing to lend as far as possible since they constitute the larger part of revenue. Any commercial bank hardly lends money for a long period. The commercial banks lend money for a short period of time that can be collected at a short period. The commercial banks never bounded to provide long-term loan because the banks have to synchronize the
loans and advances with the nature of deposit they receive. The banks provide loan and advances against the personal security of the borrower or against the security of the immovable and movable properties. The banks provide loans in the various forms like overdraft, cash credit, direct loan and discount bills of exchange.

## c) Investment in Government Securities, Shares and Debentures

Securities are the source of long term financing that involve shares and debenture issued by the government. The banks can extend credit by purchasing government securities i.e. share and debentures issued by government. However it is not major sources of income.

## d) Investment on Other Company's Shares and Debentures

The joint ventures commercial banks also utilize their funds to purchases the shares and debentures of other companies. There are two motive behind investment of funds on other company's shares and debentures by the banks the first is to earn profit and the next is to meet the direction of Nepal Rastra Bank.

## e) Assets

Every bank has its own assets. The resources or properties owned by the business are known as assets. Some examples of assets are cash, building, land, furniture, goodwill etc. such assets are owned by the banks to get current or future benefit.

## f) Liabilities

The amount or money payable by the banks to the outsiders within a certain period of time is known as liabilities of the bank. Liabilities are the financial obligations for the bank that must be met within a stated time. Liabilities should not be taken negatively as they are the sources of assets.

## g) Balance Sheet

Balance sheet is one of the important accounting statement which shows the true financial position i.e. position of assets and liabilities of organization. There are two side of balance sheet they are capital and liabilities and assets and properties sides. Thus balance sheet includes all assets, liabilities and capital.

## h) Retained Earning

It is the part of company profits which is not paid out in taxes or dividends, but it is reinvested into a business. Retained earning may be used to finance fixed investment to finance takeovers in other firms to increase liquid assets.

## i) Bank Guarantee

It is used for the sake of the customers in favour of the other party up to the approved limit. Generally a certain percent amount is taken as margin from the customer and the customer's margin account is credited.

## j) Letter of Credit

It is issued by the bank on behalf of the buyer in favor of the seller expressing its definite undertaking to effect payment for the specified amount provided the seller companies with the terms and conditions stipulated in letter. It is also known as importers letter of credit since the bank of importer opens it. However, the same import $\mathrm{L} / \mathrm{C}$ is known as export $\mathrm{L} / \mathrm{C}$ to exporter's bank and exporter himself. This clarifies the fact that exporter and importer do not open separate $\mathrm{L} / \mathrm{C}$ for the trade of same commodities.

## k) Off Balance Sheet Transaction:

In fact bank guarantee and letter of credit refers to off balance sheet transactions. It is also known as contingent liability. Contingent liability pinpoints the liability which may or may not arise during the happening of
certain event. It is non funded remunerative facilities but more risky than the funded until adequate collateral are taken.

## 1) Arithmetic Mean

The sum of all the observations divided by the number of observations is called arithmetic mean.

## m) Standard Deviation

The standard deviation is defined as the positive square root of the arithmetic mean of the squared deviation from their arithmetic mean of a set of values. It is denoted by $\sigma$ (small sigma).

## n) Co-efficient of Variation(C.V.)

The relative measure based on the standard deviation with respect to arithmetic mean multiplied by 100 is known as the co-efficient of variation. By the help of C.V. two distributions can be compared to find out their variability. Less the C.V. more the uniformity, validity consistency etc. and vice-versa.

## o) Correlation

Two variables are said to have 'correlation' when they are related so that change in the value of one variable makes change in the value of other variable. Correlation analysis helps in determining the extent to which the two variables are correlated but it does not tell us about causes and effects of relationship among the variables.

## p) Ratio Analysis

Ratio refers to the numerical or quantitative relationship between two items or variables. In simple language, ratio is one number expressed in terms of another and can be worked out by dividing a number with the other. So, it is calculated by dividing one item of the relationship with the other.

## q) Off-Balance Sheet Activities

Off-balance sheet activities involve contacts for future purchase and sale of assets and all these activities are contingent obligations. These activities are now recognized as assets and liabilities on balance sheet. Some good examples of those are letter of credit (LC), letter of governance, bills for collection etc.

### 2.1.2 Loan (Definition)

Oxford Advanced Learners Dictionary defined the term loan as A thing that is lent especially a source of money (Oxford Learner's Dictionary, 1997). Similarly Webster's dictionary defined loan as Something lent a sum of money lent often for specified period and repayable with interest (Agnes, 2000:821). Financial institutions lend money out of deposits they have received. They should increase money by advancing loan since they have to pay interest on deposits. It is apt to provoke Deposits are the children of loans and loans are the children of deposits. Banks do not keep cent percent reserve against deposits for meeting the demands of depositors. As all depositors do not need money at the same time bank with a small reserve satisfy their demand whenever demonstrated and grant loan from excess reserve than depositor head to needy feasible subscriber.

Loan is financial assets resulting from the delivery of cash and other assets by a lender to a borrower in return for an obligation repay on specified date on demand. Loan usually comprises:
a. Consumer loan, overdraft and credit card loan.
b. Residential mortgages
c. Non-personal loan. (such as commercial loans to business, financial institution, government and their agencies)
d. Direct finance leasing
e. Other financial arrangement that are in substance loans.

## Types of Loan and Advances

Commercial banks offer two types of credit facilities namely funded and non-funded facility. In the case of funded facilities offered, cash is involved such as in OD (Overdraft) facility, Demand Loan, Time Loan, Short Term Loan, Long Term Loan etc. And in the case of non-funded facility, cash is not involved but only the contingent liabilities increase. LC and Guarantee facility offered by banks are non funded facilities. Normally, commercial banks offer short-term facilities, as the major portion of deposits they maintain are of short term in nature. Short Term facilities can be on secured basis (where there is tangible security) and on unsecured basis (without any security).

## Classification Based on the Nature of Loans

Overdraft Facility: A limit is assigned in the current account of the customer up to which the customer can overdraft his account. An overdraft account is a fluctuating type of account and therefore the customer can deposit when he has money and overdraw when he requires.

Clean Advances: Clean advances are unsecured loans granted for a short period and after taking into account the net liquid resources of the borrower. After study of character, capacity and capital of a party and after determining that the borrower can repay at a short notice, the party is considered eligible for such credits. Under this a customer is allowed to overdraw his account without having to provide security to the bank. Such overdrawing is allowed on exceptional case and not to regular basis.

Demand Loan: Demand loan is a working capital loan provided for not more than a year. It is a revolving type of loan, which once settled is reinstated by the settled amount. This means the customer can settle and withdraw as many times as he pleases within the expiry period of the loan. When he needs the fund he must give a demand letter and for settlement as well he must give a request letter to settle the desired amount.

Term Loan: It refers to money lent in lump sum to the borrowers. It is principal forms of medium term debt financing having maturities of 1 to 8 years. The term loans are usually repaid in level amounts over the period of the loan, either a large final 'Balloon payment' or just a single 'Bullet payment' as maturity. Banks can accommodate repayment patterns to the anticipated cash flows of the borrowing firms. The rate of interest on it is sometimes fixed not only for the life of loan but also as per prime rate.

The conditions of a term loan are likely those of most unsecured bonds. Barely and Myers urge that the banks loans with maturities exceeding 1 year are called term loans. The firm agrees to pay interest based on the bank's prime rate and to repay principal in the regular installments. Special patterns of principal payments over time can be negotiated to meet the firm's special needs.

Bridge-Gap Loan (Share Loan): The approving institution cannot disburse the facility of loan due to incompletion of legal and other formalities though term loan is approved to some customers and bridge-gap loan can be asked in such situation. loan policy urges that bridge loan and share loan can be given only to first class known parties up to $50 \%$ exposure of the value of blue chip a class listed companies' shares. Interest may be cost of fund $+3 \%$ to $16 \%$. Loan period is maximum up to 1 year. The shares offered as collateral should be transferable immediately.

Hire-purchase Financing (Installment Loan): Hire-Purchase loans are characterized by periodic repayment of principal and interest over the maturity period of the loan. Hirer agrees to take the goods on hire at a stated rental including the repayment of principal as well as interest with an option to purchase. It can be extended on secured or unsecured basis having maturities of five years or longer

Majority of installment loans are made at a fixed rate with the interest rate remaining constant over the life of the loan. A recent survey of commercial banks indicates those banks are planning to offer installment loans on a
variable rate basis. It can be secured and unsecured as well as direct and indirect installment loan.

Time Loan: Time loan is also a working capital loan, given for a period of less than one year and has a fixed maturity date. Time loans can be one time specific: the borrower is not allowed to withdraw once settled, and revolving: once the loan is settled, further drawing is allowed within the validity of the limit.

Trust Receipt Loan: Trust Receipt Loan is provided to importers against import LC established by the bank to make payment for the goods arrived through the LC. Each TR loan is treated as a specific time loan having fixed maturity date i.e. 30,60 or 90 days.

Pre-Shipment Loan: It is a time loan of revolving nature provided to exporters to manufacture goods for export, against the security of an Export LC. Once the export houses receive letter of credit from the importer, it may approach the bank for financing the purchase of raw material, cost of labor and overhead, settle up front charges or to pay sub-contractors. Such type of finance is known as pre-shipment finance. Before pre-shipment finance bank considers credibility of the buyer, credibility of buyer's banker and credibility of the foreign partner if any.

Post Shipment Loan: After completion of manufacturing of goods, the exporter ships the goods as per the LC terms and submits all required documents to the bank and requests for a loan which is called post-shipment loan (as it is provided only after shipment of gods). Post shipment finance entails less risk when compared with pre-shipment finance. In case of post shipment finance, the exporter receives the export LC first. He approaches the bank only after manufacturing of goods or buying the goods from the market and making shipment according to the terms and conditions of the LC. The
client can send the documents for collection in which case he may have to wait for receiving the funds for at least three four weeks. So as an alternative, the client may request the bank to negotiate the documents and purchase the same and thereby make the cash available to him immediately.

Mortgage Loan: Loans extended against the strength of fixed assets (mortgaged properties) like land and building is known as mortgage loan. Mortgage loan can be in the form of term loan as well as overdraft which entirely depends on the borrower's request. The main feature of this type of loan is that the borrower need not have a firm to borrow. His earning source and value of property will be sufficient to obtain such loans.

## Bill Purchase and Discount:

Purchasing of bill of exchange of customers to which favor limit is prescribed, is known as purchasing of bills. Such bills may be either documentary bills of which contains documents of little to the goods (like airway receipt, airway bill, bill of landing, truck receipts) or clean bills of which do not have any documents concerning with title of goods. Indeed, it is form of advance granted by discounting the bill keeping the bill as security. The holders of bill of exchange can come to bank for discounting their bills when they need cash. Therefore, it is urged that a good bank manager knows the difference between a bill and mortgage. The banks also purchase cheques of approved customers.

## Classification Based on Sector-Wise Loan Distribution:

Real Estate Loan: A domestic office loans secured by real estate is considered as real estate loans. Generally real estate loans are classified into five sub categories: Construction and development loans, multifamily residential real estate, home equity, 1 to 4 families residential, farmland and other real estate loans. These loans are classified separately because such loans are subject to different risks and regulations in the USA. Real estate loans are the most profitable type of loan at the time of prosperity and it represents the highest percentage of total loans in the commercial banks of the US.

Commercial or Industrial Loans: Commercial or Industrial loans are extended to finance the business of a borrower. It can be for financing the working capital need, purchase of fixed assets and various other seasonal or miscellaneous requirements. The financing can be for short term and long term needs.

Individual or Consumer Loans: Consumer loans are extended to individual borrowers. The average size of consumer loans is relatively small. The maturities of such loans are 1 to 4 years. Consumer loans are provided to finance durable goods in hire purchase like car, freeze, washing machine etc. Nowadays, banks finance the education, medical care, travelling expenses etc. of individuals. Consumer loans are considered risky because the goods financed through consumer lending cannot be sold in the face value and neither there exists a secondary market for such goods. Hence, the interest rates on such loans are high in comparison to other types of loans. Consumer loans are normally repaid in installments consisting of principal and interest on EMI (Equal Monthly Installment) basis. As the interest is also paid every month, the actual cost of fund to the borrower comes to be higher than other loans.

Agriculture Loans: Agriculture loans are provided to finance the planting and harvesting of crops. Such loans are quite similar to commercial and industrial loans because loan is provided to finance the short term seasonal credit need of the customers. The loan is utilized in purchase of seeds, pesticides, fertilizers, wages of farm workers and various other production costs. The loan is repaid when other crops are harvested and sold. Long term financing is extended for purchase of live stock, tractor, combine machines, equipment and land. Agriculture lending is considered extremely volatile because the price of agro products rises and falls depending on the demand and supply of national and international markets.

Loans and Leases in Domestic Offices: In the USA, lease financing is the most important single source of funds to support business expenditures for capital investments. Lease financing means letting or renting building, a piece of land or equipments for a fixed period against which the lessee pays a lease rental fee for that period. The regular fixed rental fee is paid on monthly, quarterly, half yearly or yearly basis as per the agreements between the lesser and lessee. When the lease contract ends, the assets revert to the lesser. A lessee is an individual is a firm which uses an asset without owning it.

## Classification Based on Security

Secured Risk Loan: when Loan is fully secured by $100 \%$ cash margin or by instruments equivalent to cash such as Fixed Term Deposits, Foreign Currency Deposit, Deposit under certain Saving Scheme, Provident Fund Accounts etc. held in the banks own account, it is considered as secured risk loan.

Sovereign Risk Loan: When loan is provided against government security such as National Savings Bond, Development Bonds, Treasury Bills issued by NRB or against government guarantee, it is considered as sovereign risk loan.

Bank Risk Loan: When loan is provided against the security of fund held in some other bank, it is considered as bank risk loan. Loan against Fixed Term Deposit certificate issued by another bank or loan against Guarantee or Standby LC issued by local or foreign bank, loan against funds placed at call with total or foreign bank etc. are the examples of Bank risk loan.

Unsecured or Normal Business Risk Loan: When loan is provided against the security of borrower's Account Receivables, Inventory, Fixed Assets, Personal Guarantee, or Promissory Note, it is considered as unsecured risk loan. The security can be only one of the examples of Bank risk loan.

Casual Risk Loan: When negotiable instruments are purchased casually such as cheques, drafts, bills etc. and where the instrument itself serves as the security for the advance, it is considered as casual risk loan. Regular facility is not provided for such purchase facility.

Clean Risk Loan: Loan and overdrafts provided without any security in a casual way falls in clean risk loan.

Credit Card Risk Loan: Advances provided to credit card holders fall in this category.

### 2.1.3 Features of Sound Lending and Investment Policy

The income and profit of the bank depends upon its lending procedures, lending policy and investments of its funds properly. The greater the investment made by the bank, the higher will be the profitability. A sound and effective investment policy is significant and crucial for the bank to earn higher profit and encourage proper saving for the developing and poor country like Nepal.

The basic features of sound lending and investment policy are as below;

## a) Safety

A bank should be very much conscious and careful in investing procedures and sectors. The banks should never invest its funds on those securities, that are too much volatile because a small alter may cause great loss. The banks must invest funds in speculative businessman who may be bankrupt at once and who may earn million in a minute also. Similarly while making investment, bank should accept such type of security, which are durable, marketable and which has high market price.

## b) Stability of Income

Stability of income should also be considered while making investment. The banks should consider stability of monetary income and stability of purchasing power. However emphasis upon income stability may not always be constant with other investment principle.

## c) Profitability

Profit is essential to every bank for its survival and continuity. The bank should invest its funds in such sector from where maximum profit can be generated. The joint venture commercial bank can maximize its volume of wealth through maximization of return on its investment. The profit of joint venture commercial banks depends on the interest rate volume of investment and nature of investment in different securities.

## d) Liquidity

Liquidity generally refers to cash or any assets that can be converted into cash immediately. Similarly, liquidity refers to that state or position of a bank to meet all of its obligations. In other words, it refers to the capacity of the bank to pay cash against deposit. People deposit money at the bank in different account with confidence that the bank will repay their deposit money when they need to maintain such confidence of depositors.

## e) Legality

Illegal investment activities may cause problem to the investors. In the same way if the securities are issued illegally, it also may cause problem to the investors. Therefore all the joint venture commercial banks should operate the investing activities by following the directives of NRB, Ministry of Finance and other concerned authorities.

## f) Diversification

The banks should not grant the loan in only one sector. To minimize the risk a bank must diversify its investment on different sectors. It means banks should follow the portfolio investment policy. Diversification of loan helps to sustain loss according to the law of average.

## g) Tangibility

A commercial bank should prefer tangible security to an intangible one. Though it may be considered that tangible property does not yield on income a part from it intangible securities have lost their value due to due price level inflation.

### 2.1.4 Objectives of the Loan Policy

Credit is always a matter of judgment, based on one's own experience amount convictions. There can not be $100 \%$ correct approach. The ultimate result may be either good or bad of loan approval, and from such experience one has to arrive a proper credit policy. Encouraging maximum number of loan of small amount ensures liquidity and with less incidence of bad loan. Concentration in particular type of loan should be avoided. Necessary conditions have to be incorporated the sanction letter of loan for safety and liquidity of loans performing loans have multiple benefits to the society where as none performing loans erodes even existing scare loan. The objectives of a written loan policy are to assure compliance by lending personnel with the bank's policies and objectives regarding the portfolio of loans, to provide personnel with a framework of standards with which they can operate (Dahal, B. \& Dahal, S., 2002:115).

## The objectives of sound credit policy are as follows:-

## a) To have performing assets

Performing assets are those loans that repay principal and interest to the bank from the generated cash flow. The basic objective of sound loan policy is
to maintain the financial health of the bank which results in the safety of depositor's money and increase in the returns to the shareholders.

## b) To Contribute to Economic Development

Sound loan policy says that loans are given to the productive sector which delivers multiple benefits to the society as direct and indirect employment generation. FCY earning capital creations, tax to the government, uplift the living standard of the people and many more

## c) To Give Guidance to Lending Officials

There should not be any discrimination whether burrower deals with one officer or another and one branch or another. There should be a uniform standard procedure throughout the organization which helps in consistent judgment by the individual loan officer.

## d) To establish a Standard for Control

Periodic follow up is essential for proper implementation of any loan policy. A sound loan policy helps in identifying the deviation between actual and standard performance along with corrective actions to be taken.

### 2.1.5 Components of Loan Policy

Normally the established loan policy consists following components (Dahal, B. \& Dahal, S., 2002: 116).

## a) Loan Volume

The policy should contain the credit deposit ratio that the bank has to maintain. Credit deposit ratio is much influenced by the behavior of the bank's liabilities. High volatility of deposit and borrowing will result low loan volume and vice- versa. Bank should fix the limit of loan amount granted to single borrower as per the regulatory authorities. Under founded credit and non founded credit banks grant maximum up to $25 \%$ and $50 \%$ of their core capital respectively as loan.

## b) Loan Mix

Banks should grant loans to various sectors for its long term survival. It should not put all its funds in one sector even though the sector is doing well. Investment in only one sector may cause bankruptcy of the bank. Even if two individual borrowers of two sectors have same level of risk, the portfolio risk is minimized due to diversification.

## c) Pricing

Being the custodian of public money, the banks should not take the risk beyond certain level irrespective of how high the lending rate is. There is practice in fixing prime lending rate. Based on the risk, certain percentage is added in the prime lending rate. The rate follows higher the risk, higher will be rate and vice versa. The policy should specify whether the bank adopts fixed or floating or mixed type of interest in its loan portfolio. In essence, pricing should be fixed in a manner of profit. Profitability in loan is calculated as-

$$
\mathrm{P}=\mathrm{I}-\mathrm{O}-\mathrm{C}-\mathrm{D}
$$

Where,

$$
\begin{aligned}
& \mathrm{P}=\text { Profitability } \\
& \mathrm{I}=\text { Interest inclusive of other charges, if any } \\
& \mathrm{O}=\text { Operating expenses } \\
& \mathrm{C}=\text { Cost of fund } \\
& \mathrm{D}=\text { Expected default loss. }
\end{aligned}
$$

## d) Lending Authority

It is one of the most critical aspects of loan management. The lending authority of bank adopts both centralized and decentralized approach. A certain limit is given to the branch office staffs and beyond the branch limit the proposal should be submitted to head office. The last lending authority of bank is the board of directors having cap like single borrower limit prescribed by NRB. Nowadays some banks tied up this lending authority on the basis of the knowledge and experience of lending staffs but not on the basis of level of the staffs.

## e) Securities

The loan policy should prescribe the acceptable and non acceptable securities of the bank. Some banks accept bullions and personal guarantees as securities, where as other go more forwards than that and demand collateral like land, building etc. likewise, the policy should cover the selection of valuators. The factors like marketability, convenience and transferability should be considered while selecting the securities.

## f) Risk Analysis

The policy should state the acceptable criteria of the borrower for granting loan. The policy should specify the acceptable liquidity, leverage, coverage, efficiency, and profitability ratios so that there can be consistency in the risks perceived by all lending officials.

## Loan Administration and Control Mechanism

The administration of loan portfolio may be divided into the general management objectives of planning, organizing and controlling lending activities (Johnson et. al., 1940: 133). Planning should entail consideration of risk and return of loans that meet profit objectives and allocation of loan assets among consumer, commercial, mortgage. Organizing refers to the passing of planned goals and objectives into actions through definition of policies as well as establishment of support function and dissemination of service where as controlling covers making and monitoring loans and keep on performance standard and to attain profit objectives and goals. In certain countries there is 'four eyes' concept. A person cannot do anything. There should be involvement of at least two official or two departments (Dahal, B. \& Dahal, S., 2002: 119). For instance, separate department for separate functions like credit approval, documentation, disbursement and so on facilities in finding mistakes of one department by others. The banks need to take various securities so that in case of default loan such securities can be disposed to recovery of loans.

## Loan Classification and Provisions

At the time of disbursement every loan seems to be good but as the time passes the good loan may turn into bad loan. Based on the health of loan they should be classified and provided accordingly. Net loan should be shown instead of gross loan in the financial statement. The bank should comply with statutory regulation relating to loan classification and provisioning.

### 2.1.6 Principles of Loan Policy

The loan policy varies according to the risk involved in the project. There are some parameters under which a bank can develop some policy with regard to credit. Cautions in loan policy are essential to carry the business of lending consistently. The principles of loan policy are-(Vaidya, S., 2001:108)

## Acceptable Borrower

The bank must have confidence in the customer's ability to run business. Banker must assess burrowers performance on the basis of his/her performance on business activities whether the borrower is truing to get loan for the speculative activities.

## Acceptable Business

The business that the borrower want to run must be within the framework of government, Nepal Rastra Bank and bank's own policy.

## Acceptable Purpose

The maturity time of the loan must be acceptable to the bank. There must be agreement between both parties regarding the maturity time. The bank should not advance loan for long period even though the project is viable and profitable.

## Acceptable Securities

Banks grant loan and advance to the borrower by keeping some securities. Adequate value of security ensures the recovery of loan at right time.

A genuine borrower always ready to give any type of security or demand by the bank, as he feels that his security is only for time period until he repays the loan.

## Acceptable Repayment Programme

The basic principal of the bank will be safe return of the credit in the time so the banks normally advance loan for short period. The banks grant loan only if the repayment programme is acceptable to the banks. Therefore, the successful lending depends upon careful selection of the customer, proper appraisal of his credit need and adequate control on the terms and condition of the loan granted.

### 2.1.7 Commercial Loan Analysis

Commercial loan officers numerous financial factors to uncover a company's financial weakness. Their evaluation begins with a general analysis involving an examination of key financial trends and factors. When one of those factors not meeting the industry norm, commercial loan officers must perform a more detailed analysis to uncover the causes.

## a) General Analysis

The general analysis consists of general trend analysis, and separate analysis of credit, collateral, capital, and capacity. General trend analysis provides loan officers with a quick indication of a company's performance in several key areas: sales, operating income, net income, selling/administrative, working capital, and cash flow. Five year trends of these data permit loan officers to determine quickly whether a company's performance has been improved, declined, or remained stable. Credit, capital and capacity analysis involve a comparison of a company's financial ratios against industry standards.

## i) Credit

Credit analysis measures a company's ability to repay its short and long term obligations. Thus, it is one of the most important factors considered by
loan officers. The credit analysis really consists of efficiency, profitability, and liquidity. Inventory turnover, receivables turnover, fixed assets turnover, total asset turnover, fixed asset turnover are primary efficiency measures. Profitability analysis considers operating margin, return on assets, and return on equity, while liquidity analysis includes the current and quick ratios. Comparison of company's performance vis-à-vis the industry reveals much about the company's relative strengths and weaknesses. For example, if all four of a company's profitability ratios are above the industry norms, profitability is evaluated as strong. If none of them are above the norms, profitability is poor. Intermediate results lead to either normal or weak conclusions. In arriving at an overall opinion of credit, loan officers simultaneously consider a company's profitability, efficiency and liquidity positions.

## ii) Collateral

Collateral analysis proceeds to examine the relationship between the value of all assets and pledged assets. To estimate their value, loan officers appraise book value, age, and condition of assets. Generally, if available collateral (collateral value-pledge assets) is much larger than the loan requested, collateral is strong. Lower levels of available collateral lead to normal, weak, or poor conclusions.

## iii) Capital

Capital analysis provides an indication of a company's leverage position. Long term debt to total assets, total debt to total assets, interest coverage, and fixed charge coverage are the primary factors. If all four measures of capital are above the industry standards, a company's capital position is strong. If they are all below, capital is poor. Otherwise, capital is normal or weak.

## iv) Capacity

Capacity analysis measures the degree to which a loan can be supported by a company, using the same ratios as capital analysis. However, the ratios
included the actual amount of the loan requested by the borrower. Thus, they reflect the leverage position of the company with the additional debt burden.

## b) Detailed Analysis

A detailed analysis is performed whenever a general analysis indicates a weakness. For examples, if inventory turnover is below the industry average, commercial loan officers examine additional factors such a source prices and gross margin. Moreover, for any measure that is below the industry norm, loan officers examine its historical trend to determine if the condition is temporary or chronic. As problem areas are identified and examined the loan officers accumulate loan covenants, or restrictions, which become part of the final loan agreement. For example, if long term debt to total assets is above the industry average, a loan officer may recommend reducing long term debt. A covenant may also be written prohibiting additional long - term borrowing. Thus in addition to providing more information about a company's weakness, low level analysis pinpoints are as that require covenants.

### 2.1.8 Business Loan Decision Making Process

When loan officers, credit analysts, and loan review committees evaluate a commercial loan application, they combine financial projections with qualitative information. The loan granting decision is based on the analysis of a firm's historical and performance and financial information and on the interpretation of qualitative information concerning its product markets and industry characteristics, plus the overall performance of management. In practice, the evaluation of a loan application is based on the information presented in financial statements plus any qualitative information, such as the quality of management, the ability to repay the loan, and the availability and value of collateral.

Business loan decision making process can be shown from the following chart.

Figure : 2.1

## Business Loan Decision Making Process



Source: Using an expert system with inductive learning to evaluate business loans (Show and Gentr), vol.17, number 3, Autumn 1988 (Page 47)

### 2.1.9 General Principal of Good Lending

Bank collects scattered saving from the public and invest those saving in different securities. In between these intermediations bank earns a profit from difference in interest rates paid and charged. Thus the income and profit of each bank and every financial institution depend upon its lending policy in different securities. The greater the credit created by the bank, the higher will be the profitability. Banker is essentially a dealer in lending the funds of others. But it is a risky business. Therefore a banker follows a cautious policy in the matter of lending and generally governed by the well known principles of sound lending which are explained below.

## a) Principle of Safety Fund

The main business of banking consists in borrowing various types of deposits such as current saving and fixed and lending such deposits to needy borrowers in the form of advances and discounting of bills. This obviously implies that safety of such funds should be ensured. Otherwise the banker will not be in a position to repay his deposits and once the confidence of the depositors is shaken, he cannot carry on the banking business.

If the banker has to ensure safe lending, he has to look to the three C's of the borrowers namely character, capacity and capital. Character of the borrower is important because that determines his willingness to repay the loan. His capital and capacity to run the business successfully determine his to pay. The safety of the loan depends on both his capacity to repay and willingness to repay.

## b) Principle of Liquidity

Liquidity refers to that sate or position of a bank that pronounces its capacity to meet all of its obligations. Shortly, it refers to the capacity to pay cash when demanded by depositors. Moreover, banking is a serious business and people deposit money at the bank in different account with confidence that the bank will repay their money when they need to maintain such confidence of
the depositors, the bank must alert while lending its excess fund in different securities, so that it can meet current or short term obligation when they become due for payment.

## c) Principle of Profitability

Commercial banks have obtained funds shareholders and naturally if dividend is to be paid on such shares earning profits can only pay it . Even in the case of public sector banks although they are service motivated they will have to justify their existence by earning profits. From out of the revenue earned the banker has to pay interest on deposits, salary to the staffs, meet other establishment expenses, build -up reserves and the balance must permit the payment of dividend to shareholders. However, the banker will not give undue importance to this aspect because a particular customer may offer a higher rate of interest but and advance make to him result in a bad debt. Therefore for the sake of profitability, the other two principles, liquidity and safety cannot sacrificed.

## d) Principle of Suitability

Although to achieve the goal of bank, it should invest but it should know the reason of need of loan. This has becomes a vital task for each bank. if borrower misuse the loan granted by the bank, they can never be able to repay loan. In order to avoid such. Circumstances loan should be allowed to the suitable borrowers and detailed information about the scheme of the project of activities should be examined before lending.

## e) Principle of Diversification

Banker should try to diversify loans as far as possible so that he may minimize his risk in lending. The bank must not invest their funds in only on sector but to the various sectors so that when something goes wrong in one particular sector others will recover. Moreover, diversification spreads risk and prevent from being insolvent.

## f) Principle of Legality

Any organization operating in the country should follow the rules and regulations of the country. For this purpose a bank must follow the rules and regulations as well as different directives and guidelines issued by NRB, Ministry of law and other while mobilizing the collected funds.

### 2.1.10 Loan Approval Procedure

A loan is approved by the approving authority only after being convinced that eh loan will be repaid in the future along with interest. The approval is based on available information for loan appraisal. Disbursement procedures works after the operation of loan approval process under lending conditions and disbursement procedures. The process involved in the loan approval is given below (Dahal, B. \& Dahal, S., 2002: 121).

## a) Application

Loan application is the primary source of information given in a systematic manner, required for assessment of the proposal. It includes various documents of borrower along with project proposal, historical financial statements and documents about incorporation with legal existence.

## b) Interview

It is the knowledge of two way traffic. It is conducted to extract essential and critical information from the borrower since the man is creature of egos and emotions. It should be done in friendly and positive manner. During the interview, the interviewer should get more information of loan proposal, loan amount, repayment source, history of business, repayment schedule and bank relationship.

## c) Credit Analysis:

Analyzing a credit required includes analysis of the character, capacity and capital position of the potential borrower and evaluation of those features in
terms of the current economy and the economic conditions predicted over the loan period (Johnson et. al., 1940: 174). He further says the basic questions the loan officer attempts to answer in the credit analysis include: what is the character and managerial ability of the borrower?, what is the borrower's capacity to repay the loan as requested?, what is the capital position of the borrower in case the borrower experiences difficulties and how will current and predicted economic conditions affect the ability of the borrower to repay the loan?

Johnson and Johnson have presented 'Credit Analysis' under the following eight steps are acquiring basic information about the borrowers, acquiring basic information about loans, making preliminary review of risk, acquiring more complete information, making a refined analysis of the risk, making an overall decision, structuring the loan and varying the critical information.

## d) Historical Analysis:

It denotes ex-post analysis which about past financial statement and business risk. Further, it depicts the financial performance of management and business risk analysis supports to measure such as: supply, demand, production, collection etc. realized in the past and how management settled them. It discloses the borrower's likely success or failure in repaying the debt in future. Financial institutions have practiced analysis of 5 cs of credit.

Similarly, the fifth ' C ' of credit indicates the characteristics of the borrower which covers borrowers' personal traits like norms values, ethic and honesty by which lending decisions get shape. Character is composition of fact full answers to queries, reliable purpose, responsibility to repay loan on time on the assumption of lending officials. Only good rated borrower gets priority from lending officials.

## e) Forecast and Risk Rating System:

The analyst has to forecast impending major risk based on the finding of historical analysis on the present considering the present and foreseeable future
environment. The analyst has to disclose the extent to which inherent risks will be mitigated and how unmitigated risk can be covered. Credit Analysis tells about:

- Releasable loan and non-releasable loan.
- Ranking of the released loans from the standpoint of riskyness (low to high risk).

Aforesaid clues determine the rate of interest to be charged and value of securities to be obtained. Two types rating system have been evolved for forecasting and rating risk.

## i) Loan Documentation

After obtaining approval from the related authority credit relationship officer need to be prepare all security documents before disbursement of loan. According to the nature of loan documentations are to be prepared. Generally, mortgage deed, loan deed, personal guarantee, promissory note, letter of hypothecation, assignments of bills receivable, debit authority letter, disbursement request letter, repayment schedule, insurance paper, final valuation report, counter guarantee, letter of set off, etc are prepared as loan security documents.

### 2.1.11 Loan Disbursement

In bank, a request for disbursement of loan from the borrower with an authorized signature should be obtained for disbursing amount of loan. A bank personal verifies the signature of borrower and the requested amount is credited to the respective borrower's account

## Loan Disbursement Procedure:

Disbursement procedures for different types of loan are discussed below:
a) Long -Term Time Loan: The fund is disbursed as per the schedule normally fixed advances by debiting long -term loan account.
b) Short-term Time Loan: The fund limit is disbursed at once by debiting time loan account and normally crediting current account.
c) Demand Loan: The loan is disbursed as and when demanded by the borrower debiting demand loan account and by normally crediting current account
d) Overdraft Loan: A borrower can draw a cheque in current account up to the approved limit at any time

### 2.1.12 Loan Follow-Up

The loan follow-up can simply be understood as a post assessment of the approved loan. The Bank personal keep close contact with the borrowers to know the developments that may hinder the repayment of loan. At the same time loan follow-up helps to build up a good rapport with the borrowers that ultimately may result in good future prospects for the bank itself.

### 2.1.13 Credit Renew

Bank provides the facility of renewal of loan to the borrowers based on the utilization of loan amount without any adverse record, with regular interest payment and also if the bank is satisfied with the transaction of the borrower throughout the year.

### 2.1.14 Security

Bank asks both primary and secondary security from the borrower. The securities are viewed on various grounds such as possibility of marketability, valuation, validity, enforcement and other necessary economic considerations. In bank, non-payment of loan sometimes takes place because of wrong valuation of securities or the wrong assessment of loan requirement itself, To sum up, it is found that all the aspects of loan management such as loan approval, loan document, loan disbarment, loan follow-up etc in bank have been paid proper attention. Based on discussion on various aspects of loan
management process, it can be said that Bank is able to perform loan management satisfactorily till date.

### 2.1.15 Pricing of Loan

Pricing commercial loan is a vague process that needs estimating the return the bank should earn on a particular loan and then forming a loan agreement that will generate the desired return.

The yield on loan covers not only the interest rated charged for borrowed funds but also the charges a bank makes for commitments and compensating balance. It certain cases, service fee income also fall under total return.

The interest rates can either be fixed or variable (floating) rate terms to check elevation in the general level of interest that increases bank's cost of fund. Loan will be made on fixed rate if there is no possibility of rise in interest rate. Major pricing terms are:
a) Fixed Rate:

Fixed interest rate is agreed at organization until maturity if there is no chance of incline in rate of interest.

## b) Variable Rate:

Depending on the base rate varying interest rate is installed. It is classified as:

- Prime base: Highest graded customer obtains it
- Prime Plus: Prime rate plus a fixed percentage is charged under it.
- Prime times: Under it the rate will mount (or dismount) by the multiple and
- Prime rate times a fixed multiple.
- Other base rate: Beside the base, it is identical to prime rate.
- Caps and floor: The highest and lowest limit up to which loan can be released.
- On variable rates are caps and floors respectively.


## c) Commitment Fees:

It is levied by bank to customer for agreement to availed fund. It is charged on used and unused portion of a credit line.

## d) Compensating Balances:

It is deposit balance to be kept as per the deed of lender until the over of loan period. It is to be kept on average rather than at a strict minimum.

### 2.1.16 Structuring the Loan:

Structuring the loan is not separate from 'Credit Analysis'-it is the final stage of the overall analysis. The loan officer uses the information gained in the credit analysis to construct to make it a bankable (Johnson et. al., 1940:180). Credit Analysis discloses the element of risk, needed fund for applicant and likely timing of borrowing. Lending officer puts above stated with loan proposal loan proposal and this helps in deciding the types of loan complying with applicant and banker's needs as well. Repayment schedule and protective covenant need to be prepared to protect bank's position from default risk. Based on credit analysis, either secured or unsecured loan can be given. Collateral provides additional source of repayment during default and limits the borrowers' power to borrow from others.

## a) Loan Agreement and Protective Covenants:

Once the decision has been made on whether the loan is to be secured of unsecured, the next steps in the construction of a loan agreement. A written loan agreement details all of the expectations of the bank concerning performance on the loan.

Loan agreement comprises the terms - description of the loan, representative and warranties by borrowers, protective covenants, condition of lending and remedies respectively. Protective covenants is pivot factor of loan agreement, the loan officer sets conditions to protect bank against potential loan losses or risks.

## b) Loan Participation:

Participation involves two or more banks jointly providing credit to a single borrower. It is used since it reduces risk. Bank meets excess than lending limit to fulfill the customer's request. Loan participation can either be upstream or down stream. Loan originates in a large bank and small bank gives fund for a portion of the loan under down stream participation where as a small bank creates the loan and sells a portion of the loan to the large bank in 'upstream participation. Participation in loans requires analysis of the underlying loan and analysis of the originating bank. The lead banks philosophy, lending record and overall performance must be evaluated to determine the risk of participation.

It creates special management problem though it provides an opportunity to lend funds profitably reducing risk through diversification. Careful analysis of the lead bank is necessary to limit risks.

### 2.1.17 Management and Control of Potential Loans Losses:

A poorly administered loan portfolio germinates negative outcomes on earning and capital. Hence, control of loan losses is a crucial task of a bank. Greater provision for loan losses in the 'income statement' is essential to coup the larger loan losses than anticipated situation. It comprises:

## a) Loan Review:

Its main aim is to appraise the value of loan. It can be carried out as internally and externally (i.e. regulatory agencies). The quality and liquidity of each loan is being evaluated herein after studying about collaterals and credit files. The examiner grades loan as substandard, doubtful, loss or other specially
mentioned loans. It further goes as pre loan review, past loan review and exception review. It should be submitted to the board of directors or senior loan manager.

## b) Identifying Problem Loan:

Early traces out of a problem loan increase the possibility of recovery of loan. But with the passes of time such type of hope ceases. Loan officer should be aware about the signs of existed or forth coming problem concerning to loan. These signs are - customer's failure to provide current financial statement as per agreement, loss of borrower rapport (agreement), a recession economy, miscellaneous, illness or death of a principle, marital problem of principal especially divorce, irresponsible behavior of a principal, unexpected loan renewal, overdraft and strike or hostile relating with labor respectively.

## c) Handling Problem Loan:

Once problem loans are identified, search the causes of the customers' difficulties. Wait and see rule operates if customers are co-operative. Otherwise, more aggressive actions should be taken. This may involve ceiling the loan which results either rehabilitation or liquidation of the company.

## d) Rehabilitation:

It converts the weak company into the strong company with loan performance. The bank has to hire management expert or consultant if it likes to provide loan to sound customer properly as possible. It can be done as:eliminate or reduce every possible expense, reduce inventory and review account receivable, dispose of idle or unessential equipment or plant, analyze debt structure and manage cash flow to service debt, seek additional equity capital and prune unprofitable operating division respectively.

## e) Liquidation:

Bank orders liquidation to satisfy creditors viewing the minimal possibility of long-term survival of the borrower. Most of the borrowers extremely resist it. It includes method of liquidation and settlement of debt obligations.

### 2.1.18 Loan Administration:

Loan administration refers to planning, organizing, and controlling of lending activities. Here planning denotes consideration of risk and return to meet profit object along with division of loan assets among consumer, commercial and mortgage. Organization refers to putting goals and objectives into action through definition and processes with support functions. Controlling entails making and monitoring loan as per deadlines supported by corrective actions to be taken in granting loans if necessary.

Loan department carries out all acts relating to loan from initial stage if providing loan to the loan recovery stage. It does such work getting supports from other departments. Excess flow of loan than demand of needy part results failure to the bank. It pertinents two parts:

## The Management for Providing Loan: (disbursement Management):

## a) Proposal for Loan

Printed loan proposal stating essential things should be kept ready and any in coming old or new customer should be given it. Necessary thing in it are: name, occupation, address, kind of loan, amount of loan and securities. After filling aforesaid, it should be given to loan department where it is to be reviewed carefully to know correctness.

## b) Deed of the Loan

Loan department prepares it and includes name, address of the loan taker and year of loan taken, quality of loan, interest rate, loan recovery date
and date of loan agreement(deed) etc. such deed has to be registered from related office.

## c) Securities

It is dealt in under element to be dealt in loan policy. Any reliable securities such as movable or immovable should be kept as security to provide cushion for loan besides cash generated.

## d) Granting Loan Based on Guarantee:

Bank grants loan taking movable or immovable properties of third person if the debtor's security is less than needed or unacceptable or do not meet ban's limit. But all legal process related to it should be fulfilled.

## e) Commitment Deed

After approval of proponent's proposal, loan department prepares separate commitment deed to be signed by the debtor. It portrays loan condition and the rules of bank abiding the borrowers.

## f) Contract of Indemnity

Contract deed of indemnity needs to be prepared by the same department. The loan proponent signs in it and puts his thumbs over it. Such contract abides the debtor to pay debt and any breach of rule makes him liable for payment to bank.

## g) Invoice

The debtor must submit all bills, vouchers, and documents relating to business on time as per demand of the bank.

## The Management for Loan Recovery (Recovery Management):

Bank desires the proper utilization of loan by the debtors. Indeed, recovery of loan denotes sequences lay down to get back loan amount with all due interest including remedial and punitive actions to be taken if necessary.

## a) Audit of Credit:

Credit audit refers to keeping eyes on the granted loan to decide how properly this is utilized. It is done until the loan is recovered. It is done from time to time to know plight of debtor, proper use of the loan and profit-loss position. It comprises:- Verification of loan document, Field visit, Forms of credit to be prepared. Similarly it may be of different forms such as : internal credit audit, external credit audit and credit audit by control bank

## b) Recovery of Interest on Loan:

The borrower should pay interest and principal on time as per the deed of the loan and time assigned by the bank. Otherwise, bank adds interest according to rule of bank. It charges the interest on interest if borrower does not pay the interest and loan in fixed time.

## c) Loan Recovery Process:

Bank recovers the granted loan as per the terms and conditions stared in the deed of the loan. Loan should be repaid either on installment basis or lumpsum basis as per the deed of loan. Loan recovery period can be extended making new agreement if borrower's situation goes beyond his control.

## d) Handover of Securities:

Bank needs to return movable or immovable properties taken as securities from borrower or security received from third persons as guarantee.

## e) Process of Recovering Date-Expired Loan:

The bank recovers principal and interest of not recovered loan as per Commercial Bank Act 2031(1934). After recovering the loan accordingly the remaining cash from sale of property (security) should be returned to the borrower. Good, acceptable, low qualities, doubtable and bad are the classification to loan by NRB.

## f) Maintenance of Data:

A report must be prepared containing clear cut information about loan from release date to recovery data. This works as guideline to current and future management.

### 2.1.19 Payment of Debt and Interest:

Bank collects principal and interest from the borrower on the basis of "Bullet Payment method". A bullet payment method means the method in which interest is received on quarterly basis and principal is upon maturity. Bank charges interest on Ashwin-end, Poush-end, Chaitra-end and Ashadhend.

As per varieties of loan, the payment procedure of debt and interest differs. In case of long-term loan, payment is received in the from of installment and same is applied to hire purchase loan while interest is paid at the stated frequency and principal at maturity is case of overdraft. all those are as follows:

## a) Discount:

Interest is collected at the commencement deducting from loan amount and debt at the maturity. E.g. if debt for Rs. 100000/- has sanctioned @ 15\% p.a., the borrower gets only Rs. $85000 /-$ as Rs. $15000 /-$ is deducted at the source. He pays Rs. 100000/- at maturity.

## b) Collects:

Interest is collected periodically or in arrears on the basis of period the loan is outstanding. It may be as.

## i) Bullet Payment Method:

Under it, interest is paid periodically where as principal is paid at the maturity. Principal along with interest for that period is paid at final date.

## ii) Balloon Payment Method:

It is also known as lump-sum payment method since principal and interest are recovered at maturity or any date when debtor comes to pay loan.

## iii) Installment Method (Amortization Method):

Repayment of loan is made in various installments. Bank may fix installment of principal and interest or only of principal and interest is calculated and collected separately. It is applicable to hire purchase, term loan, priority sectors of which are flown taking movable and immovable property as security.

### 2.2 Empirical Studies

### 2.2.1 Review of Books

Book named "Management Techniques of Bank Lending" has explained about credit management has two main objectives one is credit planning and control at the macro level and another is allocation, follow up and control of credit to individual customers at the micro level. Book named "Banking Management" says that in banking sector or transaction available of loan management and its methodology is regarded very important. Under this management many subject matters are considered and thought for example there are subject matters like the policy of loan flow, the documents of loan flow, loan administration audit of loan, renewal of loan, the condition of loan flow, the provision of security, the provision of the payment of capital and its interest and other such procedures. This management plays a great role in healthy competitive activities. 21 (Bhandari, 2003: 170) yet another dubbed as: loan and advances dominate the assets side of balance sheet at any bank. Similarly earning from such loan and advances occupy a major space in income statement of the bank. Lending can be said to be the visor of bank. However, it is very important to be denuded that most of the bank failures in the world are due to shrinkage in the value of loan and advances. Therefore, risk of non payment of loan is known as credit risk or default risk.

Similarly, in another book the concerned matters are being presented as loan administration involve the earning and management of risk assets. The process of lending takes into consideration of the people and system required for the evaluation and appeal of loan requests negotiation of terms, documentation, disbursement, administration of considering loans and workout, knowledge of the process and awareness of its strength and weakness are important in setting objectives and goals for lending activities and for allowing available funds to various lending functions such as environmental, installment and mortgage portfolio (Johnson et. al., 1940, 132).
H.D. Crosse has mentioned in the book "Management Policies for Commercial Banks", that lending is essence of commercial banking, consequently the formulation and implementation of sound lending policies are among the most important responsibilities of bank directors and management. Well conceived lending policies and careful lending practices are essential if a bank is to perform its credit creating function effectively and minimize the risk inherent in any extension of credit. Before formulating a lending policy, many factors have to be taken into consideration because banks are not the real owners of deposits but rather the custodians of money (Crosse, 1963; 214).

Gitman and Jochnk (1972) in their book "Fundamentals of Investing" compare the bank investment with a vehicle. He says that it is such vehicle into which funds can be placed with the expectation that will preserve or inverse in a value generates positive results. A banker seeks optimum combination of earning liquidity and safety while formulating investment policy.

Klisse. S. Eugene (1978) gives his view in his book "Money and Banking" that in an economy that depends more and more on credit, banks find themselves lending for variety of purposes, sometimes directly, sometimes through other agencies. This wider use of loan is not due merely to a change in attitude of the banks. It reflects also more fundamental changes such as shifts in the public's consumption patterns and in financial investment policies.

In the words of Singh and Singh (1983), the credit policies of banks are conditioned to great extent by the national policy frame work. Every banker
has to apply his own judge for arriving at a credit decision making with keeping in mind of bank's internal credit policy.

Joshi and Shrestha (2058) in the book "Principles of Bank and Insurance" have mentioned the principle of sound investment policy of commercial bank. In this topic the authors identify the investment policy as profitability, liquidity, shift ability, safety diversification of risk, capital adequacy, solvency, social welfare etc. They further state; the field of investment is more challenging as it offers relatively greater scope to banker for their loan portfolio, but this higher degree of freedom in the field of credit management is also accompanied by greater risk particularly in recent year, the credit function has become more complex.

Dahal \& Dahal (2002) mentioned in this book "A Hand Book to Banking" that loan and advances dominate 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 bank. However, it is very important to be remind that most of the bank failures in the world due to shrinkage in the value of loan and advances. Hence loan known as risky assets. Risk of non repayment of loan is known as credit risk as default risk.

As inference from all these above stated authors it can be said that loan management refers to systematic identification of needy one or required party (loan taker), verifying their documents, pre and post site visit, disbursement of loan keeping collateral as mitigate for giver and post disbursement inspective cum sound recovery of granted loan as far as possible.

### 2.2.2 Review of Journals

Venkar Svinivasau and Yong H. Kim (1986) have explained an expert credit granting system prototype in designing expert financial systems: A Case Study of Corporate Credit Management, credit granting process in the participating corporation considered of two distinct phases (1) a customer evaluation phase, where the customer's credit worthiness is evaluated based on a variety of criteria; and (2) a credit limit determination phase, where the
conclusions of the analysis are transformed into a credit limit to the customers. System design was, therefore, split into two phases, (i) development of an appropriate data base and knowledge base to support the customer evaluation process and (ii) development of an appropriate model to support the credit limit determination phase. This paper has assumed to describe an expert credit granting prototype designed for a fortune 500 corporation. The model base and rules that comprise the prototype are combination of normative prescription and managerial reference presented in a user friendly environment issue that need conscious recognition in implementing such expert system in corporate finance were also brought forth. The progress in computer and information technologies has provided financial researcher an opportunity to affect a transfer of the expertise contained in normative model to practicing managers through the medium of intelligent computer systems. This is a modest attempt to provide a conceptual foundation of this notion and illustrate its feasibility

Shrestha (1997) "Lending Operation of Commercial Banks of Nepal and its Impact on $G D P^{\prime \prime}$ has presented with the objective to make an analysis of commercial banks lending to the gross domestic product (GDP) of Nepal. She has set hypothesis that there has been positive impact of lending of the commercial banks to the GDP. In research methodology she has considered GDP as the dependent service and social sectors as independent variables. A multiple regression techniques have been applied to analyze the contribution. The multiple analyzes have shown that act of variables except service sector lending has positive impact on GDP. In conclusion, she has accepted the hypothesis i.e. there has been positive impact by the lending of commercial banks in various sectors of economy, except service sector investment.

Shrestha (1998) in his article "A Study on Deposit and Credit of Commercial Bank in Nepal" concluded that the credit deposit ratio would be $51.30 \%$, other things remaining the same. In Nepal that was the lowest under the period of review. Therefore, she has strongly recommended that the joint venture banks should try to give more credit entering new fields as far as
possible; otherwise, they might not be able to absorb even the total expenses as a separate part of the management.

Karki (2059) has summarized some of the challenge through her article "Challenges of a non performing loan management in Nepal has mentioned the course of increasing trend of non-performing loan. She identifies the major courses such as poor loan analysis guarantee oriented loan system, desire platoon of valued assets, misuse of loan, lack of regular supervision of loan (Karki, U., 2002, NRB Vol. 47:87).

### 2.2.3 Review of Article

In the article by Mr. Dipendra B Chhetri, titled "Non Performing Assets; a Need for Rationalization", the writer has attempted to provide connation of the term NPA in financial sector in the South East Asian region. He had also given possible measure to contain NPA. "Loans and advanced of financial of the interest of the amount borrowed in stipulated time as agreed by the parties at the time of loan settlement. Since the date becomes past dues, the loan becomes nonperforming assets. The book of the account with lending institution should be effectively operative by means of real transaction affected on the part of the debtor in order to remain loan performing.

As stated by the writer, the definition of NPA differs from country to country. In some of the developing countries of Asian Pacific Economic Cooperation (APEC) forum, a loan is classified as none performing only after it has been arrear for at least 6 months. Similarly, it is after three months, in India. Loans thus defaulted are classified into different categories having their differing implication on the asset management of financial institution. He also stated that NPAs are classified according practice into 3 categories namely substandard, doubtful and Loss depending upon the temporal position of loan default. Thus the degrees of NPA assets depend solely on the length of time the asset has been in the form of none obliged $b$ the loaner. The more time it has elapsed the worse condition of asset is being perceived and such assets are treated accordingly. As per Mr. Chhetri's view, failure of business foe 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 factors leading to accumulation of NPAs.

He said that there is serious implication of NPAs, on financial institution. He further added that the liability of credit institution dies not limit to the amount.

Mr. Bodhi B. Bajracharya, in his article entitled, "Monertary Policy and Deposit Mobilization in Nepal" has concluded that the mobilization of domestic saving is one of the monetary policies in Nepal. For this purpose commercial banks stood as the vital and active financial intermediary for generating resources in the form of deposit of the private sector for providing credit to the investor's in different sector for providing credit to the investor's in different aspects of economy (Bajracharya, 2006: 93-97).

Bhaskar Sharma in his article "Banking the Future Competition" has mentioned that-due to the lack of investment avenues, banks are tempted to invest without proper credit appraisal and one personal guarantee, whose negative side effect would show colors only after 4or 5 years; again he mentioned that private commercial banks are have been mushroomed only in urban areas where banking transaction in large volume is possible. The rural and suburban areas mostly remain unattended too. This is likely to prevail till completion takes its full rein in the urban areas (Sharma, 2002:13).

Mr. Shekhar Bahadur Pradhan, in his article "Deposit Mobilization, its problem and Prospects" has presented that deposit is the life blood of every financial institutions, be it commercial bank, finance company co-operative or non government organization. He further adds in consideration of most of banks and finance company, the latest figure does produce a strong feeling that a serious review must be made of problems and prospects of deposit sectors.

Leaving few joint ventures banks, other organizations rely nearly on the business deposit and credit disbursement.

Mr. Pradhan has highlighted following problems of deposit mobilization in Nepalese context.
a) Most of the Nepalese people do not go for saving in institutional manner due to the lack of good knowledge. Their reluctance to deal with institutional system is generated by the lower level of understanding about financial organization process, withdrawn system, and availability of depositing facilities and so on.
b) Unavailability of the institutional services in rural areas.
c) Due to lesser office house of banking system people prefer holding the cash in the personal possession.
d) No more mobilization and improvement of the employment of deposits and the loan sectors.

Mr. Pradhan has also recommended for the prosperity of deposit mobilization which are as follows:
a) By providing sufficient institutional in the rural areas.
b) By cultivation the habit of using rural banking unit.
c) By adding service hour system to bank.
d) Nepal Rastra Bank should also organize training porgramme to develop skilled manpower.
e) By spreading co-operatives to the rural areas to develop mini branch services (Pradhan,2053:13).

Sunity Shrestha in her article "Financial Performance of Commercial Banks" has analyzed the following points.
a) The structural ratio of commercial banks shows that banks invest on the average $75 \%$ of their total deposit on the government securities and the shares.
b) Return ratio of all the banks shows that most of the time the foreign banks have higher return as well higher risk then Nepalese banks.
c) The debt ratios of commercial banks are more than $100 \%$ inmost of the time period under study period. It leads to conclude that the commercial banks are highly leveraged and highly risky.
d) The foreign banks have comparatively higher total management achievement index (Shrestha,1997:23-27).

According to the report published in the magazine the Boos, the financial sector has evolved as the biggest sector in the economy. There are altogether 128 financial institutions (excluding Nepal Rastra Bank. Micro financial institutions and cooperative registered with cooperative board) in the country and currently more than 20000 people employed in this sector. This human resources is responsible for managing approximately NPR 221 bn worth of assets (primarily loans and advances) out of which $50 \%$ comprises of two large banks of Rastriya Banijya Bank and Nepal Bank Ltd. Annual net profit of NPR 5.89 be generated by creating assets worth of NPR 221 bn last year means a very low return on assets (mere 2.21 percent, which is even below the average savings deposit in the country.

While doing root cause analysis for this scenario two very strong reasons have evolved. The first reason is the poor quality of loans, more particularly in government-owned banks and some private banks, due to noncompliance of basic credit principles while granting loans coupled with lack of credit-skills assessment. The second reason for lower return can be attributed to the fact that almost all the financial institutions are involved only in dealing with undifferentiated vanilla banking products (The Boss, October-2006:75).

### 2.2.4 Review of Past Thesis

Aryal Khimananda (2002) in his research "Loan Management of Agriculture Development Bank" states objectives were as follows:
a) To analyze the target and achievement of loan disbursement and collection.
b) To find the relation between the loan disbursement and collection of the bank.
c) To analyze the view of borrowers about $\mathrm{ADB} / \mathrm{N}$ and its loan collection and disbursement effects.
d) To evaluate the role of interest raise, disbursement procedure and collection other in actual loan collection of the bank.

His findings were as follows:
a) Actual loan disbursement, collection and outstanding are increasing in decreasing rate.
b) Decreasing growth rate and higher growth rate of loan disbursement than deposit collection so the production is the major problem of the bank.
c) There is positive relation between loan disbursement and collection.
d) Targeted loan collection and disbursement fixed by planning and project department is not significantly different than the actual.
Subedi Nirmal (2003) has submitted a thesis named "Loan Management of Himalayan Securities Finance Limited" on 2060 to Shankar Dev Campus, Tribhuvan University. His research objectives are as follows:
a) To analyze the loans and advances provided by HISEF Limited from FY 2054/55 to 2058/59.
b) To analyze the interest rate structure on loans to be issued.
c) To analyze the recovery or payment of the loans disbursed.
d) To study the appropriateness of HISEF Limited loan policy as per Directives of finance companies issued by NRB on 2058.
e) To study the effectiveness of HISEF Limited in relation to release and recovery of loan.
f) To study the attitudes of employees and clients of HISEF Limited in regard to the performance of the right institution.
g) To suggest and recommend the future strategies to be taken to improve organization preset status.

His research major findings were as follows:
a) Current ratio of HISEF Limited is relatively greater than standard (2:1). Its average is 2.89 it has $77 \%$ consistency in this rank over study period. There is problem of cash being idle in the several years.
b) Loan and advances to total deposit ratio ranges in between $78.49 \%$ to $95.41 \%$. There is $93.96 \%$ consistency over the study periods average of the ratio is $85.93 \%$ this shows that deposit collected mainly goes to lending loan and advances. Hence HISEF Limited main source of income comes from interest earned from loan and advances. There is high degree of positive correlation between total deposits and loan and advances.
c) Capital adequacy ratio is more than $10 \%$ there in the study period. This is to be $8 \%$ according to NRB directives. It has been increased last year of the study period. There is $86 \%$ consistency in the ratio through the study period. This shows capital fund (Net Worth) is sufficient to meet total deposit as per NRB directives for this (8\%).
d) Average deposit of HISEF Limited during research period is greater than finance companies industry.
e) Average loan and advances of HISEF Limited during research period is greater than finance companies industry.
f) Average ratio of loan and advances to total deposit of HISEF Limited during research period is greater than finance companies industry.
g) Net profit ratio is decreasing and negative in $5^{\text {th }}$ year. This shows weakness of loan lending practice.
h) Interest income from loan and advances and loan and advances hold higher degree of positive correlation. Change in loan and advances bring change in interest income.

Bhattarai Kamal (2006) has studied "Loan Management of Kathmandu Finance Lt.d." His major research objectives are as follows:
a) To analyze the loan and advances of KAFL.
b) To analyze the interest rate structure of loans and advances as well as depsits.
c) To analyze the recovery or repayment of the loans disbursed.

Major findings in his study were as follows:
a) Interest income from loan and advances hold high degree of positive correlation. Change in loan and advances bring change in interest income from it.
b) Average deposit and loan and advances of KAFL during research period wee similar to finance companies industry.
c) Term loan, housing loan, hire purchase loan and FDR loan occupy major position in due loan. FDR loan has decreasing trend. Hence, term loan, housing loan and hire purchase loan should be given more emphasis to recover.
d) Interest income from loan and advances and EBT goes in same direction. Increase in interest income causes increase in EBT and via-versa.

Khatri (2011) has concluded his study entitled 'Loan Management of Commercial Bank (A Case Study of Machhapurchre Bank Ltd.)". The research main objectives of the study were as follows:
a) To analyze the trends of deposit collection and loan investment.
b) To measure total amount of loan out of total deposit.
c) To evaluate the loan performance of MBL.
d) To know the view of employees in regard of the loan management.

His major findings are:
a) Deposit collection of MBL is satisfactory as there is positive in deposit year by year. Also, loan and advances are slow increasing trend but there is fluctuating trend.
b) In earlier years, fixed deposit has more contribution in total deposit but in later years, saving deposit has more contribution to total deposit except in the fiscal year 2066/67 where there is significant increment in fixed deposit and highest among other deposits
c) Most of the deposit amounts are utilized in loan and advances. 77 percent to maximum 91 percent of deposits are utilized in loan and
advances. It indicates positive sign as volume of deposits counts the investment. And MBL has been utilizing more than 70 percent of its current assets in loan and advances in all study period of five years.
d) Most of the staff has felt support of judiciary help.

Sherstha (2007) conducted a study on "Loan Management of Agricultural Development Bank (ADBN)"
His research objectives were as follows:
To examine loan disbursement and collection procedure of ADB .
a) To evaluate the trend of loan investment and collection.
b) To show the achievement of purpose wise, term wise and development region wise loan disbursement, outstanding and collection of ADB.

Primary data collection from the questionnaire and concerned department of bank and secondary data from journals, Annual reports and other published sources. Tools used to present the secondary data are Karl Person's co-efficient of correlation, probable error, hypothetical test.

His finding a textual to right research was as follows:
a) Finding from loan disbursement, the total loan investment of the development financing increase from Rs. 4.33 billion in 055/56 to Rs. 8.80 billion in $059 / 00$ registering an annual growth trend of $12.9 \%$.
b) From loan collection, total collection of the development financing increased from Rs. 3.50 billion in 055/056 to Rs. 6.96 billion in 059/60 with annual growth $12.8 \%$.
c) The total outstanding loan of the development financing increased from Rs. 9.76 billion to Rs. 16.67 billion in same period annual growth 10.3\%.
d) Average loan connection to outstanding is strong in western region compared to the other region but weak in eastern, mid-western and western region; whereas average collection of loan to disbursement stranger in western region and weak in far-western region.

### 2.2.5 Review of Legislative Provision

NRB Act 2013, NRB Act 058, Commercial Act 2031 and Banking and Financial Institutions Act 2063 are reviewed in the segment. After February 4, 2004 the ordinance relating bank and financial institutions has been promulgated. The ordinance is popularly called an umbrella act as it reveals and replaces all existing Acts relating to commercial banks, NIDC, other development banks and finance companies and brings all such institutions under the purview of a single act. The ordinance is divided into 12 chapters and contains altogether 93 sections. Loan disbursement and its recovery procedures are covered under chapter 7 that re-established the NRB's authority to regulate lending and minimize the changes of loan going to an unscrupulous or diversion of funds. The NRB issued Directive annually to guideline the banking activities. Every bank should follow NRB rules and regulations, otherwise that should pay fine. NRB Directives state about loans and advances in Directives no 2.

The main provisions established by NRB in the form of prudential norms in above relevant are briefly discussed here under.

## a) Provision for Fund Mobilization of Commercial Banks

To Mobilize bank's deposit in different of the different parts of the nation to prevent them from the financial problems, central bank (NRB) may establish a legal framework by formulation various rules and regulations (prudential norms). These directives must have direct or indirect impact while making decisions to discuss those rules and regulations which are formulated by NRB in term of investment and credit to priority sector, deprived sector, other institution, single borrower limit, CRR, loan loss provision, capital adequacy ratio, interest spread, productive sector investment etc. a commercial bank is directly related to the fact that how much fund must be collected as paid up capital while being established at a certain place of the nation, how much fund is needed to expand the branch and the counters, how much flexible and helpful the NRB rules are important. But we discuss only those, which are
related to investment function of commercial banks. The main provisions established by NRB in the from of prudential norms in above relevant area are briefly discussed here (NRB, 2008: 15).

## b) Provision Relating to Capital Adequacy Norms for Commercial Banks

Circular dated 2057.12.2 / March 15, 2001, revised by circular dated 2058.5.29/ Sep.14, 2001).

Maintained of the minimum capital fund: The total capital fund is the sum of core capital and supplementary capital.

On the basis of the risk - weighted assets, the banks should maintain the prescribed proportion of minimum capital funds as per the following time table.

Table : 2.1
Provision relating to Capital Adequacy Norms for Commercial Banks

| Time Table | Core Capital | Capital Fund |
| :--- | :---: | :---: |
| For FY 2058/59 | $4.5 \%$ | $9 \%$ |
| For FY 2059/60 | $5 \%$ | $10.0 \%$ |
| For FY 2060/61 | $6 \%$ | $12 \%$ |
| For FY 2066/67 | $5 \%$ | $10 \%$ |

Source: BFIs Unified Direction 2067.

## c) Provision Relating to Interest Rates

According to previous directives. The differences between the interest provided and interest charged (spread rate) should not more than 5\% These differences are calculated on this of the weighted interest too the directives of circular issued on $15^{\text {th }}$ July 2002 (32 Ashadh 2059), the requirement to maintain average interest spread at $5 \%$ has been with draw from the time being.

## d) Provision for Minimum Capital Fund

License financial institution should keep minimum capital fund for total risk weighted assets after 2005 are as follows:

Table : 2.2
Provision for Minimum Capital Fund

| Institution | Minimum Capital Fund to Total Risk Weighted Assets |  |
| :---: | :---: | :---: |
|  | Core Capital | Capital Fund |
| For "A", "B" and "C" | $6.00 \%$ | $12.00 \%$ |
| For "D" | $4.00 \%$ | $8.00 \%$ |

Source: BFIs Unified Direction 2067.

## e) Provision for Investment in the Deprived Sector

According to new provision, investment in share of rural development banks by commercial banks, which used to be counted for priority sector lending, only is new to be included under the deprived sector lending. According to the provision, banks are required to extend credit to deprived sector as stipulated percentage below:

Table : 2.3
Provision for Investment for Deprived Sector

| Institutions | Outstanding Loan Amount |
| :---: | :---: |
| For "A" | $3.00 \%$ |
| For "B" | $2.00 \%$ |
| For "C" | $1.5 \%$ |

Source: BFIs United Direction 2067

## f) Provision for the Investment in Productive sector:

Nepal being a developing country needs to develop infrastructure and other primary sectors like agriculture, industry etc. For this NRB has directed commercial banks to extend at least $40 \%$ of their total credit to the productive sector. Loan to the priority sector, agricultural sector and industrial sector are to be included in a productive sector investment.

## g) Provision for the Single Borrower Credit Limit:

i) For "A", "B" and "C" Class Licensed Institutions: Licensed institution may extend to the single borrower or group or related borrowers the amount of
fund based loans and advances up to $25 \%$ of the core capital fund and non fund based on balance sheet facilities like letter of credit, guarantees, acceptances, commitments up to $50 \%$ of its core capital fund. Fixation of limit on credit and facilities to single borrower shall be made on the basis of core capital fund as per the latest quarterly balance sheet certified by the internal auditors of related institutions. The fund based loan and non fund based facilities are separate and accordingly the single borrower limit shall not be calculated by aggregating the both.
ii) For "B" class Licensed Institution: Credit to the deprived and low income people may be extended a maximum of up to NPR 60,000 per group member/individual for operation of micro business and not more than NPR 150,000 per each micro enterprise to be provided on a gradual basis to the group member for operation of micro enterprise against acceptable collateral.

However, the institutions shall extend such-enterprise credit up to 25 percent of the total loans and advances.

## h) Cash Reserve Rotation Requirement (CRR)

To ensure adequate Liquidity in the commercial banks, to meet the depositor's demand for the cash at any time to inject the confidence in depositors regarding the safety of their deposited funds, commercial banks are required to have maximum CRR 5.5 \%. In this regard Nepal Rastra Bank has directed commercial banks to deposits in their own bank's vault. Cash reserve ration has been reduced by one percentage point effective beginning of new FY 2059/060.

## i) Provision Regarding Investments in Shares and Securities by Commercial Banks (directives no. 8 of circular no 70/05/8, Effective 2058/5/7)

Banks should prepare written policy relating to investment in the shares and securities of other organized institutions. Such polices should be implemented only under the approval of the Board of Directors. There should
be no restrictions as to investment by the banks in the securities of organized Nepal government in shares and securities of any one organized institutions not exceeding $10 \%$ of the paid up capital of such organized instruction.

## j) Loan Classification and Loan Los Provision

Loans and advances falling in the category of pass, classified as performing loan. Loan and advances falling in the category of substandard, Doubtful and Loss are classified as non-performing loan. The loan loss provision on the basis of the outstanding loans advances and bills purchase classified as per NRB directives are as follows:

Table: 2.4
Types of Loan

| S.N. | Type of Loan | Criteria | Provision <br> requirement |
| :--- | :--- | :---: | :---: |
| 1. | Pass | Principal overdue up to 3 months | $1 \%$ |
| 2. | Substandard | Principal overdue to 6 months | $25 \%$ |
| 3. | Doubtful | Principle overdue up to 1 year | $50 \%$ |
| 4. | Bad | Principle overdue above 1 year | $100 \%$ |

Source: BFIs United Direction 2067.

### 2.3 Research Gap:

This review of above relevant literature has contributed to enhance the fundamental understanding and knowledge, which is required to make study meaningful and purposive. There has been lots of article published related to investment policy, loan and advances of commercial banks. There are various researchers conducted on investment analysis and policy of Commercial banks but the few researchers conducted on loan management aspect of commercial banks. However, no one has done a study on "Loan Management of Nepalese Commercial Banks comparison between NBL and NABIL." Therefore the research attempts to study in this area.

## CHAPTER - III

## RESARCH METHODOLOGY

### 3.1 Introduction

In the previous chapters, the research has described and focused about general background and the past about NBL and NABIL banks. Also the study has explained about the review of literature with reference to the relevant books, articles, thesis and research findings. These all have provided and equipped the new research with essential inputs for the research and empowered the research to build choice of research methodology. Practically the selection of the appropriate research methodology assist research study in realistic terms with sound empirical analysis.

Research methodology is the way to solve the research problem systematically. The methodology enrolls many tools and techniques which are necessary for every study. Research Methodology refers to the thesis studying a problem with certain objectives and view. In other words, research methodology describes the methods and process applied in the entire subject of the study (Kothari, 1989:3).

### 3.2 Research Design

This is the step adopted in research study after the review of literature on the related topic. The choosing of an appropriate research design is crucially important to the success of the research project $A$ research design is the arrangement to conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure (Kothari, 1989: 3).

Regarding the research design, it has been concluded that it is a master plan which addresses almost all aspects of the research, from the minute details
of data collection to the selection of the techniques of data analysis. 'Research design is a blueprint specifying the method to be adopted for gathering and analyzing data (Pant, 2010: 112). Practically, research design includes and defines the terms- data collection method, measurement approaches, the objects to be measured and the way through which the data are to be analyzed.

The research design is thus an integrated form that guides the researcher in planning and exercising the research works, descriptive and analytical research designs are adopted as procedure under research design. Statistical analysis is also used here in:
i) Descriptive Analysis: This design has been adopted in fulfilling the objectives of this study. The study of loan management of NBL and NABIL has been carried out; under this descriptive and analytical techniques of research design.
ii) Statistical Tools Analysis: It throws light on the trend situation of loan disbursement and deposit collection from F.Y. 2006/07 to 2010/11 as far as possible. Karl Pearson's coefficient of correlation and regression line have been used to analyze the relationship between total deposits and loan and advances. Average, percentage, graphs, chart and diagram also have been used.

### 3.3 Population and Sample

There were total 32 commercial banks in Nepal, listed in Nepal stock exchange. Out of the banks the research has selected only the two commercial banks.- NBL and NABIL as they are the significant ones and more popular among the Nepalese people. Therefore the research has collected and studied the data belonging to the loan management of the banks.

### 3.4 Nature and Sources of Data

The research has used both primary and secondary data to meet the objective of the study achieving the real and actual results.
i) Primary Data: Primary Data refers to the data that have been gathered through convenient questionnaire and observation of institutions approaching in the field. Twenty personnel of NBL including head office and branch office and its twenty clients and twenty personnel of NABIL including head office and branch office were given questionnaire to fill necessary query required to assist the study.
ii) Secondary Data: Secondary data refers to the data which are collected by one agency, organization or person but used by other agencies, organizations or person. Collection of secondary data is comparatively cheaper and easier than the collection of primary data but the secondary data may be in the form of researchers needs. The required secondary data have been collected from annual report of NBL and NABIL, NRB directives, journals and magazines and websites.

### 3.5. Data Collection Procedure

The study is also based on primary data that have been collected from the responses obtained from scheduled questionnaires distributing to staff of NBL, NABIL and client of NBL. Similarly, the sample banks and their branches have been visited several times for the collection of balance sheet and annual reports. From these reports apart of secondary data have been collected directly.

### 3.6 Data Analysis Tools:

In order to meet the objectives of the research, the researcher has analyzed the sources of secondary data of commercial banks using financial tools such as ratio analysis. And simple descriptive analysis tools such as frequency, mean, standard deviation, correlation coefficient and regression analysis. Financial statement provides various useful information for the parties directly involved in the business. Selection of adequate tools and proper analysis make data effective. The researcher has used two types of tools. They are financial tools and statistics tools respectively.

### 3.6.1 Financial Tools:

Financial tools are those, which are used for the analysis and interpretation of financial data. These tools can be used to get the prior knowledge of business, which are fruitful in exploring the strengths and weaknesses of the financial policies and strategies.

Financial ratio analysis is considered as a powerful tool for making financial analysis. A financial ratio may be defined as the indicated quotient of two mathematical expressions and a relationship between two or more variables with each other. Ratio analyses are a process of determining and interpreting financial performance or position of the firm by comparing various numerical figures presented in the financial figures presented in the financial statements. A ratio is simply a number expressed in terms of another number and it expresses the quantitative relation between any two variables (Kothari, 1964:487).

Financial ratio analysis is a technique of analysis and interpretation of financial statements. To evaluate the performance of an organization by creating ratios from the figures of different accounts consisting in the balance sheet and income statement is known as ratio analysis (Dangol, 2054: 306).

The selected financial ratios that have been used in this report are- loan \& advances to total deposit ratio, non performing loan to total loan ratio, loan loss provision to total non performing loan ratio and total capital risk weighted ratio respectively.

## a) Loan \& Advances to Total Deposit Ratio

The main source of bank's loan distribution depends on its deposit. This ratio is calculated to find out how successfully the banks are utilizing their deposit on loan \& advances for profit generating activities. It is also called C/D ratio. It is expressed as,

Loan $\&$ advances to total deposit ratio $=\frac{\text { Loan \& Advances }}{\text { Total Deposit }}$3.1

Greater the ratio represents the better utilization of total deposits.

## b) Non Performing Loan to Total Loan

NRB has directed all the Nepalese commercial banks create loan loss provision against the doubtful and bad debts. However the concerned banks have not provided data on non-performing loan in their balance sheet and profit \& loss $\mathrm{A} / \mathrm{C}$. In order to measure the volume of non-performing loan to total loan \& advance the main indicator of NBL and NABIL is to be used. This ratio shows the percentage of non-recovery loans in total loans. It is expressed as, Non performing Loan to Total Loan $=\frac{\text { Non-performing Loan }}{\text { Total Loan }} \ldots \ldots \ldots \ldots \ldots$........ 3

Lower is the ratio, effective is the performances of bank and vice versa.

## c) Loan Loss Provision to Total Non Performing Loan Ratio

This ratio describes the quality of assets that the banks are holding. NRB has directed the Nepalese commercial banks to classify their loan \& advances into the classes of pass and standard, doubtful and loss loan. And to make the provision of $1,25,50$ and 100 percent respectively. Also the NRB has classified the pass and standard loan as performing loans whereas other two types of loan via doubtful and loss loan as non-performing loans. The provision created against the pass and substandard loan is called the general loan. Similarly the specific loan loss provision created against the doubtful and loss loan is called specific loan loss provision. The amount of loan loss provision in $\mathrm{B} / \mathrm{S}$ refers to general loan loss provision. The provision for loan loss reflects the increasing probability of non-performing loan. Increase in loan loss provision decreases in profit and ultimately results to reduce in dividends. However its positive impact is that strengthens the financial situations of banks by controlling the credit risk and reduce the risks related to deposits. It can be expressed as;
Loan Loss Provision to Non performing Loan $=\frac{\text { Loan Loss Provision }}{\text { Total Non-performing Loan }} \ldots . .3 .4$

Lower ratio represents the better quality of assets in total volume of loan \& advances. Similarly, higher ratio represents the more risky assets in total volume of loan \& advances.

## d) Total Capital to Risk Weighted Assets

Capital Adequacy Ratios is the ratio which detects the ability of banks in terms of meeting the time liabilities and other risks such as - credit risk, operational risk, marketing risk, etc. A bank's capital is the "cushion" for potential losses, which saves the bank's depositors and other lenders. Banking regulations in most countries define and monitor CAR to save depositors, thereby maintaining confidence in the banking system. This ratio is important to save depositors and promote the stability and efficiency of banks and their financial system. It is always expressed in \% of bank's risk weighed credit exposures. According to NRB, adequacy ratio is $12 \%$ which is adequate capital in the context of Nepal. If capital is higher than $12 \%$ is called over capitalized which means less risky and vice versa. It is expressed as;

Total Capital to Risk Weighted Assets Ratio $=\frac{\text { Total Capital }}{\text { Risk Weighted Asssets }} \ldots \ldots \ldots .3 .5$
When the capital is greater than $12 \%$ it is called over capitalized which means less risky and vice versa.

### 3.6.2 Statistical Tools

Statistical tools are indispensable tools in the hand of researcher. The tools are important in research in order to draw and develop the reliable conclusion through the analysis of financial data obtained and collected from the different sources.

The researcher has used following tools in order to reach the objectives. The tools are - arithmetic mean, standard deviation, co-efficient of variations, correlation coefficient, probable error and regression analysis respectively.

## a) Arithmetic Mean (A.M.)

The ratio between sum of all the observations and the number of observations is called arithmetic mean. The arithmetic mean is usually denoted by $\bar{X}$. It is expressed as;

$$
\bar{x}=\frac{\sum x}{n}
$$

Where, $\quad \sum x=$ the sum of observations

$$
n=\text { no. of observations. }
$$

## b) Standard Deviation ( $\sigma$ )

The standard deviation is defined as the positive square root of the arithmetic mean of the squared of deviation of each data from the arithmetic mean of a set of values. It is denoted by Greek letter $\sigma$ (small sigma). It is expressed as:

$$
\text { S.D. }(\sigma)=\sqrt{\left.\frac{1}{N} \sum x-\bar{x}\right)^{2}}
$$

Where,

$$
\begin{aligned}
& \mathrm{N}=\text { Number of observation } \\
& \mathrm{X}=\text { Expected return of the historical data }
\end{aligned}
$$

Smaller the standard deviation, larger is the degree of uniformity of the observations as well as homogeneity of a series of data and vice-versa.

## c) Co-efficient of variation (C.V.)

The co-efficient of variation is the most commonly used measure of relative variation. It is used in such problems where the researcher expects to compare the variability of data of more than two years. It is expressed as;

$$
\text { C.V. }=\frac{\sigma(S . D .)}{\bar{x}} x 100
$$

Lesser value of C.V. is preferable to measure the uniformity among the observations in research.

## d) Coefficient of Correlation Analysis (Karl Pearson's)

This statistical tool is used to analyze, identify and interpret the relationship between two or more variable of any study. It interprets the relationship between two or more variables that are correlated positively or negatively. The tool is mostly used to take several decisions from same set of observations.

In order to make decisions the following terms are influential.
When ' $r$ ' $=1$, there is perfect positive correlation
When ' $r$ ' $=-1$, there is perfect negative correlation
When 'r' lies between 0.7 to 0.999 ( -0.7 to 0.999 ), there is high degree of positive (or negative) correlation.
When ' $r$ ' lies between 0.5 to 0.699 there is moderate degree of correlation.

When ' $r$ ' less than 0.5 , there is low degree of correlation.
It is expressed as;

Karl Pearson's coefficient of correlation.

$$
r=\frac{\sum(\mathrm{x}-\bar{x}) \times \sum(\mathrm{y}-\overline{\mathrm{y}})}{\sqrt{\sum(\mathrm{x}-\bar{x})^{2} x \sum(\mathrm{y}-\bar{y})^{2}}}
$$

Where,
$\sum(\mathrm{x}-\bar{x})=$ Sum of deviation of observations in X series
$\sum(\mathrm{y}-\bar{y})=$ Sum of deviation of observations in Y series
$\sum(\mathrm{x}-\bar{x})^{2}=$ Sum of squared of deviation of observations in X series
$\sum(\mathrm{y}-\bar{y})^{2}=$ Sum of squared of deviation of observations in Y series

## Karl Pearson's coefficient of correlation:

This research has used Karl Pearson's coefficient of correlation to detect relationship between the following variables used in the research.
i. Coefficient of Correlation between Deposit and loan and advance.
ii. Coefficient of correlation between Deposit and total Investment.

## e) Probable Error (P.E.)

Probable error is used to measure for testing the reliability of an observed value of correlation coefficient. It is computed to find out the extent to which it is dependable. If coefficient of correlation is greater than 6 times of probable error, the observed value of $r$ is said to be significant, otherwise nothing can be concluded with certainty. It is calculated by using following formula:

$$
\begin{aligned}
& \text { P.E. }=0.6745 \times \frac{1-r^{2}}{\sqrt{n}}
\end{aligned}
$$

Where;

$$
\begin{aligned}
& r=\text { coefficient of correlation } \\
& n=\text { number of observation }
\end{aligned}
$$

## f) Regression analysis

Regression analysis is also known as the times series analysis which have been used to develop an estimate equation that is mathematical formula that relates the known variable to unknown variable. It is a statistical relationship between two or more variables and to make estimation of one variable on the basis of other variable. It is to understand here that constant 'a' indicates the mean or average effect on dependent variable of all the variables omitted from the model. Averages are the measures that condense a huge unwisely data into single value which represents the entire data. Its value lies between two extreme observations that are the largest and the smallest item. Similarly the regression coefficient $b$ of each independent variable indicates the original relationship between variable and value of dependent variable, holding constant effect of all other independent variable in the regression model.

The standard Regression equation Y on X is given as

$$
Y=a+b X
$$

Where;
$\mathrm{Y}=$ Dependent variable (loan in the research)

X=Independent variable (deposit in the research) $a$ and $b$ are coefficient constant

In the above model a and b are calculated solving the equations-
$\Sigma \mathrm{Y}=\mathrm{na}+\mathrm{b} \Sigma \mathrm{X}$

Then, putting the values of $a$ and $b$ in equation we get the required estimation regression equation of Y an X .

Least Square Trend Analysis
It is used to find out the trend of ratio the general equation used for linear trend is given below
$\hat{\mathrm{Y}}=\mathrm{a}+\mathrm{bX}$
Where;
$\widehat{\mathrm{Y}}=$ dependent variable (loan)
$\mathrm{X}=$ independent variable (deposit) (coded time in year)
$\mathrm{a}=\mathrm{Y}$ - intercept
b=slope

## CHAPTER-IV

## DATA PRESENTATION AND ANALYSIS

This is analytical chapter where those major financial items are analyzed and evaluated which affect the loan management and fund mobilization of the NBL and NABIL in the comparison of each year for the fulfillment of the research objective. Five year data covering from F.Y. 2006/07 to 2010/11 A.D. have been analyzed and interpreted as per the research methodology defined in the third chapter this chapter has been based on both primary and secondary data. Sources of secondary data are the annual reports of the banks, NRB publication and web site, published and unpublished reports etc. Primary data have been collected through structured questionnaire with the staffs and clients of the banks.

### 4.1 Financial Ratio

Financial analysis is act of identify the financial strength and weakness of the organization presenting the relationship between the items of balance sheet. For the purpose of this study ratio analysis has mainly been used and with the help of which data have been analyzed.

Various financial ratios concerned to the loan management and the fund mobilization are presented and discussed to evaluate and analyze the performance of the banks. It is notable that only some important financial ratios are calculated from the view point of loan management.

The following ratios have been calculated under this topic:

1. Credit and Deposit Ratio
2. Non performing to Total Loan Ratio
3. Total Loan Loss Provision to Total Non performing Loan Ratio
4. Total Capital to Risk Weight Assets

### 4.1.1 Data Presentation of NBL

### 4.1.1.1 Loan \& Advances and Deposit Ratio

This ratio helps to show the relationship between loan and advances that are granted and the total deposit collected by bank. This ratio measures the extent to which the banks are successful to mobilize the total deposit on loan and advances to generate profit. Higher the ratio means better mobilization of collected deposit and vice-versa. It is calculated as:

Loan \& Advances and Deposit Ratio $=\frac{\text { Loan \& Advances }}{\text { Total Deposit }}$
Table:4.1
Loan \& Advances and Deposit Ratio (\%)
(Rs. In Million)

| F.Y. |  <br> Advances | \% <br> increased | Total <br> Deposit | \% <br> increased | Ratio <br> $(\%)$ | NRB <br> Standard |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2006 / 07$ | $11,058.40$ | - | $39,014.20$ | - | 28 | $80 \%$ |
| $2007 / 08$ | $13,251.90$ | 19.83 | $41,829.30$ | 7.21 | 32 | $80 \%$ |
| $2008 / 09$ | $17,294.70$ | 30.51 | $44,628.20$ | 6.70 | 39 | $80 \%$ |
| $2009 / 10$ | $23,560.90$ | 36.23 | $42,406.00$ | 4.98 | 56 | $80 \%$ |
| $2010 / 11$ | $24,671.30$ | 4.71 | $46,804.20$ | 10.37 | 53 | $80 \%$ |
| Mean |  |  |  |  | 41.60 | $80 \%$ |

Sources: Annual Report of NBL (2006/07-2010/11)
The table 4.1 shows the amount of loan and advances to total deposits and corresponding ratios of the bank. The loan and advances to total deposit ratios of NBL has been ranged between 28 \% (F/Y 2006/07) to 56 \% (F.Y. 2009/10), the ratio has more or less noticed fluctuating trend during the period. The average ratio of NBL is $41.60 \%$. On the basis of above analysis it can be concluded that the loan and advances to total deposit ratio in F.Y.2009/10 and $2010 / 11$ is greater than the average ratio i.e. $41.60 \%$. Loan and advances is the current assets used in generating income. Therefore, higher the loan and advance to total deposit ratios, higher is the ability to spend on investment sectors. Hence, F.Y. 2009/10 and 2010/11 are better than F.Y.2006/07 to
F.Y.2007/08 and 2008/09 comparatively in terms of given loans and advances for income generating investment. Finally the ratio is very poor as compared to NRB standard which is $80 \%$.

The relations between total loan and advance to total deposits ratio can be presented in the Bar Diagram as under.

Figure: 4.1
Loan and Advance to Total Deposit Ratio


Above figure 4.1 shows the ratio between loan and advances to the total deposit of NBL from F.Y. 2006/07 to 2010/11, the height of box is higher year by year which discloses the fact that the bank is increasing its investment of deposit in loan and advances except in F.Y. 2010/11.

### 4.1.1.1.1 Trend of Deposit Collection

The trend of total deposit in coming year has been analyzed using trend analysis. The following trend line shows the projection of total deposit of NBL up to F.Y. 2015/16. The trend of deposit collection growth ratio from F.Y. 2007/08 to F.Y. 2010/11 has the range between $4.98 \%$ to $10.37 \%$ and similarly the growth rate will have the range $2.10 \%$ to $3.40 \%$ during the upcoming
period F.Y. 2011/12 to F.Y. 2015/16. The calculation of trend forecasting has been presented in appendix I.

Fig : 4.2
Trend of Deposit Collection


The above figure 4.2 shows that the deposit collection of NBL is in increasing trend except in F.Y. 2009/2010, if other things remaining constant. According to the forecasting the deposit collection will be Rs. 47783.40 million in the F.Y. 2011/12, Rs. 49399.10 million in the F.Y. 2012/13, Rs.51014.70 million in the F.Y. 2013/14, Rs 52630.40 million in the F.Y. 2014/15 and Rs. 54246.10 million in F.Y. 2015/16 respectively.

### 4.1.1.1.2 Trend of Loan \& Advances

The trend of loan $\&$ advances in the coming year has been analyzed using trend analysis. The following trend line shows the projection of total loan and advances of NBL up to the F.Y. 2015/16. The trend of loan and advances growth ratio from F.Y. 2007/08 to $2010 / 11$ has the range $4.71 \%$ to $36.23 \%$ .Similarly the growth rate will have the range between $9.30 \%$ to $18.50 \%$ in the upcoming F.Y. 2011/12 to 2015/16. The calculation of trend forecasting has been presented in appendix II.

Figure: 4.3

## Trend of Loan \& Advances



The above figure 4.3 shows that the loan \& advances of NBL is in increasing trend if other things remain constant. According to the forecasting the amount of loan \& advances will reach to Rs. 26227.90 million in F.Y. 2011/12, Rs. 32981.40 million in F.Y. 2012/13, Rs. 36734.80 million in F.Y. 2013/14, Rs. 40488.30 million in F.Y. 2014/15 and Rs. 44241.80 million in F.Y. 2015/16 respectively.

### 4.1.1.2 Non Performing Loan to Total Loan Ratio

Loans lended to the customers come under the assets heading of balance sheet; and those loans which are not paid in time are considered as NonPerforming Loan or Non Performing Assets (NPL/NPA). This ratio has been used to identify the share of bad debts or useless credits in the total credit of banks. In other words, this is the share of credits, which are failed to generate regular earnings. It is always expressed in percentage. Lower ratio is desirable for banks. The lower ratio denotes better efficiency in utilization of available assets this ratio measures the ability of a bank in generating income from bank's deposit liability. It is calculated as:

Non Performing to Total Loan Ratio $=\frac{\text { Non Performing Loan }}{\text { Total Loan }}$
Table: 4.2
Non Performing Loan to Total Loan Ratio (\%)
(Rs. In Million)

| F.Y. | Non Performing <br> Loan | Total Loan | Ratio (\%) |
| :---: | :---: | :---: | :---: |
| $2006 / 07$ | 1,856 | 13758.34 | 13.49 |
| $2007 / 08$ | 2,067 | 15766.59 | 13.11 |
| $2008 / 09$ | 1149.5 | 19482.25 | 5.90 |
| $2009 / 10$ | 1,242 | $24,934.96$ | 4.98 |
| $2010 / 11$ | 1,413 | $26,709.88$ | 5.29 |
| Mean |  |  | 8.55 |
| S.D. |  |  | 3.89 |

Sources: Annual Report of NBL (2006/07-2010/11)
The table 4.2 shows that the amount of non-performing loan to total loan and the corresponding ratio of the bank. The non-performing loan to total loan ratio of NBL has ranged between $4.98 \%$ (F.Y. 2009/10) to $13.49 \%$ (F.Y. 2006/07), the ratio is decreasing trend during the periods. The average ratio is $8.55 \%$. On the basis of above calculation it can be concluded that in F.Y. 2009/10 and F.Y. 2010/11 the ratio is lesser than in F.Y. 2006/07 to 2008/09. It means the bank has remained more successful regarding the collections of the cost bearing non performing loan in profitable sectors.

The table 4.2 non performing loan to total loan ratio can be presented in the bar diagram as under.

Figure: 4.4
Non Performing Loan to Total Loan Ratio


Above figure 4.4 shows ratio between NPL to total loan of NBL from F.Y. 2006/07 to 2010/11, the height of box is decreasing remarkably year after year except in F.Y. 2010/11 which discloses the fact that the bank is able to decrease NPL means the loan management of bank is being effective in recent years except in F.Y. 2010/11.

### 4.1.1.3 Loan Loss Provision Ratio

Future is uncertain. Existing pass may become bad loan in the future. So, to avoid that risks, banks make provision from the certain amount of profit. As per the rules of NRB, the loss provision is made as per the nature of loans that are as follows:

## Classification

Pass Loan

## Provision

Standard Loan $1 \%$

Doubtful Loan $25 \%$

Bad/Loss Loan

The provision to loan and advances ratio of NBL of five years has been observed here. This ratio is in term of percentage. It is calculated as:
Loan Loss Provision to Non performing Loan Ratio $=\frac{\text { Loan loss Provision }}{\text { Non-Performing Loan }}$

Table: 4.3

## Loan Loss Provision to Non-Performing Loan ratio

(Rs. in Million)

| F.Y. | Loan Loss <br> Provision | Non Performing | Ratio \% |
| :---: | :---: | :---: | :---: |
| $2006 / 07$ | 2116.21 | 1856.00 | 114.02 |
| $2007 / 08$ | 3570.08 | 2067.10 | 172.71 |
| $2008 / 09$ | 2187.50 | 1149.50 | 190.30 |
| $2009 / 10$ | 1536.35 | 1242.00 | 123.07 |
| $2010 / 11$ | 1502.00 | 1413.00 | 106.30 |
| Mean |  |  | 141.28 |
| S.D. |  |  |  |

Sources: Annual Report of NBL (2006/07-2010/11)
The table 4.3 shows the loan loss provision to total loan of NBL during the period from $2006 / 07$ to $2010 / 11$. The average ratio for the study is $141.28 \%$, which means loan loss provision is $141.28 \%$ of the total loan. The ratios $114.02 \%$ in $2006 / 07$ and $106.30 \%$ in $2010 / 11$ that are lesser than the average ratio $141.28 \%$. The trend of total loan is increasing however the trend of loan loss provisions is fluctuating. Higher ratio of loan loss prevision to total non performing loan represents that the bank has increasing trend of non performing loans up to 2009/10, however in the recent 2010/11 the bank has been able to maintain the lower ratio of loan loss provision to non performing loans, which shows the green signal of the bank towards the well management of loan loss provision. According to the general standard, banks should make higher percentage of provision for the non performing loan. NRB has directed the commercial banks to maintain the level, based on the quality of loan.

The table 4.3 loan loss provision to non-performing loan ratio can be presented in the bar diagram as under.

Figure: 4.5
Loan Loss Provision to Non-Performing Loan ratio


Above figure 4.5 shows that the ratio between loan loss provision to NPL of NBL from F.Y. 2006/07 to 2010/11, the height of the box is changing during the study period which discloses the fact that the quality of assets that the bank is holding as almost fluctuating in trend since the period and the financial strength of the banks to control the credit risk and the risk related deposit has been slowly variable.

### 4.1.1.4 Total Capital to Risk Weight Assets

Capital adequacy ratios is the ratio which determines the capacity of the bank in term of meeting the time liabilities and other risks such as credit risk, operational risk, marketing risk, etc . A bank's capital is the "cushion" for potential losses, which protects the bank's depositors or other lenders. Banking regulations in most countries define and monitor CAR to protect depositors, thereby maintaining confidence in the banking system. This ratio is used to protect depositors and promote the stability and efficiency of bank or financial system. It is expressed in $\%$ of bank's risk weighed credit exposures.

According to NRB, adequacy ratio is $12 \%$ which is adequate capital in the context of Nepal. It is calculated as:

Total Capital to Risk Weighted Assets Ratio =

Total Capital
Risk Weighted Assets

Table: 4.4
Total Capital to Risk Weighted Assets Ratio
(Rs. in Million)

| F.Y. | Total Capital <br> Asset | RWA | Ratio (\%) | NRB <br> Standard |
| :---: | :---: | :---: | :---: | :---: |
| $2006 / 07$ | 42695.63 | $(109842.10)$ | $(38.87)$ | $12 \%$ |
| $2007 / 08$ | 43908.69 | $(1408023.30)$ | $(31.18)$ | $12 \%$ |
| $2008 / 09$ | 50243.59 | $(247505.36)$ | $(20.30)$ | $12 \%$ |
| $2009 / 10$ | 46430.62 | $(394818.18)$ | $(11.76)$ | $12 \%$ |
| $2010 / 11$ | 52601.20 | $(492982.20)$ | $(10.67)$ | $12 \%$ |

Sources: Annual Report of NBL (2006/07-2010/11)
The table 4.4 shows that the ratio of total capital to risk weighted assets ratio of NBL during the F.Y. 2006/07 to 2010/11. The Total Capital to Risk Weighted Assets Ratio of NBL has ranged between -9.66 \% (F.Y. 2010/11) to $43.09 \%$ (F.Y. 2006/07), the ratio is on the fluctuations trend during the periods It has negative fluctuation trend. Therefore, the data represents that there is more risky for the depositors in NBL and to run it effectively. Similarly sound capital base is necessary to win the confidence of depositor.

The table 4.4 Total capital to risk weighted assets ratio can be presented in the Bar Diagram as under.

Figure: 4.6
Total Capital to Risk Weighted Assets Ratio


Above figure 4.6 shows the ratio between total capital to risk weighted assets ratio of NBL since F.Y. 2006/07 to 2010/11. The height of box from bottom to top has been shrinkaged remarkably year after the year which discloses the fact that the bank is able to reduce the negative ratio remarkably and the bank is avoiding deposit risk to depositors in passage of the period. However, the bank needs sound capital based to win the confidence of the depositor.

### 4.1.2 Data Presentation of NABIL

### 4.1.2.1 Loan and Advance to total Deposit Ratio

This ratio helps to show the relationship loan and advances which are granted and the total deposit collected by bank. This ratio measures the extent to which the banks are successful to mobilize the total deposit on loan and advances for the purpose of generating profit. A high ratio of loan and advances means better mobilization of collected deposit and vice-versa. It is calculated as:

[^0]Table: 4.5
Loan and Advance to Total Deposit Ratio (Times)
(Rs. In Million)

| F.Y. | Loan and <br> Advances | \% <br> Increased | Total <br> Deposit | \% <br> increased | Ratio <br> $(\%)$ | NRB <br> Standard |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2006 / 07$ | 15545.7 | - | 23915 | - | 65.0 | $80 \%$ |
| $2007 / 08$ | 21365.1 | 37.43 | 31915 | 33.45 | 66.9 | $80 \%$ |
| $2008 / 09$ | $27,589.9$ | 29.13 | $37,348.3$ | 14.54 | 73.9 | $80 \%$ |
| $2009 / 10$ | $32,268.9$ | 16.96 | $46,406.3$ | 24.25 | 69.5 | $80 \%$ |
| $2010 / 11$ | 38034.1 | 17.80 | 49696.1 | 7.10 | 76.5 | $80 \%$ |
| Mean |  |  |  |  | 70.4 | $80 \%$ |

Sources: Annual Report of NABIL (2006/07-2010/11)
The table 4.5 shows the amount of loan and advances to total deposit and corresponding ratio of the bank. The loan and advance to total deposit ratio has ranged between 65\% in the F.Y. 2006/07 to $76.5 \%$ in the F.Y. 2010/11. The average ratio is $70.4 \%$. According to the above analysis it can be concluded that the loan and advances to total deposit ratio is greater than the average ratio $70.4 \%$ in the F.Y. 2008/09 and 2010/11. However, the ratio in the F.Y. 2006/07, F.Y. 2007/08 and F.Y. 2009/10 is lesser than the average ratio. As higher the loan and advances to total deposit ratio, higher is the ability to spend loan to investment sectors. Hence the bank has greater potentiality to spend in investment sectors in order to generate income from the investments in the F.Y. 2008/09 and 2010/11 comparatively than the earlier fiscal years.

The above loan and advance to total deposit ratio can be presented in the Bar Diagram as under.

Figure: 4.7
Loan and Advance to Total Deposit Ratio


Above figure 4.7 shows that the ratio between loan and advances to total deposit ratio of NABIL from F.Y. 2006/07 to 2010/11. The height of box has been increasing in F.Y. 2008/09 remarkably and in other years slightly year after year except in F.Y. 2009/10, which discloses the fact that the bank is increasing investment of its deposit in loan and advances. Also from the figure it has been noticed that in the current year the bank has been able nearly to meet the NRB standards which is $80 \%$.

### 4.1.2.1.1 Trend of Deposit Collection

The trend of total deposit in coming year has been analyzed using the trend analysis the following trend line shows the projection of total deposit of NABIL up to 2015/16. The trend of deposit collection growth ration from F.Y. 2007/08 to $2010 / 11$ has the range in between $14.54 \%$ to $33.45 \%$ and similarly in the F.Y. 2011/12 to 2015/16 will have the range between $9.34 \%$ to $12.98 \%$. The calculation of trend forecasting has been presented in appendix III.

Figure: 4.8

## Trend of Deposit Collection



The above figure 4.8 shows that deposit collection of NABIL is in increasing tend if the other things remaining constant. According to the forecasting the deposit collection will be Rs.57672.20 million in F.Y.2011/12, Rs. 64277.55 in F.Y. 2012/13, Rs. 70882.90 million in F.Y. 2013/14, Rs. 77488.25 million in F.Y. 2014/15 and Rs. 84093.60 million in F.Y. 2015/16 respectively.

### 4.1.2.1.2 Trend of Loan \& Advances

The trend of loan \& advances in coming year has been analyzed using trend analysis. The following trend line shows the projection of total loan \& advances of NABIL up to the F.Y. 2015/16. Similarly during the period F.Y. 2006/07 to 2010/11 the loan and advances increasing trend has the range between $7.10 \%$ to $33.45 \%$ and the increasing trend during the F.Y. 2011/12 to $2015 / 16$ will have the range between $9.23 \%$ to $14.96 \%$. The calculation of trend forecasting has been presented in appendix IV.

Figure: 4.9

## Trend of Loan \& Advances



The above figure shows that the loan \& advances of NABIL is increasing trend if other things remaining constant. According to the forecasting the amount of loan \& advances will reach to Rs. 43725.20 million in F.Y. 2011/12, Rs. 49313.30 million in F.Y. 2012/13, Rs. 54901.40 million in F.Y. 2013/14, Rs. 60489.50 million in F.Y. 2014/15 and Rs. 66077.60 million in F.Y. 2015/16 respectively.

### 4.1.2.3 Non performing loan to Total Loan

Loans lended to the customers come under the assets heading of balance sheet; and those loans which are not paid in time are considered as NonPerforming Loan or Non Performing Assets (NPL/NPA). The low ratio indicates the good quality of assets and high ratio indicates the poor and ineffective credit policy and poor performance of the economy. It is calculated as:

Non Performing to Total Loan Ratio $=\frac{\text { Non Performing Loan }}{\text { Total Loan }}$

Table: 4.6
Non Performing Loan to Total Loan Ratio (\%)
(Rs. In Million)

| F.Y. | Non Performing <br> Loan | Total Loan | Ratio (\%) |
| :---: | :---: | :---: | :---: |
| $2006 / 07$ | 178.20 | $15,903.00$ | 1.12 |
| $2007 / 08$ | 161.10 | $21,792.40$ | 0.74 |
| $2008 / 09$ | 224.80 | $27,999.00$ | 0.80 |
| $2009 / 10$ | 486.30 | $33,030.90$ | 1.47 |
| $2010 / 11$ | 689.80 | 38905.50 | 1.77 |
| Mean |  |  | 1.18 |
| Standard Deviation |  |  | 0.39 |

Sources: Annual Report of NABIL (2006/07-2010/11)
The table 4.6 shows the non performing loan to total loan of NABIL for financial year 2006/07 to 2010/11. The ratio is in decreasing trend from F.Y. 2006/07 up to 2008/09 and increases in F.Y. 2009/10 and 2010/11 respectively. However, the lower the non performing loan to total loan ratio represents more effectiveness of the banks performing and vice-versa. According to the average $1.18 \%$ it indicates that the total non performing loan of NABIL is about 1.18part of total loan and investment.

The table 4.6 non performing loan to total loan ratio can be presented in the Bar Diagram as under.

Figure: 4.10

## Non Performing Loan to Total Loan Ratio



Above figure 4.10 shows that the ratio between NPL to total loan of NBL from F.Y. 2006/07 to 2010/11. The height of box is decreasing remarkably upto F.Y. 2008/09 which is about nill and has been increased drastically in the year 2010/11. However, the NPL to total loan of this bank seems very much low which indicates that the bank has strength to recover NPL significantly.

### 4.1.2.5 Loan Loss Provision to Non-Performing Loan Ratio

The provision for loan loss reflects the increasing probability of non performing loan. Increase in loan loss provision decrease in profit result to decrease in dividends. But its positive impact is that strengthens the financial conditions of banks by controlling the credit risk and reduced the risks related to deposits. The ratio is calculated by dividing the amount of provision by loan and advances and this ratio is in term of percentage. It is calculated as:

Loan Loss Provision to Non performing Loan Ratio $=\frac{\text { Loan loss Provision }}{\text { Non-Performing Loan }}$

Table: 4.7
Loan Loss Provision to Non-Performing Loan Ratio

| F.Y. | Loan Loss <br> Provision | Non Performing | Ratio \% |
| :---: | :---: | :---: | :---: |
| $2006 / 07$ | 357.2 | 178.2 | 200.4 |
| $2007 / 08$ | 394 | 161.0 | 244.8 |
| $2008 / 09$ | 409.1 | 224.8 | 182.0 |
| $2009 / 10$ | 761.7 | 486.3 | 156.6 |
| $2010 / 11$ | 871.4 | 689.8 | 126.3 |
| Mean |  |  | 182 |
| Standard Deviation |  |  |  |

The table 4.7 shows that the loan loss provision to NABIL during the study period of F.Y. 2006/07 to F.Y. 2010/11 has been decreasing except in F.Y. in $2007 / 08$. The average ratio is $182 \%$ which means the loan loss provision ration is $182 \%$ of the non performing loan. Similarly the ratio in F.Y. 2009/10 and F.Y. 2010/11 is below the average which are $156.6 \%$ and $126.3 \%$ respectively. The ratio in the F.Y. 2008/09 is equal to the average ratio which is $182 \%$ and whereas the ratio in F.Y. 2006/07 and F.Y. 2007/08 is greater than the average ratio i.e. $200.4 \%$ and $244.8 \%$ respectively. However during the study period the ratio is in decreasing trend except in F.Y. 2007/08 which means bank is being able to decrease the non performing loan at all. According to the general standard, bank should make higher \% of provisions for the non performing loan. NRB has directed the commercial banks to maintain the loan, based on the quality of the loan.

The table 4.8 loan loss provision to non-performing loan ratio can be presented in the Bar Diagram as under.

Figure: 4.11
Loan Loss Provision to Non-Performing Loan ratio


Above figure 4.12 shows that the relation between loan loss provision to NPL of NABIL from F.Y. 2006/07 to 2010/11. The height of box is not remarkably changed during the study period which discloses that the quality of asset that the bank is holding is almost constant and the financial strength of the bank to control the credit risk and the risk related deposit during the year is almost constant. However, the ratio is always more than $150 \%$ which discloses that the bank is having lower risk related to the deposit.

### 4.1.2.6 Total Capital to Risk Weight Assets

Capital adequacy ratios is the ratio which determines the capacity of the bank in term of meeting the time liabilities and other risks such as credit risk, operational risk, marketing risk, etc . A bank's capital is the "cushion" for potential losses, which protects the bank's depositors or other lenders. Banking regulations in most countries define and monitor CAR to protect depositors, thereby maintaining confidence in the banking system. This ratio is used to protect depositors and promote the stability and efficiency of bank or financial system. It is express as a \% of bank's risk weighed credit exposures. According
to NRB, adequacy ratio is $12 \%$ which is adequate capital in the context of Nepal. If Capital adequacy ratio is higher than $12 \%$ is called over capitalized and vice versa. It is calculated as:

Total Capital to Risk Weighted Assets Ratio =
Total Capital
Table: 4.8
Risk Weighted Assets
Total Capital to Risk Weighted Assets Ratio

| F.Y. | Total Capital | RWA | Ratio (\%) |
| :---: | :---: | :---: | :---: |
| $2006 / 07$ | 22807.06 | 2808.00 | 12.31 |
| $2007 / 08$ | 27630.34 | 3326.70 | 12.04 |
| $2008 / 09$ | 37487.67 | 4161.13 | 11.10 |
| $2009 / 10$ | 43867.40 | 5097.39 | 11.62 |
| $2010 / 11$ | 52910.10 | 6216.94 | 11.75 |

Sources: Annual Report of NABIL (2006/07-2010/11)
The table 4.8 shows that the ratio of total capital to risk weighted assets ratio of NABIL for the financial year of 2006/07 to 2010/11. The total capital to risk weighted assets ratio of NABIL has a range between $11.10 \%$ in F.Y. 2008/09 to $12.30 \%$ in F.Y. 2006/07. The ratio during the study periods i.e. F.Y. 2006/07 to 2010/11 there is nearly the constant trend and the bank is being able to maintain the ratio as per NRB directives which is $12 \%$ for Nepal. The lower the CRA represents the bank has low risk for the depositors and to run the organization effectively and moreover the ratio than $12 \%$ there is over capitalized which means less risky.

The table 4.8 Total capital to risk weighted assets ratio can be presented in the Bar Diagram as under.

Figure: 4.12
Total Capital to Risk Weighted Assets Ratio


Above figure 4.12 shows that the ratio between total capital to risk weighted assets of NABIL since F.Y. 2006/07 to 2010/11. The height of box is almost in between 11 to 12.40 which discloses that the bank is being nearly able to meet NRB standards i.e. $12 \%$ in all the year during the study period which discloses that the bank is avoiding deposit risk to the depositors.

### 4.2 Statistical Analysis

Under this chapter, some statistical tools have been used to achieve the objectives of the study. Following statistical tools have used for this purpose.

1. Co-efficient of Correlation Analysis
2. Probable Error
3. Regression Analysis

### 4.2.1 Analysis of Co-efficient of correlation between Total Deposit and Loan and Advance of NBL

The correlation between deposits and loan and advances measures the degree of relationship between them. In this research, the researcher has taken deposit as an independent variable denoted by (x) and loan and advances as
dependent variable ( y ). The main objectives of calculating ' $r$ ' between these two variables are to justify whether deposits are significantly used as loan and advances or not.

The following table shows the value of $\mathrm{r}, \mathrm{r}^{2}$, P.E. and 6P.E between total deposits and loan and advances of NBL during the study period.

Table: 4.9
Co-efficient of Correlation between Total Deposit and Loan

| Coefficient of <br> Correlation (r) | $\mathbf{R}^{\mathbf{2}}$ | P.E. | 6PE |
| :---: | :---: | :---: | :---: |
| 0.7588 | 0.5758 | 0.1279 | 0.7674 |

(Source: Appendix V)
Table 4.9 the coefficient of correlation between deposit and loan and advances of NBL is 0.7588 which is positive and it lies between 0.7 to 1 . Therefore there is positive relationship between deposit and loan advances. The strength of relation is measure by $\mathrm{r}^{2}$. The calculated value of $\left(\mathrm{r}^{2}\right)$ or coefficient of determination is 0.5758 . This means $57.58 \%$ of variation of the dependent variable (loan and advances) has been explained by the independent variable (deposit). And the value of ' $r$ ' is lesser than the six times the probable error, i.e. $0.7588<0.7674$. Hence there is not significant relationship between deposits and loan \& advances.

### 4.2.2 Regression Analysis

As regression analysis is used to develop an estimating equation i.e. mathematical formula that relates known variable to unknown variable. It is a statistical relationship between two or more variables and to make estimation of one variable on the basis of other variable. Here this analysis has been made to know the inter relationship between deposit and loan \& advances and dependency of loan \& advances on deposit. Therefore deposit is the independent variable and the loan \& advances is dependent variable in the study. According to the regression analysis of deposit and loan \& advances of NBL it has been found that the banks has not adopted the good loan
disbursement policy therefore the bank has the regression line having the deposit without any application. As a result of which the bank has not been able to receive remarkable income on investment sector. It is not merely that the regression line has the fixed value ' $a$ ' as negative i.e. (45345.59) million which means bank has the deposit money without application and nearly the bank has made the amount (49002.78) million normally as functionless from the deposit. And likewise the coefficient of deposit ' b ' is 1.56 which means it is above the requirement rate of $\mathrm{b}=1$, which also signals that bank has over deposit rather than its well mobilization in investment sector for generating income. The analysis equation has been shown in appendix VII.

### 4.2.3 Analysis of Co-efficient of correlation between Total Deposit and Loan and Advance of NABIL

The co-efficient of correlation between deposits and loan and advances measures the degree of relationship between them. In this research, the researcher has taken deposit as an independent variable denoted by ( x ) and loan and advances as dependent variable (y). The main objectives of calculating ' $r$ ' between these two variables are to justify whether deposits are significantly used as loan and advances or not. The following table shows the value of $\mathrm{r}, \mathrm{r}^{2}$, P.E. and 6P.E between total deposits and loan and advances of NBL during the study period.

Table: 4.10
Co-efficient of Correlation between Total Deposit and Loan

| Coefficient of <br> Correlation (r) | $\mathbf{R}^{\mathbf{2}}$ | P.E. | 6PE |
| :---: | :---: | :---: | :---: |
| 0.9898 | 0.9797 | 0.0061 | 0.0366 |

(Source: Appendix VI)
The table 4.10 shows the coefficient of correlation deposit between deposit and loan \& advances of NABIL is $\mathrm{r}=0.9898$ which is positive and lies between 0.7 to 1 . Therefore, there is positive relationship between deposit and loan \& advances. This shows the strong relationship between the terms. The
strength of the relation is measured by $r^{2}$. The calculated value of $\left(r^{2}\right)$ or coefficient of determination is 0.9797 .This means $97.97 \%$ of variation of the dependent variable (loan and advances) has been explained by the independent variable (deposit). And the value of ' $r$ is greater than the six times the value of probable error, i.e. $0.9898>0.0366$. Hence there is significant relationship between deposit and loan \& advances.

### 4.2.4. Regression Analysis

From the regression analysis of two variables deposit and loan \& advances of NABIL, it has been noticed that the coefficient of deposit ' $b$ ' in the equation is less than 1 means the bank is trying its best to mobilize its deposit as far as possible in investment sector to generate income. However, the line shows that still there is negative value of constant 'a' which mean the bank has to adopt effective policy to improve loan management process in it. The regression equation shows that loan \& advances is dependent on deposit and therefore the banks should try its best to maintain coefficient of deposit ' X ' to make 1 as standard. The regression equation have been shown in appendix VIII.

### 4.2.5 SW Analysis:

Under this analysis the various results obtained above have been used for the development of conclusion regarding the strength and weakness of loan administration. Also the various financial ratio and statistical majors have been used are taken as the references.

Table: 4.11
SW Analysis

| Banks | Strength | Weakness |
| :---: | :---: | :---: |
| NBL | - Increasing deposit collection and credit disbursement. <br> - Increasing C/D ratio <br> - Decreasing NPL ratio <br> - Improving total capital to RWA ratio. <br> - Positive Correlation between deposit and credit. (ie. 0.7588) | - The increasing trend in both is consistent. <br> - C/D ratio less than NRB standard <br> - NPL $8.55 \%$ in average. <br> - Negative total capital to RWA ratio. ie. ( $10.67 \%$ ) <br> - Correlation less than 6PE (relation between deposit is not significant) <br> - Coefficient of regression is 1.5 more than standard |
| NABIL | - Increasing deposit collection and credit disbursement. <br> - Increasing C/D ratio <br> - Minimum NPL ratio <br> - Total capital to RWA ratio is about NRB standard. (ie. 12\%) <br> - Positive Correlation between deposit and credit. (ie. 0.9898) <br> - The relation between deposit and credit is significant. (ie. r>6PE) <br> - Coefficient of regression is 0.83 (about standard ie. 1.0). | - Average C/D ratio is $70.4 \%$ which is less than NRB standard (ie.80\%). <br> - NPL $1.18 \%$ in average. |

From the table 4.11 it has been noticed that the strength of loan administration of NABIL is comparatively better than of NBL, as it has many strength as compare to that of NBL in many ratios.

### 4.3 Presentation of Primary Data

### 4.3.1 Presentation of Primary Data of NBL

### 4.3.1.1 Analysis of Responses to Questionnaire by Employees of NBL

Twenty questionnaire were distributed to each group of both employees and clients of a NBL but only ten from each group could be collected.

Table: $\mathbf{4 . 1 2}$
Frequencies of Responses from Employees of NBL

| Issues (Particulars) | Total |  | Yes |  | No |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | No. | $\%$ |  | No. | \% | No. |

Source: Opinion Survey,2068
Table 4.12 shows the frequencies and percentage of employees responding to given questionnaires.

- Out of total number of respondents, $100 \%$ of them stated that they do not have problem related to NBL. These problems are frequent changes in rules, regulation, policy, provision and directives.
- Among the respondent, $40 \%$ are in favor and $60 \%$ are on against of problems related to loan subscription. They said that due to economic
downfall, increasing competition and political on stability in the country; there is a problem of qualitative loan subscribers.
- Almost all the respondents ( $80 \%$ ) said that there is no any problem in deposit collection. Due to lack of security in investment, unsecured feelings of life, ups and downs in economy, customers themselves are depositing willingly.
- About $60 \%$ of the respondents said that they don't have customer related problems but remaining $40 \%$ felt problem of loan taking customers. They shared that they are not getting the desired customers.
- There are $80 \%$ of the respondents who shared that customers are fully satisfied with NBL but $20 \%$ of them shared that due to lengthy process of loan and excess clients, customers may dissatisfy with NBL service.
- All of the respondents shared that the bank does not have any problem with the flow of loan.
- About $70 \%$ of the respondents knew about interest rate and its provision however $30 \%$ are not known about it. Therefore, the top and middle level employees are well informed about lending rate of NBL where as junior level are not familiar with that.
- All the $100 \%$ of the respondents are agreed that they are getting incentives from organization such as allowances, bonus and so on.
- All the respondents said that they do not consider on single factor while giving loan. They opined that income of loan subscriber, quality of collateral, purpose of venture, and subscriber's creditability should be jointly considered.
- Receiving of regular information of the collateral is $60 \%$ and $40 \%$. This is possible in hire purchase loan and land etc. but difficult in calculating the depreciation of vehicle, building and machinery equipments etc.
- All the respondents consider that fund based loan is useful for the benefit of the organization.
- About $80 \%$ of the respondents agreed with the correctness of process involved in recovering the loan.
- All the respondents are agreed about the statement that NBL is obeying NRB directive sincerely while carrying out its all day to day activities.
- Likewise $70 \%$ of the respondents are in favor of amendment in loan policy of NBL and NRB directives whereas $20 \%$ of them are not realizing the necessity of amendment of NBL policy and NRB directive. The structure questionnaire has been presented in appendix IX.


### 4.3.1.2 Analysis of Respondents to Questionnaire by Loan Paying Clients of NBL

Table: 4.13
Frequencies of Responses from Loan Paying Clients of NBL

| Issues (Particulars) | Total |  | Yes |  | No |  | No Idea |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | No. | $\%$ | No. | $\%$ | No. | $\%$ | No. | $\%$ |
| Information about NBL <br> before taking loan | 10 | 100 | 10 | 10 | - | - | - | - |
| Effectiveness of loan <br> providing policy of NBL | 10 | 100 | 7 | 70 | 2 | 20 | 1 | 10 |
| Feasibility of interest rate <br> charge on loan and advances | 10 | 100 | 8 | 80 | 2 | 20 | - | - |
| Rebate and discount on <br> processing of loan | 10 | 100 | 7 | 70 | 3 | 30 | - | - |
| Utilization of whole amount <br> of loan | 10 | 100 | 10 | 100 | - | - | - | - |
| Relevance of Service charge | 10 | 100 | 5 | 50 | 5 | 50 | - | - |
| Toughness and length of <br> lending process | 10 | 100 | 7 | 70 | 3 | 30 | - | - |
| Verification of property kept <br> as collateral | 10 | 100 | 2 | 20 | 6 | 60 | 2 | 20 |
| Tediousness of repayment <br> process | 10 | 100 | 4 | 40 | 4 | 40 | 2 | 20 |
| Financial position has <br> strengthen from loan or not | 10 | 100 | 3 | 30 | 6 | 60 | 1 | 10 |
| Happy with lending process <br> of NBL | 10 | 100 | 6 | 60 | 4 | 40 | - | - |

Source: Opinion Survey,2068

Table 4.13 shows the frequencies and percentage of client responding to given questionnaires.

- All of the respondents shared that the name of NBL is common them.
- Only $70 \%$ of the respondents thought that the lending process and policy of NBL is correct however among the respondents $20 \%$ are found against on the policy whereas $10 \%$ among them have no any idea about the policy and process.
- Convinced client with the feasibility of the interest rate charged on loan are $80 \%$ where as remaining are complaining about the interest rate as compare to other commercial banks.
- About $70 \%$ of the respondents knew about the interest rebate and other discounts but side by side $30 \%$ did not notice about the same.
- There $100 \%$ of the respondents responded that they have utilized the whole loan amount on the sector for which the loan is withdrawn.
- Half of the respondents provided that service charged by NBL is relevant however another half of the respondents are not on the favor of service charge.
- $70 \%$ of the respondents have felt that the lending process is tough and lengthy whereas the remaining has not felt so.
- All the clients have responded that NBL use to conduct inspection cum verification of collaterals and properties before granting loan. It is good for efficient loan management.
- $40 \%$ of the clients have felt tedious in loan payment procedure but $40 \%$ clients have not felt so and the remaining have no idea on it.
- Only $30 \%$ of the clients have been agreed that their financial position has strengthen by the loan of NBL however $60 \%$ do not have been agreed with this and $10 \%$ clients have no idea about it.
- About $60 \%$ of the respondents are willing to keep transaction with NBL but $40 \%$ are not so happy with bank.


## Informations Obtained from Informal Interview with Bank Staff

From the informal communication with the related staff of NBL the followings informations were obtained-

- The clients are getting tired because of delay service of the bank.
- Clients do not want to deposit cash in NBL as it has less interest rate.
- Bureaucracy of NBL is being serious problem for the effective services.
- The bank is facing the problem in loan recovery.
- The government has not been adopt good policy to run the banks.


### 4.3.2 resentation of Primary Data of NABIL

To generate the primary data, the structured questionnaire method has been applied. Structured questionnaire have been prepared to generate the realistic and accurate data from banks. The respondents have been requested to fill up the questionnaire. For the study, 20 sets of questionnaires of NABIL have been submitted to the employees. However only 10 questionnaire with reply could be collected. The reply of the questionnaire is as below: The structure of questionnaire has been presented in an appendix ' X '.

### 4.3.2.1 Analysis of Responses to Questionnaire by Employees of NABIL

Answers obtained from questionnaire send to 20 employees of NABIL among which only 10 questionnaire with reply have been returned and on the based of which responses are presented below:

Table: 4.14
Key Risk in NABIL

| S.N. | Risk |  |  | Risk Grade |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Rank |  |  |  |
|  |  | High (15) | Moderate (10) | Low (5) | Point |  |
| 1 | Credit | 6 | 3 | 1 | 125 | 1 |
| 2 | Liquidity | 4 | 3 | 3 | 105 | 2 |
| 3 | Interest Rate | 3 | 5 | 2 | 105 | 2 |
| 4 | Exchange | 2 | 2 | 6 | 80 | 3 |

Source: Opinion Survey, 2068

Table 4.14 shows that credit risk is the generic risk in NABIL. Regarding the key risk, the respondents have given top most priority to credit risk as a major risk in NABIL. Similarly the respondents have filled their respondents as second rank to liquidity risk and liquidity risk. And the last risk is exchange risk from the above risk analysis. Finally credit risk has been noticed as the prior risk in NABIL according to the questionnaires replied by the employees of the NABIL.

Table: 4.15
Basis of Loan Disbursement

| S.N. | Subject |  | Weight |  |  |  |  | Total | Weight <br> Age <br> Value | Mean <br> Value | Rank |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  | 1 | 2 | 3 | 4 | 5 |  | 3.6 | 1 |  |  |
| 1 | Collateral | 0 | 2 | 3 | 2 | 3 | 10 | 36 | 3.7 | 4 |  |
| 2 | Profitability of <br> Business | 3 | 2 | 2 | 1 | 2 | 10 | 27 | 2.7 |  |  |
| 3 | Project Financial <br> Statement | 1 | 2 | 2 | 2 | 3 | 10 | 34 | 3.4 | 2 |  |
| 4 | Image of the <br> Business | 2 | 1 | 5 | 2 | 1 | 10 | 33 | 3.3 | 3 |  |
| 5 | Image of the Owner | 2 | 3 | 3 | 0 | 2 | 10 | 27 | 2.7 | 4 |  |

Source: Opinion Survey, 2068
The table 4.15 shows that the respondents were focusing to the collateral as the prior factor for the loan disbursement. Among 10 respondents answered to the questionnaire the second rank for the loan disbursement basis has been given to the project financial statement and third rank to image of business likewise forth rank to the image of the owner and profitability of business respectively.

Table: 4.16

## Default Loan Rescheduling

| S.N. | Alternative | Number of Respondent | Percentage |
| :--- | :--- | :---: | :---: |
| 1 | Yes | 7 | 70 |
| 2 | No | 3 | 30 |
| Total |  |  | 100 |

Source: Opinion Survey, 2068

Table 4.16 shows that out of 10 respondents to the questionnaire about the default loan should be rescheduled or not. Among them $70 \%$ respondents suggested the loan to be rescheduled and the rest $30 \%$ of them suggested not to reschedule the loan.

Table: 4.17
Remedies of Recovering Loan

| S.N. | Stream | Respondents |  | Rank |
| :--- | :--- | :---: | :---: | :---: |
|  |  | Number | Percentage |  |
| 1 | Collateral | 3 | 30 | 1 |
| 2 | Guarantor | 2 | 20 | 2 |
| 3 | Counseling | 1 | 10 | 3 |
| 4 | Strong Follow Up | 2 | 20 | 2 |
| 5 | Technical Support | 2 | 20 | 2 |
|  | Total | 10 | 100 |  |

Source: Opinion Survey, 2068
The table 4.17 shows that out of 10 respondents $30 \%$ of them replied that the banks should focus to use action of collateral as instrument for the recovery of loan provided to the borrowers. $20 \%$ of them answered that the bank should be adopt protection from guarantor, strong follow up and technical support \& rest $10 \%$ answered to adopt counseling for the recovery of loan.

Table: 4.18
Need of Effective Asset Management Office

| S.N. | Alternative | Respondents |  |
| :---: | :---: | :---: | :---: |
|  |  | Number | Percentage |
| 1 | Yes | 7 | 70 |
| 2 | No | 2 | 20 |
| 3 | No Idea | 1 | 10 |
| Total |  | 10 | 100 |

Source:, Opinion Survey, 2068
The table 4.18 shows that regarding the well management of loan recovery $10 \%$ respondents were asked whether there is need of effective asset
management office or not. Among them 70\% answered there is need of effective asset management office. Similarly $20 \%$ of them answered there is no need of effective asset management office and rest of them replied they have no idea about it.

Table: 4.19
Support of Judiciary Help

| S.N. | Alternative | Respondents |  |
| :---: | :---: | :---: | :---: |
|  |  | Number | Percentage |
| 1 | Yes | 6 | 60 |
| 2 | No | 3 | 30 |
| 3 | No Idea | 1 | 10 |
| Total |  | 10 | 100 |

Source: Opinion Survey, 2068
Table 4.19 shows that the answers of respondents regarding the questionnaire they filled about the support of judiciary office. Among them $60 \%$ of them they felt the need of the office. Similarly $30 \%$ of them have not felt the need of the office whereas only $10 \%$ of them shared they have no idea about it.

Table: 4.20
Information about Customer Business

| S.N. | Alternative | Respondents |  |
| :---: | :---: | :---: | :---: |
|  |  | Number | Percentage |
| 1 | Yes | 10 | 100 |
| 2 | No | 0 | 0 |
| 3 | No Idea | 0 | 0 |
| Total |  | 10 | 100 |

Source: Opinion Survey, 2068
The table 4.20 shows that the answered of the respondents regarding the questionnaire asking about the burrower's business information. Among all the respondents they shared the bank should collect regular information about their customer business for the excellent loan recovery process.

Table: 4.21
Causes for Turning Good Loan and Bad Loan

| S.N. | Subject | Weight |  |  |  |  | Total | Weight <br> Age <br> Value | Mean <br> Value | Rank |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 | 2 | 3 | 4 | 5 |  |  |  |  |
| 1 | Weak Management | 2 | 1 | 2 | 3 | 2 | 10 | 32 | 3.2 | 3 |
| 2 | Bad Intention of Burrower | 2 | 3 | 1 | 2 | 2 | 10 | 29 | 2.9 | 4 |
| 3 | Weak Legal Provision | 3 | 1 | 3 | 2 | 1 | 10 | 27 | 2.7 | 5 |
| 4 | Weak Monitoring | 1 | 2 | 2 | 3 | 2 | 10 | 33 | 3.3 | 2 |
| 5 | Loose Credit Policy | 1 | 2 | 2 | 2 | 3 | 10 | 35 | 3.5 | 1 |

Source; Opinion Survey, 2068
The table 4.21 shows that the answered shared by the respondents regarding the causes for turning good loan and bad loan. The respondents gave first rank to the loose credit policy for the turning of good loan into the bad loan. Similarly the respondents gave second rank to weak monitoring, third rank to weak management of the bank, fourth rank to bad intension of burrower and fifth rank to weak legal provision of the bank respectively.

Table: 4.22
External Factors Affecting Loan Management

| S.N. | Subject | Weight |  |  |  |  | Total | Weight <br> Age <br> Value | $\begin{aligned} & \text { Mean } \\ & \text { Value } \end{aligned}$ | Rank |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 | 2 | 3 | 4 | 5 |  |  |  |  |
| 1 | Economic and Industrial Recession | 2 | 3 | 1 | 2 | 2 | 10 | 28 | 2.8 | 4 |
| 2 | High and Conservative Provision | 1 | 2 | 2 | 3 | 2 | 10 | 33 | 3.3 | 2 |
| 3 | Inconsistence of Government Policy | 2 | 1 | 2 | 3 | 2 | 10 | 32 | 3.2 | 3 |
| 4 | Political Bureaucracy and External Pressure | 3 | 1 | 3 | 2 | 1 | 10 | 27 | 2.7 | 5 |
| 5 | Lack of Effective Legal Provision | 1 | 2 | 2 | 2 | 3 | 10 | 35 | 3.5 | 1 |

Source; Opinion Survey, 2068

The table 4.22 shows that the respondents regarding the external factors affecting loan management of the bank the respondents give first rank to the lack of legal provision, second rank to the high and conservative provision, third rank to the inconsistency of government policy, fourth rank to economic and industrial recession and fifth rank to external forces and pressure respectively.

Table: 4.23
Amendment of NRB Directives

| S.N. | Alternative | Respondents |  |
| :---: | :---: | :---: | :---: |
|  |  | Number | Percentage |
| 1 | Yes | 5 | 50 |
| 2 | No | 3 | 30 |
| 3 | No Idea | 2 | 20 |
| Total |  | 10 | 100 |

Source; Opinion Survey, 2068
The table 4.23 shows that the respondents regarding the question of amendment of NRB directives shared that $50 \%$ of respondent were suggesting for the better directives rather than existing $30 \%$ of them are satisfied with the existing directives and $20 \%$ of them shared that they have no idea on it.

## Informations Obtained from Informal Interview with Bank Staff

From the informal communication with the related staff of NBL the followings informations were obtained-

- Banks are getting more pressure because of over bargain from customer.
- Customers are wanting least rigidity on lending process
- Banks are getting more throat competition because of emergence unfair competitors in the market.
- Customers are less punctual to repay the loan due to of their low income.
- Customers are demanding its service from all corners of the country.


### 4.4 Major Findings of the Study

The major findings from analysis are -

1. Deposit collections trend of NBL and NABIL has increased uniformly where the deposit collection of NBL has reached to Rs 46804.20 million from Rs 39014.20 million and that of NABIL has reached to Rs 49696.10 million from Rs 23915.00 million during the study period.
2. Loan and advances of NBL and NABIL have slow increasing trend. NBL has the maximum increment of loan and advances $36.21 \%$ in F.Y 2009/10 and NABIL has maximum increment $33.43 \%$ in F.Y 2007/08.
3. CD ratio of both the banks has increasing trend. Likewise the NBL has CD ratio range between $28 \%$ to $56 \%$ and NABIL has the range between $65 \%$ to $76.50 \%$.
4. NPL to total loan ratio of NBL has decreasing trend which is from $13.43 \%$ to $4.98 \%$. However, NABIL has the ratio of fluctuating trend having the range of $0.74 \%$ to $1.77 \%$.
5. Loan loss provision to NPL ratio of NBL has fluctuation trend which is in between 106.30 times to 190.00 times. However, NABIL has decreasing trend which is from 244.80 times to 126.30 times.
6. Total capital to Risk weighted assets ratio of NBL has the continuous increasing trend towards positive value from negative value having the range between ( $38.87 \%$ ) to ( $10.67 \%$ ). However, NABIL has the ratio between $11.10 \%$ to $12.31 \%$. ie, almost positive and constant.
7. Correlation between deposit and loan and advance of NBL and NABIL are 0.7588 and 0.9898 respectively. The values indicate that the relation between deposit and loan and advances of both banks is positive. Similarly the calculated value of correlation, r<6PE, therefore the relation between the variables is not significant in NBL. However the calculated value of correlation, $\mathrm{r}>6 \mathrm{PE}$ in NABIL, therefore the relation between the variables is significant.
8. Coefficient of deposit (x) in regression line of loan and advances (x) and deposit ( x ) ' b ' is greater than 1 which is 1.55 , in NBL and coefficient of NABIL is 0.83 .
9. Findings from primary research of NBL -
a. The major problems witnessed by the NBL is insufficient demand of the potential loan takers and weak and irregular supervision by NRB.
b. From the responses collected from client of NBL, it has been noticed that everyone came to conclude that loan paying clients of NBL are positive about loan process, interest rate charges, service charges, rebate and discount offered by NBL.
c. Similarly, the loan paying clients of NBL have mixed responses regarding the services and process of services rendered by NBL.
d. Clients have been agreeing that they are not using the loan to strengthen their financial position.
e. Clients are complaining about the process of verification of collateral.
f. Few customer are steel unhappy with its lending process.
10. Findings from primary research of NABIL -
a. The most of the respondent have shared that credit is the key risk in it.
b. The most of the respondent have shared that collateral is the basis of the loan disbursement.
c. The majority of the respondent have shared that bank has to use action of collateral for remedies of loan recovery.
d. The majority of the respondents have shared that banks has lack of effective asset management office.
e. Majority of the respondent have shared that it has lack of judiciary office support.
f. All the respondent have shared that it has to collect regular information from customer's business.
g. Most of the respondent shared that loose credit policy of NABIL is the major cause for bad loan.
h. Majority of the respondent shared that external factor affecting for loan management is lack of effective legal provision.

## CHA PTER - V

## SUMMARY, CONCLUSION AND RECOMMENDATIONS

### 5.1 Summary

Most of the development country like Nepal are involved in the development of economic activities to uplift the living standard of their people and it is possible only through the development of commerce and industry. No doubt banking promotes the development of commerce and industry to its extreme. Therefore banks play a significant role in the overall development of the nations. In the context of Nepal, commercial banks have played a significant role in developing banking culture.

NBL was established in 1937 A.D. as the first commercial bank of Nepal where as NABIL Bank Limited was established in 1984 A.D. as the first joint venture bank of Nepal. Both the banks have contributed a lot in the development of Nepalese economy. After their establishment on their journey of operation they have faced many ups and downs. As of other bank, the core function of this bank is to collect deposit and loan disbursement. The deposits are collected in different ways under different headings as suitable to the customers. Similarly the loan is also disbursed in different sectors as per the demand of customer making the investment save from the point of bank. The customers demand loan from the bank to promote business like trade, industry, tourism, make daily life easier like hire purchased, housing loan, and education loan, and also provide facility in import and export through letter of credit. The banks do not only seek profit but also helps deprived sector by providing priority sector loan. In this loan they lock up agricultural products like grains, mustard, paddy for short period as security as most of Nepalese people are totally dependent on agriculture

In this study, the research topic "Loan Management of NBL and NABIL Bank Limited", concerned with the management of loan disbursement and loan recovery of the concerned institutions has been analyzed here in. Efficient and effective flow of loan and advances generate income to banks very appropriately and this finally helps for both long run survival and profit generation

In this study, the loan management of two commercial banks namely NBL and NABIL Bank Limiteds have been studied by taking five year data from 2006/07 to 2010/11.

The introduction of the research paper highlighted the background of banking and introduced the banks with different instances, stating the statement of the problem and set the objective for the study purpose.

The data which were used in this study are of primary and secondary nature. They have been obtained from concerned banks annual report, literature, publication, balance sheet, profit and loss account, classification of loan and advance, previous thesis report, different websites, related books, journals and articles and field survey, questionnaires.

For the analysis and interpretation of data various financial tools have been used they are - non performing loan ratio, loan loss provision to non performing loan ratio, total loan and advance to total deposit ratio, total performing loan to non performing loan ratio. Similarly, statistical tools have been used in this study they are - mean, standard deviation, coefficient of variation, coefficient of correlations, trend analysis and regression analysis. A small primary survey has been conducted using structure questionnaire method.

This study is bounded by several limitations. In this study focus has been given to the quantities aspect of the commercial banks. Thus, the study may not be generalized in all cases and accuracy depends upon the data collected and provided by concerned organization.

### 5.2 Conclusion

The present study successfully explored the result to meet the stated objectives of the study and found meaningful. The result showed that a loan management of NBL and NABIL. Both the banks provide various types of loan to different sectors. From the F.Y. 2009/10 and onwards the banks are progressing in effective loan management than in earlier years during the study period. Similarly other conclusions explored on the basis of analysis of related data are as follow:-

* Deposit collection of both NBL and NABIL is satisfactory as there is positive increment in deposit year after year. However, NABIL has faster deposit collection trend than NBL comparatively.
* Although there is narrow area of investment and cut throat competition in banking sectors, loan and advances of NBL and NABIL shows uniform increasing trend. However, comparatively the trend of loan and advance of NABIL is faster than of NBL.
* In average $41.60 \%$ and $70.40 \%$ of total deposit of NBL and NABIL has been utilized in loan and advances which is less than NRB standard ie, 80\%. However comparatively NABIL has better utilization of deposit in loan and advances than of NBL.
* Though NPL to total loan ratio of NBL has uniform decreasing trend than of NABIL. However, NBL has the average ratio $8.55 \%$ which is greater than average ratio of NABIL i.e. $1.88 \%$ Hence, NBL has $8.55 \%$ bad loan which is greater than of NABIL i.e. 1.18 , out of total credit.
* The average loan loss provision to NPL of NBL is 141.28 times and that of NABIL is 182.0 times. Comparatively the average ratio of NABIL is greater than of NBL. Hence NABIL has higher ratio means it has lesser NPL.
* Total capital to Risk weighted assets ratio of NABIL still negative where as that of NABIL is almost about $12 \%$ which is about NRB
standard. Hence, NABIL has more strength to overcome the deposit related risk.
* Correlation between deposit and credit of NBL and NABIL are 0.7588 and 0.9898 respectively. It means that the relation of two variables is positive. But correlation $r<6 \mathrm{PE}$ of NBL and $\mathrm{r}>6 \mathrm{PE}$ of NABIL. Therefore the relation between the variables of NBL is not significant but the relation between the variables of NABIL is significant.
* Coefficient of deposit in regression line of loan and advances an deposit of NBL is 1.55 and of NABIL is 0.88 , it means deposit is more idle in NBL than NABIL.

From the collected responses of respondents of NBL-

- The bank has lack has potential customers.
- The interest rate, discount rate, rebate, service charge etc charged to the customers on loan are satisfiable.
- The customers are not so happy from service rendering process.
- The customers have not used the loan fully in good sectors.
- The bank has need of attractive lending process
- The bank has lack of collateral verification process.

From the collected responses of respondents of NABIL

- The bank has credit risk as the generic risk.
- Among the various basis for loan disbursement the collateral is the primary basis.
- Rescheduling the default loan is good for loan management.
- Action of collateral for the loan recovery is the better method.
- The bank has lack of effective assets management office.
- The bank has lack of judiciary office for loan management.
- The bank has lack of customers business information.
- Loose credit policy is the prime factor for the arrival of bad loan.
- The bank has lack of effectively legal provision for loan recovery.


### 5.3 Recommendations

This study can be valuable piece of research wok in loan management topic. As it has explored the existing situation and identified the various components for further improvement in loan management of the banks. Both the information sources primary as well as secondary have been used for fulfilling the objectives of the study. It may be useful for the academicians, upcoming researcher, customers, investors, bank management etc. who are directly or indirectly linked in banking activities. On the basis of the finding of the study in order to improve Loan Management of NBL and NABIL, the following suggestions and recommendations have been put forward.
$>$ Deposit collection of both the banks is increasing during the study period. However, NABIL has comparatively higher growth rate than NBL. Therefore NBL is suggested to increase the growth rate where as NABIL is suggested to keep the trend uniform in future.
$>$ Loan and advances of NBL and NABIL are at increasing trend. However NABIL has greater growth trend than NBL. Therefore NBL is suggested to strengthen its loan and advances disbursement process in future whereas NABIL is suggested to hold the trend up uniformly.
$>$ Average CD ratio of NABIL is greater than the miserable average CD ratio of NBL. However both the banks have CD ratio below the NRB standard. Therefore both the banks are suggested to be concentrated on CD ratio nearer to $80 \%$ as per the NRB directives.
$>$ NPL to total loan ratio of NBL in an average (8.55\%) is greater than of NABIL and still NABIL also has the ratio $1.18 \%$. Therefore both the banks are suggested to minimize the ratio in future.
$>$ Loan loss provision of NBL is an average ( 141.28 times) is less than of NABIL i.e., 182 times. Therefore both the banks are suggested to increase the ratio in future.
$>$ Total capital to RWA of NBL is still negative and less than of NABIL. Therefore, NBL is suggested to upgrade the sound capital bases to win
depositors confidence, where as NABIL is suggested to keep the ratio as constant, forever as it has about $12 \%$ currently (as per NRB directives).
> From statistical analysis of correlation, the relation between deposit and loan of NBL is not significant whereas that of NABIL is significant. Therefore NBL is suggested to mobilize the deposit into loan and advances such that the relation between the variables becomes significant where as NABIL is suggested to keep the relation between variables up forever.
$>$ Coefficient of deposit in regression line of NBL is 1.55 which is greater than NBIL (i.e. 0.83). Therefore, NBL is suggested to be concentrated about the standard coefficient (i.e. 1) and NABIL is suggested to maintain the coefficient constant forever.
> Both the banks are under the pressure of risk management. Therefore they are suggested to minimize their credit risk in order to secure healthy position.
$>$ NABIL is suggested to concentrate more on collateral offered by the borrower while disbursing loan.
> NBL and NABIL both are suggested to collect borrower's business information in regular basis in order to renew and enhance limit to the borrowers.
> NBL is suggested to adopt easier process for lending in future.
$>$ NBL is suggested to adopt appropriate verification process of collateral.
$>$ NABIL is suggested to extend its services all over the country in future.
$>$ NABIL is suggested to adopt strict lending policy in future.
> Both the banks are suggested to adopt client friendly and modern banking services to attract the clients highly in future.

The banks are suggested to follow the NRB directives strictly and amend the policy which meets the standard ascertain by the regulating authority to remain competitive, healthy and leader.

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## APPENDIX <br> Questionnaire I <br> Question for opinion survey <br> (From Employee of NBL)

Q.N.1) Are there any problems related to NBL ?
a) Yes
b) No
c) No-idea
Q.N.2) Are there any problems related to loan subscription?
a) Yes
b) No
c) No-idea
Q.N.3) Is there any problem in deposit collection from the customers?
a) Yes
b) No
c) No-idea
Q.N.4) Are there any problems related to customers?
a) Yes
b) No
c) No-idea
Q.N.5) Are the customers satisfied with services of NBL?
a) Yes
b) No
c) No-idea
Q.N.6) Is there problem related to flow of loan?
a) Yes
b) No
c) No-idea
Q.N.7) Are all known about interest rate charged on loan?
a) Yes
b) No
c) No-idea
Q.N.8) Is NABIL Bank Limited allowing employee to office incentives?
a) Yes
b) No
c) No-idea
Q.N.9) Is NABIL Bank Limited giving focus to single factor for providing loan?
a) Yes
b) No
c) No-idea
Q.N.10) Is fund-based loan beneficial or not for organization?
a) Yes
b) No
c) No-idea
Q.N.11) Is the process adopted for receiving due loan effective?
a) Yes
b) No
c) No-idea
Q.N.12) Is there necessity to update 'loan policy of NBL and NRB directive?
a) Yes
b) No
c) No-idea

Name:
Address:
Contact No:

## APPENDIX

## Questionnaire II

## Questionnaire for Opinion Survey <br> [From Loan Paying Clients of NBL]

Q.N.1) Was there any information before taking loan?
a) Yes
b) No
c) No-idea
Q.N.2) Is the loan providing policy of NBL Bank Limited effective?
a) Yes
b) No
c) No-idea
Q.N.3) Is there feasibility of interest rate charged on loan and advances?
a) Yes
b) No
c) No-idea
Q.N.4) Is there rebate and discount on process of loan?
a) Yes
b) No
c) No-idea
Q.N.5) Is those amount of loan being utilized well?
a) Yes
b) No
c) No-idea
Q.N.6) Is the service charge relevant?
a) Yes
b) No
c) No-idea
Q.N.7) Is the loan providing process Lengthy \& Tough?
a) Yes
b) No
c) No-idea
Q.N.8) Is verification process of property kept as collateral satisfiable?
a) Yes
b) No
c) No-idea
Q.N.9) Is the loan repayment process tedious?
a) Yes
b) No
c) No-idea
Q.N.10) Is the financial position being strengthened from loan or not?
a) Yes
b) No
c) No-idea
Q.N.11) Is there any complain about loan providing process of NBL?
a) Yes
b) No
c) No-idea

Name:
Address:
Phone:

## APPENDIX

## Questionnaire III

Questionnaire to Staffs NABIL for the purpose of the study on loan management

Please Tick $\qquad$ in the blank.
Q.N.1) Which is the key risk in your bank?
a) Credit Risk

b) Liquidity Risk

c) Interest Rate Risk

d) Exchange Rate Risk

Q.N.2) Which factor plays an important role at disbursing loan?
a) Collateral
b) Profitability of Business
c) Projected Financial Statement
d) Image of the Business

e) Image of the Business Person

Q.N.3) Should default loan be rescheduled?
a) Yes

b) No $\square$
c) No Idea $\square$
Q.N.4) Which facto should be used as a remedy for recovering loan?
a) Collateral

b) Guarantor

c) Technical Support $\square$
d) Follow UP

Q.N.5) Do you feel necessity of Assets Management Office?
a) Yes $\square$
b) No $\square$
c) No Idea $\square$
Q.N.6) Have you felt necessity of Judiciary Office Support?
a) Yes $\square$
b) No

c) No Idea $\square$
Q.N.7) Is it necessary to collect regular information of customers business?
a) Yes

b) No

c) No Idea $\qquad$
Q.N.8) What are the internal causes for turning good loan and bad loan.
a) Weak Management $\square$
b) Bad Intension of Borrower $\square$
c) Weak Legal Provision $\square$
d) Weak Monitoring $\square$
e) Loose Credit Policy

Q.N.9) What are the external factors that may affect loan management of NABIL?
a) Economic \& Industrial Recession $\square$
b) High and Conservative Provision $\square$
c) Inconsistency of Government Policy

d) Political Bureaucracy and External Pressure

e) Lack of Effective Legal Provision for Loan Recovery $\square$
Q.N.10) Is it necessary for the amendment of NRB directives?
a) Yes $\square$
b) No $\square$
c) No Idea $\qquad$

## APPENDIX - I

TREND OF DEPOSIT COLLECTION OF NBL

| F.Y. | Year (X) | Deposit (Y) | XY | $X^{2}$ |
| :---: | :---: | :---: | :---: | :---: |
| $2006 / 07$ | 1 | 39014.20 | 39014.20 | 1 |
| $2007 / 08$ | 2 | 41829.30 | 83658.6 | 4 |
| $2008 / 09$ | 3 | 44628.2 | 133894.6 | 9 |
| $2009 / 10$ | 4 | 42406.01 | 169624.04 | 16 |
| $2010 / 11$ | 5 | 46804.21 | 234021.05 | 25 |
| Sum | $\sum X=15$ | $\sum Y=214681.9$ | $\sum X Y=660202.4$ | $\sum X^{2}=55$ |

The Standard trend regression line is

$$
\begin{equation*}
y=a+b x . \tag{i}
\end{equation*}
$$

Two normal equations are

$$
\begin{align*}
& \sum Y=\mathrm{na}+\mathrm{b} \sum X \ldots .  \tag{ii}\\
& \sum X \mathrm{Y}=\mathrm{a} \sum X+\mathrm{bx}^{2} . \tag{iii}
\end{align*}
$$

Substituting the value of normal equations from the above table

$$
\begin{equation*}
214681.9=5 a+15 b \tag{iv}
\end{equation*}
$$

$\qquad$
$660202.4=15 a+55 b$
Multiplying eq ${ }^{\mathrm{n}}$ (iv) by $3 \&$ subtracting eq ${ }^{\mathrm{n}}$ (v) we get,
$15 \mathrm{a}+45 \mathrm{~b}=644045.7$

$$
\begin{aligned}
-15 a-55 b & =-660202.4 \\
-10 b & =-16156.7
\end{aligned}
$$

$$
\therefore \mathrm{b}=1615.67
$$

Substituting the value of $b$ in $\mathrm{eq}^{\mathrm{n}}$ (iv) we get,

$$
\begin{aligned}
& 5 \mathrm{a}+15 \mathrm{~b}=20583.42 \\
& \text { or, } 5 \mathrm{a}+15 \times 2534.08=214681.9 \Rightarrow \text { Or, } 5 \mathrm{a}=214681.9-24235.05
\end{aligned}
$$

$$
\therefore \mathrm{a}=38089.37
$$

Thus, the required trend of

$$
\begin{aligned}
& y=a+b x \\
& Y=38089.37+1615.67 X
\end{aligned}
$$

The trend of deposit will be
In, $2011 / 12=38089.37+1615.67 \times 6=47783.4$
In $2012 / 13=38089.37+1615.67 \times 7=49399.1$
In $2013 / 14=38089.37+1615.67 \times 8=51014.7$
In $2014 / 15=38089.37+1615.67 \times 9=52630.4$
In $2015 / 16=38089.37+1615.67 \times 10=54246.1$

## APPENDIX - II

## TREND OF LOAN \& ADVANCES OF NBL

| F.Y. | Year (X) |  <br> Advances (Y) | XY | $\mathrm{X}^{2}$ |
| :---: | :---: | :---: | :---: | :---: |
| $2006 / 07$ | 1 | 11058.40 | 11058.4 | 1 |
| $2007 / 08$ | 2 | 13251.90 | 26503.8 | 4 |
| $2008 / 09$ | 3 | 17294.7 | 51884.1 | 9 |
| $2009 / 10$ | 4 | 23560.95 | 94243.8 | 16 |
| $2010 / 11$ | 5 | 24671.28 | 123356.4 | 25 |
| Sum | $\sum X=15$ | $\sum Y=89837.2$ | $\sum X Y$ | $\sum X^{2}=55$ |
| $=307046.4$ |  |  |  |  |

The Standard trend regression line is

$$
\begin{equation*}
y=a+b x . \tag{i}
\end{equation*}
$$

Two normal equations are

$$
\begin{align*}
& \sum Y=\mathrm{na}+\mathrm{b} \sum X \ldots  \tag{ii}\\
& \sum X \mathrm{Y}=\mathrm{a} \sum X+\mathrm{bx}^{2} . \tag{iii}
\end{align*}
$$

Substituting the value of normal equations from the above table
$89837.2=5 \mathrm{a}+15 \mathrm{~b}$
$307046.4=15 a+55 b$
Multiplying eq ${ }^{\mathrm{n}}$ (iv) by 3 \& subtracting eq ${ }^{\mathrm{n}}$ (v) from (iv) we get,
$15 a+45 b=89837.2 \times 3$
$-15 a-55 b=-307046.4$
$-10 b=-37534.8$

$$
\therefore \mathrm{b}=3753.48
$$

Substituting the value of $b$ in (iv), we get,
$5 \mathrm{a}+15 \times 3753.48=89837.2$
Or, $5 \mathrm{a}=89837.2-15 \times 3753.48 \quad \therefore \mathrm{a}=6707$
Thus the required trend of
$\mathrm{Y}=6707+3753.48 . \mathrm{X}$
The trend of Loan \& Advances will be
In $2011 / 12=6707+3753.48 \times 6=29227.9$
In $2012 / 13=6707+3753.48 \times 7=32981.4$
In $2013 / 14=6707+3753.48 \times 8=36734.8$
In $2014 / 15=6707+3753.48 \times 9=40488.3$
In $2015 / 16=6707+3753.48 \times 10=44241.8$

## APPENDIX - III

TREND OF DEPOSIT OF NABIL

| F.Y. | Year (X) | Deposit (Y) | XY | $\mathrm{X}^{2}$ |
| :---: | :---: | :---: | :---: | :---: |
| $2006 / 07$ | 1 | 23915.0 | 23915 | 1 |
| $2007 / 08$ | 2 | 31915.0 | 63830 | 4 |
| $2008 / 09$ | 3 | 37348.3 | 112044.9 | 9 |
| $2009 / 10$ | 4 | 46406.3 | 185625.2 | 16 |
| $2010 / 11$ | 5 | 49696.1 | 248480.5 | 25 |
|  | $\sum X=15$ | $\sum Y$ <br> $=189280.7$ | $\sum X Y$ <br> $=633895.6$ | $\sum X^{2}=55$ |

The Standard trend regression line is

$$
\begin{equation*}
y=a+b x . \tag{i}
\end{equation*}
$$

Two normal equations are

$$
\begin{align*}
& \sum Y=\mathrm{na}+\mathrm{b} \sum X \ldots  \tag{ii}\\
& \sum X \mathrm{Y}=\mathrm{a} \sum X+\mathrm{bx}^{2} . \tag{iii}
\end{align*}
$$

Substituting the value of normal equations from the above table

$$
189280.7=5 a+15 b .
$$

$\qquad$

$$
\begin{equation*}
633895.6=15 \mathrm{a}+55 \mathrm{~b} \tag{v}
\end{equation*}
$$

Multiplying eq ${ }^{\mathrm{n}}$ (iv) by 3 \& subtracting eq ${ }^{\mathrm{n}}$ (v) from it we get,
$15 \mathrm{a}+45 \mathrm{~b}=567842.10$
$-15 a-55 b=-633895.60$

$$
-10 b=-66053.5
$$

$\therefore \mathrm{b}=6605.35$
Substituting the value of $b$ in eq ${ }^{\mathrm{n}}$ (iv), we get,
$5 \mathrm{a}+15 \mathrm{~b}=189280.70$
Or, $5 \mathrm{a}=189280.70-99080.25$
$\therefore \mathrm{a}=18040.1$
Thus the required trend of
$\mathrm{Y}=11520.99+6755.13 \mathrm{X}$
The trend of deposit in NABIL will be -
In $2011 / 12=11520.99+6755.13 \times 6=52051.77$
In 2012/13 $=11520.99+6755.1=3 \times 7=58806.90$
In $2013 / 14=11520.99+6755.13 \times 8=655620.30$
In $2014 / 15=11520.99+6755.13 \times 9=72317.16$
In $2015 / 16=11520.99+6755.13 \times 10=79072.29$

APPENDIX - IV
TREND OF LOAN \& ADVANCES OF NABIL

| F.Y. | Year (X) |  <br> Advances (Y) | XY | $\mathrm{X}^{2}$ |
| :---: | :---: | :---: | :---: | :---: |
| $2006 / 07$ | 1 | 15545.8 | 31091.6 | 1 |
| $2007 / 08$ | 2 | 21365.1 | 64095.3 | 4 |
| $2008 / 09$ | 3 |  |  |  |
| $2009 / 10$ | 4 | 27589.9 | 110359.6 | 16 |
| $2010 / 11$ | 5 | 32268.9 | 161344.5 | 25 |
|  | $\sum X=15$ | $\sum Y=109692.2$ | $\sum_{=379813.5}$ | $\sum X^{2}=55$ |

The Standard trend regression line is

$$
\begin{equation*}
y=a+b x . \tag{i}
\end{equation*}
$$

Two normal equations are

$$
\begin{align*}
& \sum Y=\mathrm{na}+\mathrm{b} \sum X \ldots  \tag{ii}\\
& \sum X \mathrm{Y}=\mathrm{a} \sum X+\mathrm{bx}^{2} . \tag{iii}
\end{align*}
$$

Substituting the value of normal equations from the above table

$$
\begin{align*}
& 109692.2=5 a+15 b \ldots  \tag{iv}\\
& 379813.5=15 a+55 b \tag{v}
\end{align*}
$$

$\qquad$

Multiplying eq ${ }^{\mathrm{n}}$ (iv) by $3 \&$ subtracting eq ${ }^{\mathrm{n}}$ (v) from it we get,

$$
\begin{aligned}
15 a+45 b & =329076.6 \\
-15 a-55 b & =-379813.5 \\
\hline-10 b & =-50796.9
\end{aligned}
$$

$$
\therefore \mathrm{b}=5079.69
$$

Substituting b in $\mathrm{eq}^{\mathrm{n}}$ (iv), we get,

$$
\begin{aligned}
& 5 \mathrm{a}+16 \mathrm{~b}=109692.2 \\
& \text { Or, } 5 \mathrm{a}+15 \times 5079.69=109692.2 \Rightarrow \text { Or, } 5 \mathrm{a}=109692.20-76195.35 \\
& \quad=33496.85
\end{aligned}
$$

$$
\therefore \mathrm{a}=6699.37
$$

Thus the required regression line is

$$
Y=6699.37+5079.69 X
$$

The trend of Loan \& Advances will be
In 2011/12, Y=6699.37 $+5079.69 \times 6=37177.51$
In $2012 / 13, \mathrm{Y}=6699.37+5079.69 \times 7=42257.20$
In $2013 / 14, \mathrm{Y}=6699.37+5079.69 \times 8=47336.89$
In $2014 / 15, \mathrm{Y}=6699.37+5079.69 \times 9=52416.58$
In $2015 / 16, Y=6699.37+5079.69 \times 10=57489.37$

## APPENDIX - V

CALCULATION OF COEFFICIENT OF CORRELATION - NBL

| F.Y. | Deposit <br> (X) | Loan and <br> Advances <br> (Y) | $\mathrm{X}^{2}$ | $\mathrm{Y}^{2}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2006 / 07$ | 35829.70 | 9756.10 | 1283767402.09 | 95181487.21 | 349558136.17 |
| $2007 / 08$ | 39014.20 | 11058.40 | 1522107801.64 | 122288210.60 | 431434629.28 |
| $2008 / 09$ | 41829.30 | 13251.90 | 1749690338.49 | 175612853.60 | 554317700.67 |
| $2009 / 10$ | 42406.01 | 23560.95 | 1798269684.12 | 555118364.90 | 999125881.31 |
| $2010 / 11$ | 46804.21 | 24671.28 | 2190634073.72 | 608672056.83 | 1154719770.08 |
| Sum | 205883.42 | 82298.63 | 8544469300.06 | 1556872973.14 | 3489156117.51 |

As per sum
Coefficient of Correlation (r)

$$
\begin{aligned}
& \mathrm{r}=\frac{n \sum X Y-\sum X \sum Y}{\sqrt{n \sum X^{2}-\left(\sum X\right)^{2}} \cdot \sqrt{n \sum Y^{2}-(Y)^{2}}} \\
& =\frac{5 \times 3489156117.51-205883.42 \times 82295.63}{\sqrt{5 \times(8544469300.06)-(205883.42)^{2}} \cdot \sqrt{5 \times(1556872973.14)-(82298.63)^{2}}} \\
& \mathrm{r}=0.9630
\end{aligned}
$$

Where, $\mathrm{X}=$ Total deposit collection of the year
$\mathrm{Y}=$ Total loan disbursement of the year
$\mathrm{n}=$ No. of years
Therefore, $\mathrm{r}>0$, i.e., $0.8630>0$, the relationship between two variables, total deposits and loan disbursement are positively correlated.

Calculation of Probable Error,

$$
\begin{aligned}
& \mathrm{PE}=0.6745 \times \frac{1-r^{2}}{\sqrt{n}} \\
& =0.6745 \times \frac{1-(0.8630)^{2}}{\sqrt{5}} \\
& =0.07698
\end{aligned}
$$

## APPENDIX - VI

CALCULATION OF COEFFICIENT OF CORRELATION - NABIL

| F.Y. | Deposit <br> (X) | Loan and <br> Advances <br> (Y) | $\mathrm{X}^{2}$ | $\mathrm{Y}^{2}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2006 / 07$ | 19347.3 | 12922.5 | 374318017.3 | 166991006.3 | 250015484.3 |
| $2007 / 08$ | 23915.0 | 15545.8 | 571927225.0 | 241671891.6 | 371777807.0 |
| $2008 / 09$ | 31915.0 | 21365.1 | 1018567225.0 | 456467498.0 | 681867166.5 |
| $2009 / 10$ | 37348.3 | 27589.9 | 1394895513.0 | 761202582.0 | 1030435862.0 |
| $2010 / 11$ | 46406.3 | 32268.9 | 2153544680.0 | 1041281907.0 | 1497480254.0 |
| Sum | 158931.9 | 109692.2 | 5513252660.3 | 2667614890.9 | 3831576574.0 |

As per sum
Coefficient of Correlation (r)

$$
\begin{aligned}
& \mathrm{r}=\frac{n \sum X Y-\sum X \sum Y}{\sqrt{n \sum X^{2}-\left(\sum X\right)^{2}} \cdot \sqrt{n \sum Y^{2}-(Y)^{2}}} \\
& =\frac{5 \times 3831576574.0-158931.9 \times 109692.2}{\sqrt{5 \times 5513252660.3-25259348840} \cdot \sqrt{5 \times 2667614890.9-12032378740}} \\
& \mathrm{r}=0.9935
\end{aligned}
$$

Where, $\mathrm{X}=$ Total deposit collection of the year
$\mathrm{Y}=$ Total loan disbursement of the year
$\mathrm{n}=$ No. of years
Therefore, $\mathrm{r}>0$ i.e., $0.9935>0$, the relationship between two variables, total deposit (X) and loan disbursement are positively correlated.

Calculation of PE

$$
\begin{aligned}
& \mathrm{PE}=0.6745 \times \frac{1-r^{2}}{\sqrt{n}} \\
& =0.6745 \times \frac{1-(0.9935)^{2}}{\sqrt{5}} \\
& =0.00039
\end{aligned}
$$

## APPENDIX - VII

REGRESSION ANALYSIS - NBL

| F.Y. | Deposit (X) |  <br> Advances (Y) | XY | X $^{2}$ |
| :---: | :---: | :---: | :---: | :---: |
| $2006 / 07$ | 39014.20 | 11058.40 | 431434629.28 | 1522107801.64 |
| $2007 / 08$ | 41829.30 | 13251.90 | 554317700.67 | 1749690338.49 |
| $2008 / 09$ | 44628.2 | 17294.7 | 771831330.50 | 1991676235.00 |
| $2009 / 10$ | 42406.01 | 23560.95 | 999125881.31 | 1798269684.12 |
| $2010 / 11$ | 46804.21 | 24671.28 | 1154719770.08 | 2190634073.72 |
| Sum | 214681.92 | 89837.23 | 3911429311 | 9252378133 |

The Standard regression line is

$$
\begin{equation*}
y=a+b x \tag{i}
\end{equation*}
$$

Two normal equations are

$$
\begin{align*}
& \sum Y=\mathrm{na}+\mathrm{b} \sum X \ldots  \tag{ii}\\
& \sum X \mathrm{Y}=\mathrm{a} \sum X+\mathrm{bx}^{2} . \tag{iii}
\end{align*}
$$

Substituting the value of normal equations in equations, we get,

$$
\begin{equation*}
89837.23=5 a+b \times 214681.92 \tag{iv}
\end{equation*}
$$

$3911429311=214681.92+b \times 9252378133$
Multiplying eq ${ }^{\mathrm{n}}$ (iv) by 214681.92 and (v) by 5 and subtracting (v) from (iv)
we get, $\quad 1073409.6 \mathrm{a}+46088326770 \mathrm{~b}=19286429450$
$-1073409.60 a-46261890670 b=-19557146560$
$-173563895 b=-270717110$

$$
\therefore \mathrm{b}=1.5597
$$

Substituting $\mathrm{b}=1.5597$ in $\mathrm{eq}^{\mathrm{n}}$ (iv) we get,
$5 \mathrm{a}+\mathrm{b} \times 214681.92=89837.23$
$\therefore \mathrm{a}=-49002.78$ million
The regression equation for the trend of loan is
$Y=-49002.78+1.5597 X$ Million
Where; $\mathrm{X}=$ Deposit collection
$Y=$ Loan disbursement and dependent variable

## APPENDIX - VIII

## REGRESSION ANALYSIS - NABIL

| F.Y. | Deposit (X) |  <br> Advances (Y) | XY | X $^{2}$ |
| :---: | :---: | :---: | :---: | :---: |
| $2006 / 07$ | 23915.0 | 15545.8 | 371777807.0 | 571927225 |
| $2007 / 08$ | 31915.0 | 21365.1 | 681867166.5 | 1018567225 |
| $2008 / 09$ | 37348.3 | 275899.9 | 1030435862.0 | 1394895513 |
| $2009 / 10$ | 46406.3 | 32268.9 | 1497480254.0 | 2153544680 |
| $2010 / 11$ | 49696.1 | 38034.1 | 1890146437 | 2469702355 |
| Sum | 189280.7 | 134803.8 | 5471707527 | 7608636998 |

The Standard regression line is

$$
\begin{equation*}
y=a+b x \tag{i}
\end{equation*}
$$

Two normal equations are

$$
\begin{equation*}
\sum Y=\mathrm{na}+\mathrm{b} \sum X \tag{ii}
\end{equation*}
$$

$\sum X \mathrm{Y}=\mathrm{a} \sum X+\mathrm{bx}^{2}$
Substituting the value of normal equations in equations, we get,

$$
\begin{equation*}
134803.8=5 a+189280.7 b \tag{iv}
\end{equation*}
$$

$5471707527=189280.7 \mathrm{a}+7608636998 \mathrm{~b}$
Multiplying eq ${ }^{\mathrm{n}}$ (iv) by 189280.7 and (v) by 5 and subtracting (v) from (iv) we
get, $\quad 946403.5 \mathrm{a}+35827183390 \mathrm{~b}=25515757630$
$-946403.5 a-38043184990 b=27358537640$

$$
-2216001600 b=-1842780005
$$

$$
\therefore \mathrm{b}=0.83157
$$

Substituting $\mathrm{b}=0.83157$ in $\mathrm{eq}^{\mathrm{n}}$ (iv) we get,

$$
\begin{aligned}
& 5 a+189280.7 b=134803.8 \\
& \text { Or, } 5 a=134803.8-157401.82 \\
& \therefore a=-4519.604
\end{aligned}
$$

The regression equation for the trend of loan is'

$$
Y=-4519.604+0.8316 X \text { Million }
$$

Where; $\mathrm{X}=$ Deposit collection
$\mathrm{Y}=$ Loan disbursement and dependent variable


[^0]:    Loan and Advance
    Loan and Advance to Total deposit Ratio
    $=\frac{\text { Total Deposit }}{}$

