# CHAPTER-ONE INTRODUCTION

#### 1.1 Background

Economic development is the foundation development of any country. Economic development is supported by the financial infrastructure of that country. Financial institution constitutes an important part of the financial infrastructure. The main function of the bank is the collecting of idle finds and mobilizes them to productive sector causing overall economic development, which finally leads to national development of the country. Bank pools the fund through deposit and mobilize them to productive sector in the form of loans and advances. Bank is the financial institution which deals with money by accepting various types of deposits, disbursing loan and rendering several of financial services. It is the intermediary between the deficit and surplus of financial sources.

It cannot be denied that the issue of development rest upon the mobilization of resources and the bank deals in process channelising the available resources in the needed sectors. Commercial bank collects deposits from the public and the largest portion of deposited funds is utilized by disbursing loan and advances. The balance sheet of a commercial bank reflects deposit constitutes a major portion of the liabilities and the loan and advances constitutes a major portion of the assets side. Similarly, the profit of the bank depends upon the spreads that if enjoys between the interest it receive form the borrowers and that to be paid to the depositors. An average bank generates about 70% of its revenue through its lending. The return that the bank enjoys of deposit mobilization through loan and advances is very attractive but they do not come free of cost and free of risk. There is risk in lending. The bank graces umber of risk like interest rate risk, liquidity risk, credit risk, borrower risks etc. such in excessive from had led many banks to go bankrupt in number of countries.

Economic development of any country can be active only through a balance growth in the field of trade, commerce, industry and agriculture. It has equally self-evidenced that the development on these fields cannot made possible without achievement of sound banking system in the country. Many countries aspiring for the rapid economic development have developed banking and non- banking.

Banking industry has acquired a key position in mobilizing resources for finance and social economic development of a country. No function is important to the economy and its constituent part than financing. "Bank assists both the flow of goods and services from the products to the consumers and financial activities of the government. Banking provides the country with the monetary system of making payment and is in important part of the

financial system, which makes loans to maintain and increase the level of consumption and production in the economy" (American Institute of Banking, 1972:162).

The main objectives of the bank are collection of amount from public in a form of saving and providing short-term loan (for the development of industry, trade, and business) to the ones in need. The development of country's economy is possible when banking operation exist in both rural and urban area of the country. Development of banking facilities leads to the development of trade and industry. So, it is said that the bank is the backbone of economic development in modern competitive business world. At present financial institutions are viewed as catalyst in the process of the economic growth. The economic activities of a country can hardly be carried forward without the assistance of financial institutions. They are the indispensable part of the development process. Banking institutions are inevitable for mobilizing resources for finance and social economic development of a country and which is important to all parties i.e. general public, business, organization, government and other small financial institutions. The development of any country is always measured by its economic development though economic indices. That's why every country has given emphasis on boost up its economic. The mobilization of domestic resources is one of the key factors in the economic development of a country.

"The importance of the banking as the nerve center of economic development can't be over emphasized and it is said that bank which are the need of and great wealth of country water irrigation good banks are for the country's industry and trade" (Desai:1967). The bank draws surplus money from the public, who can't use the money at the time and lend to those who give attention to use for productive purpose. Bank lends loan to the customers, gain interest amount, the bank draw the money from institution or in divided or people pay the interest amount by interest rate. Banking institutions collects scattered financial resources from the mass and invest them among those who are associated with the economic, commercial and social activities of the country.

The economic activities of a country can hardly be carried forward without the assistance of financial institutions. They are the indispensable part of the development process. It is fact that the unorganized financial system leads the country nowhere. Therefore, central bank plays a major role on keeping the financial system of a country organized by providing those guidelines and directives.

Overall national development of any country depends upon the economic development of that country and economic development largely depends upon the financial infrastructure of that country. Therefore, the primary goal of any nation including Nepal is rapid economic development to promote the welfare of the people and the nation as well. Nepal

being one of the least developed countries has been trying to embark upon the path of economic development by economic growth rate and developing all sectors of economy.

Banking plays significant role in the economic development of a country. Bank is a resource for the economic development which maintains the self-confidence of various segments of society and extends credit to the people. So, commercial banks are those financial institutions mainly dealing with activities of the trade, commerce, industry and agriculture that seek regular financial and other helps from them for growing and flourishing, the objectives of commercial banks is to mobilized idle resources into the most profitable sector after collecting them form scattered source commercial bank contributes is significantly and the formation and mobilization of internal capital and development effort.

Integrated and speedy development of the country and its financial position of the people are possible only when competitive banking service with its effective credit management reaches nooks and corners of the country. In the developing country like Nepal, there is always lack of financial resources not only because of its real absence but because of the available resources not properly mobilized and not fully utilized for the productive purpose; in this course the commercial banks play a vital role. In modern times, commercial banks, which are facilitated, regulated and supervised by the Central bank, confined them and concentrated in their activities of fulfilling the financial needs of their customers. In the present scenario, Nepalese banking system is evolving itself as a powerful instrument of planning and economic growth of all the developed and underdeveloped sectors. The scope and scale of banking too have undergone substantial change in response to the saving and credit needs of people.

Bank came into existence mainly with the objectives of collecting the idle funds, mobilizing them into productive sector and causing an overall economic development. The bankers have the responsibility of safeguarding the interest of the depositors, the shareholders and the society that they are serving.

While talking about financial system there are two important aspects of financial deepening and financial repression. Financial repression is defined as a situation where the government and/ or central bank's regulations distort the operation of financial market. In other words, it means banks are dictated by the central bank and/or government not to charge more than certain amount of interest and restriction on other activities too. The indicators of such situation are ceiling on the nominal interest rate, mandatory investment in government paper, imposition of reserve requirement limiting their ability to lend and mandatory directed credit in priority and deprived sector (Koch & MacDonald: 1998: 310). Similarly, financial deepening is defined as the situation where banks are allowed to

charge interest on the prevailing market rate. There is negligible restrictions imposed by the central bank and commercial banks have been given total freedom on their activities.

The banking system in Nepal has no far away history. It was started during the period of Rana Prime Minister Ranaddip Singh. "Tejarath Adda" was established during the year 1877 A.D. It was the first step in institutional development of banking sector of Nepal and considered as the father of the today's modern banking institution of Nepal, which rendered a good services to government servant and the general public by providing loan at cheaper rate and mobilizing scattered resources from the public. Before its establishment, there was no any official unit for this type of service. People used to go to the local moneylender, goldsmith, landlord etc. They used to charge high interest rate against the collateral of gold, silver, land, house etc. Consequently, the major parts of the country remain untouched from these banking activities. The trade with India and other countries increase the necessity of the institutional banker, which can act more widely to enhance the trade and commerce and to touch the remote banking sector in the economy. Reviewing this situation, the "Udhyog Parishad" was constituted in 1936 A.D. One year after its formulation, it formulated a "Company Act" and "Nepal Bank Act" in 1937 A.D. Nepal Bank Limited was established under Nepal Bank Act in 1937 A.D. as a first commercial bank of Nepal with 10 million authorized capital. The central bank of Nepal, Nepal Rastra Bank was established in 1956 A.D (2013-01-14) under the Nepal Rastra Bank Act 1956 A.D. The second commercial bank of Nepal is Rastriya Banijya Bank which was established in 1966 (2022 B.S), twenty-nine years later the establishment of the first commercial bank. For industrial development, industrial development center was set up in 1956 A.D. (2013 B.S) which was converted to Nepal Industrial Development Corporation (NIDC) in 1959 A.D (2016 B.S). Similarly, Agricultural Development Bank (ADB) was established in 1976 A.D (2024 B.S.) with an objective to provide agricultural loan so that agricultural productivity could be enhanced through introduction of modern agricultural techniques. During Nineties, the banks and financial institutions have been increasing rapidly. As an open policy of the HMG's to get permission to invest in banking sector from private and foreign investor under commercial bank Act 1957 (2013), different private banks are getting permission to establish with the joint venture of other countries. Currently, there are 32 commercial banks operating in Nepali financial market along with 6 joint ventures with foreign investors.

The first joint venture of Nepal is Nabil Bank Limited established in 1984 A.D, joint ventures with United Arab Emirates Bank. Then two other banks Nepal Indosuez Bank Ltd. with Indosuez Bank of France and Nepal Grindlays Bank Limited with Grindlays Bank of London were established in 1986 A.D. But, currently these banks name changed as Nepal Investment Bank Limited and Standard Chartered Bank Limited respectively. Himalayan Bank Limited Bank is joint ventured with Habib Bank of Pakistan and NSBL Bank Limited is joint ventured with State Bank of India were established in 1993 A.D.

Everest Bank limited is joint ventured with Punjab National Bank India (early it was joint ventured with United Bank of Calcutta). Nepal Bangladesh Bank is joint ventured with I.F.I.C Bank Limited of Bangladesh which was established in 1993. Bank of Katmandu is joint ventured with SIAM commercial Bank public co. Thailand which was established in 1995 A.D. Nepal Bank of Ceylon is joint ventured with Nepal Credit and Commerce Bank which was established in 1997 A.D. Likewise, Lumbini Bank Limited and NIC bank Limited both was established in 1998 A.D. Others private commercial banks, namely Kumari Bank Limited was established in 1999, Machhapuchhere Bank Limited was established in 2000 A.D, Laxmi Bank Limited was established in 2001 A.D and Siddhartha Bank Limited was also established in 2001 A.D, Global Bank, Citizen Bank, Prime Bank, Sunrise Bank, Bank of Asia, Nepal Merchant Bank, Kist Bank are the newly established commercial bank.

#### **1.2 Statement of the Problem**

Most major banking problems have been caused by weakness in credit management. Banks should now have a keen awareness of the need to identify measure, monitor and control credit as well as to determine that they hold adequate capital against it. These risks that they are adequately compensated for risks incurred. So, to establish creditability position is a major issue in commercial banking sector during these days.

It is no debate that high profitable or successful organization can easily fulfill the every need of the organization, customers and can serve the society. To improve the profitability situation of the bank, it is necessary to establish the higher creditability position of the bank. Thus, the creditability is the major source and building better creditability position is the major strategy of every commercial bank.

Credit is the most effective and sincere area in commercial bank. It is regarded as the heart of every commercial bank. But the banking sector is far from this fact. Thus, credit management is considered as the heart issues in Nepalese commercial banking sector.

Credit management concept has appeared as a major research gap in Nepalese commercial banking sector. There is lack of such scientific and empirical research that could identify the issues of credit management in Nepalese commercial banks. In this regard, the performance of Nepalese commercial banks is to be analyzed in terms of their credit. Some research questions regarding to the credit practices, credit efficiencies, liquidity position, industrial environment, management quality, organization climate, are considered as a clear evident in present situation. Thus, the specific research questions regarding credit management in Nepalese commercial banking sector are identified as follows: -

- ➤ How efficiently banks are managing their liquidity position, assets and capital structure etc.?
- How far have banks been able to convert the mobilized resources into investment?
- > In which sector the banks made more investment in credit portfolio?
- > Is amount of non performing asset and loan loss provision in increasing trend?
- > What is the credit efficiency of the Nepalese Commercial banks?
- ▶ Is there any relationship between credit position and profitability situation?
- Which credit collection policy should be followed by the banks to decrease loan loss provision and non performing loan?
- ▶ How can maximize the profit and minimize the credit risk?

# **1.3** Objectives of the Study

The primary objective of the present study is to analyze capital structure and profitability management of Bank of Kathmandu, Nepal Credit and Commerce Bank Ltd. and Laxmi Bank Ltd. The specifics objectives of the present study are listed down as follows:

- To study the loan and advances, profitability and deposit position of the Nepalese commercial banks under study.
- To examine the level of non performing loan investments and portfolio behavior that exists within the banking industry.
- > To study and analyze the functions, procedures and activities of Nepalese commercial banks.
- To evaluate the credit contribution on total profitability and recovery status of the banks under study.
- To provide suggestions to the concerned banks on the basis of major findings of the study.

# **1.6** Significance of the Study

Commercial banking sector is considered as successful area in financial sector of Nepal. In today's context, commercial banks have to be more organic and sincere to establish better creditability position due to vast competition among them. The present concept deals with how commercial banks managed credit position and how do it affect to the organizational effectiveness.

Present study is very important from the point of view of bank management. The main strategy of every commercial bank is to establish the better creditability position, which has directly impacted the financial performance of an organization. Besides, it helps to build positive attitude and perception on customer that helps to make the organizational success in terms of better transaction, better turnover, and better profitability most of the earlier researches were focused on financial performance of bank but few researches were focused on creditability position of bank. From view point of bank credit is the most important in and sincere area. Thus, the present study is very important in viewing an organizational performance or position in terms of creditability.

# **1.7 Limitation of the Study**

The scope of the study is limitation only in commercial banks because of time and resource constraints. Most of the analyses are descriptive in present study. This study is very basic attempt to address the research issues; therefore, it might not be able to show casual linkage or effect. Instrument used for data collection is not standardized questionnaire.

Other limitations are:

- ) There are many factors that affect investment decision and valuation of the firm. However, this study will concentrate only on the factors that are related with investment.
- ) Mostly secondary data analyzed and only a period of 5-years trend is considered i.e. from 2007/08 to 2011/12 hence the conclusion drawn confines only to the above period.
- ) The truth of research result is based upon the available data from the bank.
- ) Three banks are taken to study of the investment policy.
- Due to the time constant three commercial banks were selected among 32 commercial banks.

# **1.8 Organizational Structure of the Study**

The present study is organized in such a way that the stated objectives can easily be fulfilled. The structure of the study will try to analyze the study in a systematic way. The study report has presented the systematic presentation and finding of the study.

#### **Chapter-I: Introduction**

This chapter describes the basic concept and background of the study. It has served orientation for readers to know about the basic information of the research area, various problems of the study, objectives of the study and need or significance of the study. It is oriented for readers for reporting giving them the perspective they need to understand the detailed information about coming chapter.

#### **Chapter- II: Review of Literature**

The second chapter of the study assures readers that they are familiar with important research that has been carried out in similar areas. It also establishes that the study as a link in a chain of research that is developing and emerging knowledge about concerned field.

# **Chapter-III: Research Methodology**

Research methodology refers to the various sequential steps to be adopted by a researcher in studying a problem with certain objectives in view. It describes about the various source of data related with study and various tools and techniques employed for presenting the data.

# **Chapter-IV: Presentation and Analysis of data**

This chapter analyses the data related with study and presents the finding of the study and also comments briefly on them.

#### **Chapter-V: Summary, Conclusion and Recommendations**

On the basis of the results from data analysis, the researcher concluded about the performance of the concerned organization in terms of credit management. It also gives important suggestions to the concerned organization for better improvement.

# CHAPTER-TWO REVIEW OF LITERATURE

Literatures are the main sources of information related with the study. The chapter deals with review of literature reach to the investment policy of the commercial banks. This chapter has been divided into two main sections. The first section of the chapter implies with the conceptual framework of the study which second section implies the review of previous studies.

# 2.1 Conceptual Review 2.1.1 Credit Management

Credit is regarded as the most income generating asset especially in commercial banks. Credit is regarded as the heart of the commercial banks in the sense that; it occupies large volume of transactions; it covers the main part of investment; most of the investment activities are based on credit; it is the main factor for crating profitability; it is the main source of creating profitability; it determines the profitability. It affects the overall economy of the country. In today's context, it also affects on national economy to some extent. If the bank provides credit to retailer, it will encourage the customer status. Similarly, if credit facility provided to trade & industry, the government will get tax from them and help to stimulate national economy. It is the security against depositors. It is proved from very beginning that credit is the shareholder's wealth maximization derivative. However, other factors can also affect profitability and wealth maximization but the most effective factor is regarded as credit. It is the most challenging job because it is backbone in commercial banks. Thus, effective management of credit should seriously be considered.

Management is the system, which helps to complete the every job effectively. Credit management is also the system, which helps to manage credit effectively. In other words, credit management refers management of credit exposures arising form loans, corporate bonds and credit derivatives. Credit exposures are the main source of investment in commercial banks and return on such investment is supposed to be main source of income.

Credit management strongly recommends analyzing and managing the credit risks. Credit risk is defined as the possibility that a borrower will fail to meet its obligations in accordance with the agreed terms and conditions credit risk is not restricted to lending activities only but includes off balance sheet and inter - bank explores. The goal of the credit risk management is to maximize a bank's risk adjusted rate of return by maintaining the credit risk exposure within acceptable parameters. For most banks, loan are the largest and most obvious sources of credit risk, however, other sources of credit risk exist through out the activities of a bank, including in the banking book, and in the trading book, and both increasingly facing credit risk in various financial instruments other than land,

including acceptances, inter bank transactions and guarantees and the settlement of transactions.

The credit policy of a firm provides the framework to determine whether or not to extend credit and how much credit to extend. The credit policy decision of a bank has two broad dimensions; credit standards and credit analysis. A firm has to establish and use standards in making credit decision, develop appropriate sources of credit information and methods of credit analysis.

"Banking is the business of collecting and safeguarding money as deposits and lending of same. The banker's business is then to taken the debt of other people to offer his own in exchange and there by to create money. He may be a dealer in debts, but in distress is only the observe of wealth and it would be equally permissible to describe the banker as a liquefies of wealth." (Jhingan, 1997: 81)

A frequently neglected but increasingly of the total marketing package is the role of the provision of credit. Credit policy is sometimes, omitted entirely from an analysis of marketing mix by academics. This is despite empirical findings that although the credit package is unlikely to be the primary factor in determining overall patronage success. It may serve to clinch a contract when suppliers' offerings are otherwise equally attractive.

The study seeks first and like some other to examine the relative importance of credit policy in marketing decisions and, seconds, to assess the case for differentiating credit packages. It is also presented the result of an empirical survey into the credit policies pursued. In concept, the empirical study is similar to earlier studies.

The credit policy cannot be sound unless it is based on a clear knowledge of the cost of credit. The cost is determined by the quantity of credit sales, the average collection period and the opportunity cost of capital. Whilst a marginal costing approach should be used which takes only incremental cost into account, the full opportunity cost has to be considered. The overall cost of credit will also be affected by the expected rate of inflation. Foreign accurate assessment of the cost of capital, a discounting approach should be used. A credit package can be differentiated in various ways; by duration, by interest charge, and by the interaction with the rest of the pricing mix.

A commercial Bank is business organization that receives and holds deposits of fund from others makes loans or extends credits and transfers funds by written order of deposits.

Commercial Bank is a corporation, which accepts demand deposits subject to check and makes shorts-term loans to business enterprises, regardless of the scope of its other services.

A commercial banker is a dealer in money and substitute for money such as cheques or bill of exchange. He also provides a variety of financial services.

Commercial bank Act 2031 B.S. of Nepal has defined that "A commercial bank is one which exchanges money, deposits money, accepts deposits, grants loans and performs commercial banking functions and which is not a bank mean for cooperative, agriculture, industries for such specific purpose."

Bank and Financial Institutions Ordinance, 2060 has accumulated five banking acts including Commercial Bank Act 2031, which defines the bank with respect to their transactions. This Act is trying to categorize the banking institutions in two ways based on their transactions. According to this Act, "Bank is the institution which performs its transaction under the provisions mentioned on section 47 of this Act."

This Act has laid emphasis on the functions of commercial bank while defining it. Commercial banks provide short-term debts necessary for trade and commerce. They take deposits from the public and grant loans in different forms. They purchase and discount bills for exchange, promissory notes and exchange foreign currency. They discharge various functions on the behalf of their customers provided that they are paid for their services.

Financial activities are necessary for the economic development of the country and commercial banking in this context is the heart of financial system. Optimal investment decision plays a vital role in each and every organization. But especially for the commercial bank and other financial institutions the sound knowledge of investment is the must because this subject is relevant for all surrounding that mobilize funds in different sectors in view of return.

As it is concerned to the commercial banks and other financial institution, they must mobilize (i.e., investment in different sectors) their collections (deposits) and other funds towards the profitable, secured and marketable sectors so that they will be in profit. For this purpose these banks and financial institutions should gather the sufficient information about the firm (client) to which supposed to be invested, these information include as financial background, nature of business as well as its ability to pay the loan back. These all information should be gathered from the viewpoint of security.

The income and profit of the bank depend upon the lending procedure applied by the bank. And, lending policy and investment in different securities also affect the income and profit. In the investment procedures and policies is always taken in mind that "the greater the credit created by the bank, the higher will be the profitability". A sound lending and investment policy is not only prerequisite for bank's profitability but also crucially significant for the promotion of commercial savings of a developing country like Nepal. The sound policies help commercial banks maximize quality and quantity of investment and there by, achieve the own objective of profit maximization and social welfare. Formulation of sound investment policies and coordinated and planned efforts pushes forward the forces of economic growth.

Commercial banks as financial institutions perform a number of internal functions. Among them, providing credit is considered as most important one. "Commercial banks bring into being the most important ingredient of the money supply, demand deposit through the creation of credit in the form of loan and investment."

#### 2.1.2 Investment Policy-Concept

The income and profit of the bank depends upon its investment policy, lending policy and investment of its fund in different securities. In the investment procedures and policies it is always taken in mind that "the greater the credit created by the bank, the higher will be the profitability. A sound lending and investment policy is not only the prerequisite for bank's profitability, but also crucially significant for the promotion of commercial savings of a financially backward country like Nepal.

The banks are such type of institutions, which deals in money and substitute for money. They also deal with credit and credit instruments. To collects fund and mobilize them in a good investment is not a joke for such an institutions. An investment of fund may be the question of life and death of the bank. Thus the banker must think seriously before making an investment decision. The investment policy of a bank consists of earning high returns on its un-loaned resources. But it has to keep in view the safety and liquidity of resources so as to meet the objectives of profitability conflicts with those of safety and liquidity the wise investment policy its strike a judicious balance among them. Therefore a bank should lay down its investment policy in such a manner so as to ensure the safety and liquidity of its funds and at the same time maximum its profit.

Chery and Moses said, "The investment objective is to increase systematically the individual wealth, defined as asset minus liabilities. The higher the level of designed wealth the higher it will be received. An investor seeking higher return must be willing to face higher level of risk." (Chery & mosses, 1988:465).

Credit and investment command number 1 and number 2 positions and investment at times serves as substitute of loan. That is why when loan demands weakens; a bank increases securities in investment portfolio. Similarly banks start shedding securities from investment portfolio when loan demand increases to entertain loan request. This warrants careful management of investment portfolio so that net interest income/spread (excess of interest income over interest expenses) can be maximized."(Dhahal & Dhahal, 2002:88).

Every bank manager should have awareness about the major risks associated with the securities. Because price of securities are affected by the some kind of risk like credit risk, interest rate risk and liquidity risk. These are the sources of investment risk. "The policy should specify what rated securities it wants to held in the portfolio. If unrated, whether it

buys or not. Since risk is overpriced during recession and under priced during boom, banks prefer buying medium grade and high grade securities during recession and boom respectively. Normally banks buy investment rated securities only." (Dhahal & Dhahal,2002:92)

# 2.1.3 Lending and Consideration for Sound Lending and Investment

The major source of income and profit generation to each and every banks and financial institution is its loan investment in different sectors .If loan are not distributed properly and cautiously then it may be the main cause of the failure of the company .As prescribed by Hrishikes Bhattacharya in his book "Banking strategy ,credit appraisal and lending decisions, a Risk-Return Framework," the important consideration which the finance company should review and analyze in briefly illustrated below.

# ) Principle of Sound Lending

# a. Safety

Every finance company must invest in those opportunities which is safe against losses are less risky. Collateral should be accepted which is not so depreciable and whose value hold constancy.

# b. Security

Finance company should accept that kind of security which is commercial, durable, marketable and hass high market price. In those cases, "MAST" should be applied for the investment.

Where,

- M = Marketability
- A = Ascertain ability
- S = Stability
- T = Transferability

# c. Profitability

A financial institution can maximize its volume of wealth through maximization of return on their investment and lending .So, they must invest their fund where they gain Maximum profit. The profit of these companies mainly depends on the interest rate, volume of loan, its time period and nature of investment in different securities.

# d. Liquidity

People deposit money at these companies with confidence that they will be repaid their money when they need it. To maintain such confidence of the depositors, the company must keep this point in mind while investing its excess fund in different securities or at time of lending in different securities or at time of lending so that it can meet or short-term obligation when they become due for payment.

#### e. Purpose of Loan

Why does a customer need a loan? This is very important question for any banker. If borrowing misuses the loan granted by these companies they can never repay and company will passes heavy bad debts. Detailed information about the scheme of the project or activities should be examined before lending.

#### f. Diversification

"A financial institution should not lay all its eggs on the same basket." In order to minimize risk, diversification on its investment on different sectors should be adopted which helps to sustain loss according to the law of average because if securities of a company deprived, there may be appreciation in the securities of other companies, so the loss can be recovered.

#### g. Legality

Illegal securities will bring out many problems for the investor. The financial companies must follow the rules and regulations as different directions issued by Nepal Rastra Bank and other concerning bodies while mobilizing is funds.

#### h. Tangibility

Though it may be considered that tangible property doesn't yield and income apart from direct satisfaction of possession of property. Many times, intangible securities have lost their value. So, finance company should prefer tangible security to intangible one.

#### i. National Interest

Even if an advance satisfies all the aforesaid principals, it may still not be suitable. The lending program may run counter to national interest. Central Bank may have issued directives prohibiting finance companies to allow particular types of advances. (Bhattacharya,1998:156).

# **Major information for analyzing the potential of borrower for lending**

- a. Payment record and credit information from concern field
- b. Income level and its source
- c. Residence (local or migrates)
- d. Marital status (single ,married, widowed or divorced)
- e. Age factor
- f. References
- g. Reserves, assets and collateral

# **)** Basic of granting loan and analysis of credit risk

World is surrounded by certain risk associated with the related field of task. The risk is vital factor which can be seen in the field of lending and investing money by finance companies. It is true that "There is no return without risk." But by using certain criteria's they can minimize some portion of risk associated with it. With respect to this ,finance institution approach the loan request by analyzing five 'C<sub>s</sub>' of credit risk as illustrated by Hrishikes Bhattacharya

a. Character of the applicant

- b. Capacity of qualification and work experience
- c. Capital of the proposed plan
- d. Collateral for security and its safety ness
- e. Conditions of credit environment and credit information

Additionally some external factor also directly and indirectly affect on loan granting decision. They can be political crisis, national and international economic condition, policy and practice, cultural practice etc. (Bhattacharya,1998,124).

# **)** Basic requirement in a borrower / Lending documentation

Finance companies cannot lend money to just anyone blindfoldly. It should be confident regarding the trustworthiness and intentions of the probable borrower beforehand. The borrower, on the other hand, should provide finance companies with all portioning documents that the company seeks to build confidence on borrower. There are some requirements that should be fulfilled by the client to stand him as a probable borrower. The basic requirement that the borrower should submit with loan proposal are as follows:

# A. If applicant is an individual

- a) Applicant should be Nepali citizen. Citizenship certificate should be submitted.
- b) Should have good knowledge about work they intend to commerce.
- c) Normally the applicant should not have taken loan from any other institutions previously.
- d) Applicant should present the job planning scheme with perfect business plan.
- e) Personal information is also required.
- f) Business and income tax registration certificate with renewal.
- g) Quotation and personal guarantee with reference of well recognized personal.
- h) Certificate of ownership.
- i) Driving license if required.
- j) Description of securities with full proof evidence.
- k) Other documentation as per company rules whichever required

# **B**) If the applicant is partnership firm

- a) The firm should be registered in related department.
- b) The firm should be registered in related department.
- c) The person dealing with the borrowing of the firm should be specified in the partnership contract.
- d) Income Tax Registration certificate with renewal.
- e) And other required and possible items from point A.

# C) If the applicant is private limited company or public limited company

- a) Company should be registered in company register office.
- b) Working place, project place should be specified and all the assets should be in the name of company.

- c) Audited Balance sheet, profit and loss account, and other required financial documents at least of one year should be presented.
  - d) If the work place or project place is leased the lease contract should be presented.
  - e) The authorized person should apply for the loan.
  - f) Loan amount applied must be within the limit of memorandum of the company or must be decided by the board.
  - g) Decision of the promoters.
  - h) Personal information of the main person is required.
  - i) Written personal guarantee of the proprietors is required.
  - j) Citizenship of promoters and proprietors is required.
  - k) And other required and possible documents from A and B should be presented.

# 1. Basic feature of collateral

Collateral is the most important item for granting loan. Loan should be granteds by analyzing details related to collateral. Generally in Nepalese practice land and building; gold silver and some classified document are accepted as safe and reliable collateral ,but there are some features which must be analyzed by finance companies, they are;

- a) Market availability
- b) Price stability
- c) Durability
- d) Storing facility
- e) Transportation
- f) Profitability

# **J** Guidelines of Assessing Risk

Risk is dependent upon the quality found in each 'c' and the combination of these five 'C<sub>s</sub>'. Assuming the same conditions prevail, the following guideline is generally suggested.(Bhattacharya,1998;135).

	8
Applicant characteristics	Credit risk
Character +capacity	Very low
Character + capacity without capital	Low to moderate
Character + capacity but insufficient capital	Low to moderate
Capacity + capital but impaired character	Moderate
Capacity + capital without character	High
Character + capital without capacity	High
Character + no capital + No capacity	Very high
Capital + No character + No capacity	Very high
Capital + No character + No capital	Fraudulent

Table No. 2.1Guidelines of Assessing Risk

Source: Book by Hrishikes Bhattacharya, 1998

# 2.1.4 Objectives of Sound Credit Policy

Considering the importance of lending to the individual bank and also to the society it serves it is imperative that the bank meticulously plus its credit operations. Second credit policy whose objectives are as follows is a foundation in this direction; (Dhahal & Dhaha,2002:115).

# **1.** To have performing assets

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

# 2. To contribute to economic development

Sound credit policy is required to ensure that loans are given to the productive sector which contributes to the society in a number of ways cited above.

# 3. To give guidance to lending officials

A borrower should be assured that there will be no discrimination whether he deals with one officer or another and one branch or another .A sound credit policy is impetrative to achieve a uniform standard procedure throughout the organization. In the absence of a sound credit policy it is likely that individual loan officers make judgment inconsistent from each other and also inconsistent with the organizational goal.

# 4. To establish standard for control

Every policy requires periodic follow up to ensure its proper implementation. A sound policy helps to determine the variance between actual performance and practices and to take corrective actions. A sound policy is always flexible and works a guideline rather than as a straitjacket. However, if the deviation between the practice and policy is observed, proper education to lending offices or amendment of the policy becomes inevitable.

These objectives can be summarized as the sound policies help commercial banks to maximize quality and quantity of investment and thereby achieve the own objectives of profit maximization. Formulation of sound policies and coordinates planned efforts pushes forward the forces of economic growth. Sound policy is also important to find the deviation between the practice and policy and establish a standard for control.

# 2.1.5 Essentials of Credit

According to ML Jhingan the following are the essential features of credit:

# 1. Trust and confidence

Trust is the fundamental element of credit. The lender will lend his money or goods on the trust and confidence that the borrower or buyer will pay back the money or price in time.

# 2. Time element

All credit transactions involve time element .Money is borrowed or goods are bought with a promise to repay the money or pay the price on some future date.

# **3.** Transfer of goods and service

Credit involves transfer of goods and services buy the seller to the buyer on the pay back promise of the buyer on some future date.

# 4. Willingness and Ability

Credit depends on a person's willingness and ability to pay the borrowed money. In fact, credit of a person's depends on his character, capacity and capital. It is these three ' $C_s$ ' on which a man's credit depends. A person who is honest and fair in his dealings possesses the capacity of making his business a success. Such a person can get credit easily.

# 5. Purpose of credit

Banks and financial institutions give large amount of credit for productive purposes rather than for consumption purposes.

# 6. Security

Security in the form of property, gold, silver, bonds or shares is an important element for raising credit.

# 2.1.6 Defects of credit

Credit creation or credit function is the demand of economy. It helps in the economic prosperity as it is economical, it increases productivity of capital, it encourages investment in the economy, and it helps in the expansion of internal and external trade of a country. Thus it is important for the overall economic development of country. But sometimes excess supply of credit may be harmful. "According to ML Jhingan, credit is a dangerous tool if it is not properly controlled and managed. The following are some of the defects of credit": (Jhingan,1997:155).

# 1. Too much and too little credit is harmful

Too much and too little credit is harmful for the economy. Too much of credit leads to inflation, which causes direct and immediate damage to creditors and customers. On the developing country, too little of credit leads to deflation which brings down the level of output, employment and income.

# 2. Growth of monopolies

Too much of credit leads to the concentration of capital and wealth in the hands of a few capitalists. This leads to growth of monopolies which exploit both consumers and workers.

# **3.** Wastage of resources

When banks create excessive credit, it may be used for productive and unproductive purposes. If too much of credit is used for production, it leads to over capitalization and over production and consequently to wastage of resources. Similarly if credit is given liberally for unproductive purposes it also leads to wastage of resources.

# 4. Cyclical fluctuations

When there is an excess supply of credit, it leads to a boom. When it contracts, there is a slump. In a boom output, employment and income is increased which leads to over production. On the contrary, they decline during a depression thereby leading to under consumption. Such cyclical fluctuation brings about untold miseries to the people.

# 5. Extravagance

Easy availability of credit leads to extravagance on the part of people. People indulge in conspicuous consumption. They buy those goods which they do not need even. With borrowed money; they spend recklessly on luxury articles. The some is the case with businessmen and even governments who invert in unproductive enterprises and scheme.

# 7. Speculation and uncertainty

Over issue of credit encourages speculation which leads to abnormal rise in prices? The rise in prices, in turn, brings an element of uncertainty into trade and business. Uncertainty hides economic progress.

# 8. Black money

Excessive supply of credit encourages people to a mass money and wealth. For this they tend to adopt underhand means and exploit others. To become rich, they evade taxes, conceal income and wealth and thus hoard black money.

# 9. Political instability

Over issue of credit leading to hyper inflation leads to political instability and even the downfall of government.

# 2.1.7 Lending procedures

According to Bhuwan Dahal and Sarita Dahal, lending procedures include loan approval and disbursement process: Dhahal & Dhahal,2002:134).

# ) Loan approval process

Loan is approved by approving authority only after being convinced that the loan will be repaid together with interest. There are many processes involved to approve the loan which has been appended below:

# 1. Application

A borrower is normally required to submit an application to the bank along with required documents: project proposal, historical financial statements and documents pertaining to company's legal existence.

# 2. Conducting the interview

Though the documents submitted gives various information about the borrowers and is of great importance. An interview with the borrower about his business, his background etc are taken to have more information about him. Normally, such interview takes place at the bank premise.

# 3. The credit analysis

There is a practice of analyzing  $5c_s$  of credit by the financial institutions.

- a) Character
- b) Capacity
- c) Condition
- d) Collateral
- e) Capital

# 4. Forecast and risk rating system

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

# 5. Return

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

# 6. Liquidation

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

#### 7. Credit worthiness and debt structure

If analyst finds the borrower creditworthiness and decides to extend loan, he should structure the debt facility to be extended.

# ) Loan disbursement process in various lines of credit approved by the bank have been presented below

#### **Overdraft**:

Borrower can draw a cheque in current a/c up to the approved limit at any time as per the need.

# **Demand loan**:

Loan is disbursed as when demanded by the borrower by debiting demand loan a/c and by normally crediting current a/c.

#### Short term loan:

Full limit is disbursed as per schedule normally fixed in advance by debiting long term loan a/c.

#### **Documentary negotiation**:

Upon submission of the compliant documents, documents are negotiated and fund is credited to the borrower's a/c less margin, if any.

#### **Bills purchase**:

Banks purchase the bills drawn on other branches/banks and credit the proceeds to the borrower's a/c less commission and margin, if any.

#### Letter of credit:

A letter of credit is established on behalf of the customer in favor of the exporter/seller for the import of goods and service unto the approved limit since this is a contingent liability for the back, bank credit customer's account. Normally, a certain percent fund is taken from the customers and the customer's margin a/c is credited.

# Guarantee:

Guarantee is issued on the behalf of customer in favor of the other party uptown the approved limit. Since this is also a contingent liability, banks credit customers guarantee a/c normally a certain percent amount is taken from the customer and the customer's margin a/c is credited.

# 2.1.8 Review of Rules, Regulation and Directives of NRB Regarding Credit Management of Commercial Banks

Various rules, regulation, acts and directives are reviewed while preparing the concept of this study. Different types of directives, which are issued for the commercial banks to manage credit in a proper way, obviously, these directives and actions towards the commercial banks by NRB are playing the great role for the comparative analysis of credit management of the commercial banks.

NRB is the leader of the money market. It is the chief of all the banks operating in the country. It supervises, regulates and controls the functions of commercial banks and other

financial institutions. Various directives must have direct or indirect impact while making decisions to discuss those rules and regulations which are formulated by NRB in terms of investment and credit to priority sector, deprived sector, other institutions, 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 to expand the branch and 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 provision established by NRB in the form of prudential norms in above relevant are briefly discussed here:

# 2.1.8.1 "Regulation to Maintain Minimum Capital Fund by the Commercial Bank as per NRB Directive"

Capital adequacy ratio is the relationship between capital funds to total risk weighted assets of the bank. The higher the CAR, the less levered the bank and safer from depositor's point of view because the proportion of shareholders' stake to the risk weighted assets is also high.

Risk weight is assigned to various assets and off balance sheet items of the bank to arrive at the risk weighted assets. Banks in Nepal are required to have minimum 6% core capital and 12% total capital fund of total risk weighted assets.

Table No.:2.2Fund Required on the basis of WRA(%)

Core capital	Capital fund
6	12

Source: NRB directives 2009/10

#### **Classification of Capital:**

To calculate the capital fund, commercial banks should classify the capital in two parts;

a) Core capital

b) Supplementary capital

And,

Capital fund= core capital + supplementary capital

Provision for pass loan made up to 1.25% of total risk weighted assets is treated as supplementary capital.

Capital fund ratio  $X \frac{\text{core capital } \Gamma \text{ supplementary capital}}{\text{Sum of weighted risk assets}} | 100$ 

Where, sum of weighted risk assets= Total WRA appeared in balance sheet+ Total WRA appeared outside the balance sheet

# 2.1.9 "Loan Classification and Loan Loss Provisioning"

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

# a. Pass loan

All loan and advances whose principal amount is past due for period up to three months should be included in this category. These loans are classified as performing loans.

# b. Substandard

All loans and advances that are past due for a period up to six months should be included in this category. Sub standard loan is classified as non performing loan.

# c. Doubtful

All loan and advances that are due for a period of six months to one year should be included in this category. Doubtful loan is also from the category of non performing loan.

# d. Loss

All loan and advances which are due for a period of more than one year should be included in this category.

# ) Provision for loss loan:

Loan should be classified as loss in the following cases,

a. No security or security not as per contract.

- b. Borrower as been declared as bankrupt.
- c. In the case of borrower not found.
- d. Purchased or discounted bill are not repayable within 90 days from due date.
- e. Loans amount has not been used for taken purpose.
- f. Loan provided for blacklisted borrowers.

# 2.1.10 Loan Loss Provision

The loan loss provision on the basis of outstanding loans and advances and bills purchased classified as per directives, which is as follows:

Classification of loans	Loan loss provision
Pass	1%
Substandard	25%
Doubtful	50%
Loss	100%

Table No.:2.3 Classification of Loans

Source: NRB Directives 2008/09

- Bank can reschedule and restructuring loan if nonperforming loan receiver submit the external/internal reasons. If loan is restructured and rescheduled, provision requirement for such loan is minimum 12.5%.
- ) If priority and deprived sector loan is restructured and rescheduled, such loan will have to be provisioned at 25% of the provision percentage to loan loss.

- ) Provision requirement in case of loan given against personal guarantee only is additional 20% for pass, substandard and doubtful loans.
- ) Loss provision for performing loan is called general loan loss provision and loss provision for non performing loan is called specific loan loss provision.

# 2.1.11 "Directives Relating to Single Borrower Credit Limit"

With the objectives of lowering the risk of over concentration of bank loans to a few big borrowers and also to increase the access of small and middle size borrowers to the bank loans. NRB has directed commercial bank to set an upper limit for single borrower limit. According to the directive, commercial banks may extend credit to single borrower or group of related borrowers in such a way that the amount if fund based loan 9 overdraft, trust receipt, term loan etc) and advances up to 25% of care capital and non fund off the balance sheet facilities like letters of credit, guarantees, acceptances, commitments is up to 50% of its core capital fund ,but in case of advances and facilities to be used for the purpose of importing specified merchandize by the following public corporations, the exemption in the limit of credits and facilities is not applicable:

# Table No.:2.4Public Corporation and their Specified Merchandize

Name of corporation	Merchandize
Nepal oil corporation	Petrol, Diesel, Kerosene and LPG gas
Agriculture Input corporation	Fertilizers, seeds
Nepal food corporation	Cereals

Source: NRB Directives 2009/10

# 2.1.12 Directives Regarding Investments in Shares and Securities by Commercials Banks

1) Arrangement as to implementation of investment K policy under approval of the board of directors

Banks should prepare written policy relating to investments in the shares and securities of organized institutions. Such policies should be implemented only under the approval of restrictions as to investment by the banks securities by NRB.

# 2) Arrangement relating to investment in shares and securities of organized institutions

a) Bank may invest in shares and securities of any organized institution not exceeding 10% of the paid up capital of such organized institution. Any amount of investment made in excess of this limit for the purpose of calculation of the capital fund, should be deducted from the core capital fund.

b) The total amount of investment should be restricted to 30% of the paid up capital of the bank. Any amount of investment made on excess of 30% of paid up capital of the bank, for the purpose of calculation of the capital fund, should be deducted from the core capital fund.

c) Banks should invest in the X shares and securities of organized institutions, which are already listed in the stock Bank exchange.

d) Where the shares and securities are not listed within the period prescribed, provisioning equivalent to the whole amount of such investment be provided and credited to investment adjustment reserve. The outstanding amount in such reserve should not be utilized for any other purpose till the sold shares and securities of the organized institution are listed. The outstanding amount in investment adjustment reserve should be included supplementary capital.

e) Banks should not invest in any shares, securities and hybrid capital instruments issued by any banks and financial institutions licensed by NRB where such investment exists prior to issuance of this directive such investment should be brought within there strives limitations imposed by this directive within 3 years.

# 2.1.13 Directives Regarding Interest Rate Spread

The interest rate spread is the difference between the interest taken from loan and advance or investment and the interest given to the depositor. As NRB direction lending rate and deposit rate should not exceed 5%. Such rates are calculated as under:

WALR= Interest income for a month/Total interest-earned asset

WADR= Interest expense for a month/Total deposit outstanding

Interest spread= WALR-WADR

Where;

J

WALR= Weighted average lending rate

WADR=Weighted average deposit rate

# 2.1.14 Requirements to Extend Loans and Advances to Productive and Priority Sector (Including Deprived Sector)

Commercial banks are required to extend loans and advances in the productive, priority and deprived sector as follows:

of total advances,

- 40% to productive sector, including
  - 12% to priority sector, including
- ) 0.25-3% to deprived sector

#### **Productive sector credit**

Productive sector credit includes advances to priority sector and other productive sector. Priority sector in turn includes deprives sector.

#### **Priority sector credit**

Priority sector is defined to include micro and small enterprises which help to increase production, employment and income as prioritized under the national development plans with an objective to uplift the living standard of low income people are progressively reducing the prevalent unemployment, poverty, economic inequality and backwardness. Micro and small enterprises are classified as agriculture enterprises, cottage and small industries and services. In addition, other businesses specified by NRB from time to time are also included under micro and small enterprises. All credit extended to priority sector up to the limit specified by NRB are termed as priority sector credit. Commercial banks extend credit under priority sector programs specified by NRB time to time.

#### **Deprived sector credit**

Deprived sector includes low income and particularly socially backward women, tribes, lower caste, blind, hearing impaired and physically handicapped persons and squatter family. all credit extended for the enticements of the economic and social status of deprived sector unto the limit specified by NRB is termed as "Deprived Sector Credit." Examination of the fulfillment of priority or deprived sector lending shall be made at the end of each quarter ( i.e. mid act, mid Jan, mid April and mid July ) on the basis of total outstanding loan and advances(except investments) as of immediately preceding six months. On the failure of fulfilling such lending, penalty in shortfall amount at the maximum prevailing lending rate of the bank during the examination period shall be imposed under sub section 2 of section 32 of NRB act, 2012. If the priority sector lending is fulfilled, bit the deprived sector is not, the penalty is imposed on shortfall amount and if both sector lending is not fulfilled, then the penalty is imposed on greater shortfall amount for one sector only.

# 2.2 Review of Previous Studies

Several studies have been conducted on the field of credit management, within the country and aboard. So, under this section, the available literatures related to credit management are divided into two parts i.e. Review from international context and Review from Nepalese context.

# 2.2.1 Review from International Context

In international context, various studies have been done on the field of credit management and a different article has been presented to clarify the topic. Among these articles and book, some are tried to reviews as the following way:

#### 2.2.1.1 Meir Kohn's Study

According to Meir Kohn illustrated in his book entitled "Financial market and institution" has illustrated that:

"The gain to borrower is obvious, if these investments are sufficiently productive, you will be happy to pay interest on the loan to pay back in the future more purchasing power than you received. Lending is to gain from trade. The interest you pay gives lender a better return than they could achieve otherwise, what are their alternatives? They could make productive investment themselves. But finding productive investment is difficult .Some people are much better at it than others. Typically savers do better by lending their money to that highly productive use for it than by making investment themselves."

- 1. The committee examined the existing system of lending and recommended the following broad changes in the credit system.
- 2. The credit needs of borrowers are assessed on the basis of their business plans.
- 3. Bank credit only is supplementary to the borrower's resources and not is replacement of them, i.e. banks not to finance one hundred percentage of borrower's requirement.
- 4. Borrowers are required to hold inventory and receives according to norms prescribe by reserve bank of India from tome to time.
- 5. Credit be made available in different components only, depending upon the nature of holding of various current assets.
- 6. In order to facilities a close watch on the operations of borrowers, they are required to submit at regular intervals, data regarding their business and financial operations both for part and future period. (Meir,1996:49).

# 2.2.1.2 H.D Crosse's Study

H.D Crosse says in this regard "lending is the essences of commercial banking, consequently the formulation and implementation of sound 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."(Crosse,1963:98).

Credit creating function or lending is very important for all commercial banks. But doing credit function without applying policies and practices is not enough to lead the success. So to manage the different kind of credit function, to maximize return and to minimize credit risk, every bank should be conscious about formulation and implementation of credit policies and practices.

# 2.2.1.3 Peter S. Rose's Study

Peter S. Rose has emphasized on the factors affecting default risk and interest rates. He opines that "Another important factor causing one interest rate to differ from another in the global market place is the degree of default risk carried by individual assets. Investors in financial assets face many different kinds of risk, but one of the most important is default risk the risk that a borrower will but make all promised payments at the agreed upon times. All debts except some government securities, subject to varying degrees of default risk." (Rose, 2003:206).

Default risk is one kind of investment risk, which is created from non payment of interest and principal by the security issuer at the fixed future date. A bank management should have awareness about such risk. Approving authority should make sures that the loan will be repaid together with interest, for this loan approval process should conduct in better way.

# 2.2.1.4 M. Radhaswami and S. Vesudevan's Study

"The mechanism of credit creation is used to expand the business. Fluctuation of credit facilities gratitude by banks has an important bearing, on the level of economic activity. Explains of bank credit is followed by increase in production, employment ,sales and prices .In a developing economy the banks offer more and more credit and increase the resources of the industries, thereby causing faster economic development. Banks plays a decision role in the individual development of the country. The credit facilities extended by banks must be uniform and rational. Otherwise there will be haphazard development off country. The flow of credit should flow steadily and evenly through various sectors of the economy just as cutting of blood vessel would lead to fatal results."(Radhaswami & Vesudeyan,1979:133)

Banking companies are such type of institution which deals with credit and credit instruments. Good circulation of credit is very much important for those institutions. Unsteady and unevenly flow of credit negatively affects the economy. Thus, to collect fund and utilize it in a good investment cannot be a lighter part of fund may be the question of life and death of a banker.

# 2.2.2 Review from Nepalese Context

In Nepalese context, here are some independent studies which related to the present study .study materials related to this topic are presented in the following ways:

a. Review of relevant studies from report and articles

b. Review from unpublished thesis

In the first section, effort has been made to examine and review of some relates articles and reports published in different journals, magazines, newspaper and books while in second section, and unpublished thesis works conducted by various students have been received.

# 2.2.3 Review from Reports and Articles

Shekhar Bahadur Pradhan in his article (2053) "*Deposits mobilization its problem and prospects*" *has expressed that*" deposit is the life blood of any financial institution i.e. commercial banks, financial companies and co-operative or non government organization." In consideration of ten commercial banks, nearly three dozens of finance companies, the latest figure produce a strong feeling that a serious review must be made on problems and prospects of deposit sector .Beside few joint venture banks, other organizations rely heavily on the business deposits receiving and credit disbursement.

In the light of this, Pradhan has pointed out following problems of deposits mobilization in Nepalese perspective.

1. Due to lack of education, most of Nepalese people do not go for saving in institutional manner, however they are very much se saving as from cash and ornament. Their reluctance to deal with institutions system are governed by their lower level of

understanding about financial organization, process requirement, office hour withdrawals system, availability of depositing facilities and so on.

- 2. Due to the lesser office hour of banking system people prefer for holding the cash in the personal possession.
- 3. Unavailability of the institutional services in the rural area.
- 4. No more mobilization and improvement of the employment of deposits in the loan sectors.

Pradhan has not only pointed out the problems but also suggested for the prosperity of deposit mobilization. They are given as:

- ) By adding service hours system will definitely be sand appropriate step.
- ) If deposit mobilizations materialize by providing sufficient institutions service in rural area, the generated fund can be used somewhere else by the bank which can be taken as major achievement. NRB could be endorsing this deposit collection by continuing to subsidize overhead cost for little longer period .A full scale of field office system could be taken back and made manpower strength deputed to cut down overhead cost.
- NRB also organize training program to develop skilled manpower.
- ) By spreading co-operative to the rural areas, mini banking services are to be launched.
- ) Last Pradhan mentioned, deposit mobilization carried out effectively is in the interest of depositors, society, financial sector and the nation. Lower level of deposit rising allows squeezed level of loan delivery leaving more room to informal sectors. That is why higher priority to deposit mobilization has all the relevance..

In an article, "*Why does loan become defaulter*"? by Mahesh Bhattarai (1998) is trying to indicate the problems of bank bad debt and non performing assets. According to him, "If a bank cannot recover its loan lending, banks cash flow will be badly affected". Similarly it can affect the close relationship between depositors.

"Why does loan become defaulter"? This study finds out the causes that makes loan default. "When the due date is over the loans become default. But why do the due dates be over?

Generally increase in interest rates; decreases in economic activities cause decrease in the capacity of debtor and sometimes the debtor knowingly do not pay back the loan. Other than these reasons in the context of Nepal lack of credit policy, lack of information about the loan holder (three c's: capacity, character, and capital), unhealthy competition and small market area, causes loan defaults. Default loan increases the resources mobilization cost and reduces the profit earning capacity of a bank. Therefore increases in default loans are the indicator of problematic situations to the bank. (Neupane, 2000:142).

In an article, "*challenges of non-performing loan management in Nepal*", by Uma Karki (2002) has mentioned the causes of increasing trend of non-performing loan. She identifies the major causes such as poor loan analysis, guarantee oriented loan system, depreciation of valued assets, misuse of loan, lack of regular supervision of loan.

Default risk is one kind of investment risk of non payment of loan at the fixed future date. In Nepalese context, when interest rate is increased it causes the decreases in economic activities as well as capacity of borrower. Sometimes debtors knowingly do not pay back the loan, and invest the loan in unproductive sector. Such kind of activities occurs continuously, if there is lack of sound credit policy, improper credit analysis, lack of information about loan holders and lack of regular supervision. So banks should formulate and implement sound credit policy. Loan approval and disbursement process should be conducted in better way. Proper credit analysis and regular supervision can control the credit risk.

Another article entitled "*lending operation of commercial banks of Nepal and its impact on GDP*." Dr. Sunity Shrestha (2052) has found all the dependent variables (i.e. agriculture, industrial, commercial, general and social sectors) except service sector; she found correlation between GDP and lending of commercial banks in various sector of economy except through service sector investment.

"The bank gives loan to various sectors. This is necessary for long term survival of the bank. Even if any sector is doing very well, the bank does not put its total money in that sector. If the bank concentrates its lending only in one sector, failure of the sector may cause bankruptcy of the bank." (Dhahal & Dhahal,2002:116).

Loan mix is components of established credit policy. It is a kind of strategy in credit management for banks to be success. In context of Nepal, here are different sectors in economy such as priority sector, deprived sector, productive sector, government sector etc. So, there should be diversification in investment of every commercial bank. Making investment or lending to various sectors is necessary for the long term survival of banks.

# 2.2.4 Review of Previous Thesis

Joshi, (2006), entitled with "A Study of Non Performing Loan & Loan Loss Provision of Commercial Bank, A Case Study of NABIL, SCB and NBL" has made study about a part of credit risk associated with those banks. The main objectives of her study were:

- ) To find out the proportion of non-performing loan in the selected commercial banks.
- ) To find out the factors leading to accumulation of non performing loan in commercial banks
- ) To study and analyze the guidelines and provisions pertaining to loan classification and loan loss provisioning.
- ) To find out the relationship between loan and loan loss provision in the selected commercial bank.
- ) To study and the impact of loan loss provision on the profitability of the commercial banks.

The major finding in her study was that the NBL has the highest portion of the loan in total asset followed by NABIL and SCBNL. She concludes that the SCBL shows the risk-averse attitude. Likewise the non-performing loan to total loan is found highest in NBL, NABIL and SCBNL. Likewise the Loan Loss Provision is also highest in NBL where as the SCBL has the least Loan Loss Provision.

Likewise, the NBL has the highest portion of Loss loan followed by NABIL and SCBL. This study is more concentrated on non-performing loans; however, there exist lots of areas in credit risk management where further research is called for. In context of credit risk, collateral risk, concentration risk, organization risk management system can be studied.

Shrestha, (2007), entitled "Loan Management of Joint Venture Banks". with following objective in his study.

) To analyze the effectiveness of lending policy of the selected sample banks.

) To measure the performance in quality, efficiency

To meet the above objective, the sources of data of commercial bank are analyzed by using financial tools such as ratio analysis, frequency, mean, standard deviation are used. Among many joint venture banks the researcher took two banks EBL and NBBL with five years data.

In findings, the current ratios of these banks are considerable and considerable but mean liquid fund to total deposit ratios are fewer consistencies and are not above 1 which shows the minimum deposit mobilization. Likewise, assets to total liabilities ratios are also fluctuating.

Similarly, loan and advances to total deposit ratio, mean ratio of loan and advance and investment to total deposit ratio shows the deposit mobilization in income generating sector are being nearly equal to 1. Loan and advances to shareholders equity ratio shows how well the investment made by investor. These ratios of both banks are above 10 and are fewer consistencies.

In conclusion, the overall performance of Nepal Bangladesh Bank Limited is satisfactory then Everest Bank Limited. The liquidity position of NBBL is better than that of EBL. As loans and advances of NBBL is increasing trend deposit is also increasing trend during the study period. There is increasing trend in profit of NBBL shows that improvement in performance and success of the firm. Purpose wise loan classification show that the NBBL and EBL banks have given priority to industrial and commercial sector lending, as well as priority and deprived sector lending. NBBL has higher lending portion in these sectors than EBL. From the selected bank NBBL has performed well in increasing growth ratio of deposit, loans and advances, investment and profit.

NBBL has good lending procedure, preliminary screening is done of all the loan application, credit appraisal and financial position of the business and cash flows of the proposal is given high importance, which is essential criterion for loan approval. There is proper control mechanism like delegation of authority, follow up visits and books of accounts inspection of the client, which results in good performance of the bank. The banks follow NRB guidelines of loans classification and provisioning which makes strong financial position of the bank instead of holding high volume of non-performing assets. After comparatively study of NBL and EBL banking performance, it can be concluded that NBL has better performance than that of EBL.

Pradhan, (2008), entitled with "Lending policy of Joint Venture Banks". The main objective of his study is to analyze the fund mobilizing policy adopted by NABIL and Himalayan Bank Limited. The specific objectives of the study are as follows:

- ) To measure the relationship of total deposits with total investment, loan and advances and net profit.
- ) To evaluate the comparative growth ratio on total investment, loans and advances, total deposits and net profit of HBL and NABIL Bank Limited.
- ) To evaluate financial and investment efficiency, profitability and liquidity position of HBL and NABIL Bank Limited.
- ) To analyze the sources and uses of funds of HBL and NABIL Bank Limited.

To achieve the objectives of the study, descriptive an analytical research design has been used for secondary data. Some statistical and financial tools have also been applied to examine facts and descriptive techniques have been adopted to evaluate funds mobilizing performance of HBL and compare to NABIL Bank Limited.

In findings, the mean ratio of cash and bank balance to total deposits and investment on government securities of HBL is more consistent and that of NABIL. The average study of cash and bank balance to current assets ratio, investment on government securities, the mean ratio of loan and advances to total deposits, the mean ratio of investment on government securities to total working fund, return on loan and advances and return on working funds HBL is more consistent than that of NABIL. The mean ratio of total interest paid to total working fund, liquid funds, correlation coefficient between deposit and total investment, between deposit and loan and advances, growth rate of loan and advances and liquidity risk ratio of HBL is higher than NABIL. But the capital fund, yearly growth rate of net profit of NABIL is better in comparison to HBL. There is significant difference between mean ratios of loan and advances to total deposits and total investment ratio of HBL and NABIL are in increasing trend. There is significant difference between mean ratios of loan and advances to total deposits and total investment to total deposit of HBL and NABIL.

From the above analysis, it can be concluded that the liquidity position of NABIL was not satisfactory whereas HBL is comparatively better than that of NABIL. NABIL has made enough investment in government securities than HBL but weak position in mobilizing the collected deposits as loan and advances and NABIL.

NABIL seems stronger in earning interest from working fund than HBL and it has also been successful to collect its working fund from less expensive sources. Growth rate of NABIL on loan and advances and total investment are too weak in comparison to HBL. HBL borrowing is an indication that the internal fund management than NABIL. Deposits and total investment, deposits and loan and advances of HBL and NABIL indicate high degree of positive correlation. In most of the cases it has been found that loan and advances and investment decision depends upon other variables. So the calculation of probable error also supports significant relationship. By considering the trend values also, HBL seems to be more successful than NABIL to utilize its total collected deposits in investment, deposit utilization trend in relation to loan and advances. In case of testing of hypothesis it can be concluded that there is significant difference between mean ratio of loan and advances to total deposits of HBL and NABIL and there is no difference between mean ratios of total investment to their total deposits.

Giri, (2009), entitled with "A study on the credit risk management of Nepalese Commercial Banks" aims following objective taking Kumari Bank and Machhapuchre Bank.

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

From the analyses of credit risks, following major findings have been obtained:

- 1. From the analysis of primary data, it is found that the majority of the respondents of both banks have favored with the bank's single sector, which is up to 10 % of total loan. However, the sector wise lending analysis portrays that KBL and MBL have extended up to 19.88 % and 30.12% of loan in a single sector respectively in FY 2007/08. Similarly, the exposure on the single sector of KBL and MBL exceeds 10 % of total loan in 3 and 5 sectors respectively. The single sector loan to core capital shows that the ratio crossed 100% in 2 sectors of both KBL and MBL. In regard to concentration risk, KBL has more risk in manufacturing and others sector where as MBL has more risk on manufacturing and Whole seller and sectors as the single sector credit to core capital ratio in these sectors is more than 100 %. MBL has very high loan concentration on manufacturing sector of 199.35% of the core capital. From the personal interview of the key respondents it was found that both banks have been extending credit in those highly concentrated sectors after getting approval from the board of director. This clarifies that concentration risk is the main source of credit risk for KBL and MBL.
- 2. Similarly, lack of systematic and thorough credit processing is also the major source of credit risk in these banks. The problems in credit processing include lack of thorough credit assessment, absence of testing and validation of new lending

techniques, subjective decision-making by senior management, lack of effective credit review process, failure to monitor borrowers or collateral values, and failure of banks to take sufficient account of business cycle effects etc. Likewise the market-sensitive and Liquidity-sensitive exposures also increase the credit risk of these banks. Similarly, it is found that both banks have their own rating system of the credit client and the sectors. Both banks have ranked 1<sup>st</sup> to the manufacturing sector where as the Agriculture sector has been ranked the last on the basis of priority. KBL has chosen others sector and real estate business in 2<sup>nd</sup> and 3<sup>rd</sup> position respectively, where as the MBL has just opposite preference in these sectors.

- 3. Likewise, KBL has ranked Character, Collateral and Capacity of borrower first, second and third criterion for granting credit where as MBL ranked Character, Capacity and Capital first, second and third priority respectively. The hypothesis test on the preference of the bank's staff also proves that there is no significant difference between observed and expected frequency of ranking.
- 4. Lending analysis against various collaterals: it has been found that both the banks have lent highest amount of loan against the movable/ immovable property. The average lending over 5 years period of KBL and MBL against movable/ immovable property is Rs. 2,987 million and 2,673 million respectively. Similarly, the lending against others securities (i.e. other than prescribed by NRB) is second position for both banks, whereas the lending against guarantee of local banks and finance companies is in third position. However, MBL has also granted loan without any collateral. The average amount of loan without collateral is Rs. 3 million annually, which is in the 6<sup>th</sup> place on ranking. On the contrary, KBL has not granted any loan without backing any collateral.

Karki, (2010), entitled with "Lending Practices: A Study on NABIL Bank Ltd., SCBL Nepal Ltd. and Himalayan Bank ltd." with the objectives of:

- To determine the liquidity position, the impact of deposit in liquidity and its effect on; lending practices.
- To measure the bank's lending strength.
- To analyze the portfolio behavior of lending and measuring the ration and volume of loans and advances made in agriculture, priority and productive sector.
- To measure the lending performances in quality, efficiency and its contribution in total income.

The study was conducted on the basis of secondary data.

The findings of the study are:

• The measurement of liquidity has revealed that the mean current ratio of all the three banks is not widely varied. All of them are capable in discharging their current liability by current assets.

- The measurement of lending strength in relative terms has revealed that the total liability to total assets of SCBNL has the highest ratio. The high ratio is the result of high volume of shareholder equity in the liability mix. Himalayan Bank Ltd. has high volume of saving and fixed deposits as compared to current deposit resulting intro low ratio of non-interest bearing deposits to total deposits ratio compared to the combined mean.
- The loan advances, and investment to deposit ratio has shown that NABIL Bank Ltd. has developed the highest proportion of its total deposits in earning activities. This is the indicative of that in fund mobilizing activities NABIL Bank Ltd. is significantly better.
- The lending in commercial purpose is highest in case of NABIL Bank Ltd. and leastin case of SCBNL has highest contribution in service sector lending. It has contributed 25.47% of its total credit in general use and social purpose.
- The ratio of investment to investment and loan and advances has measured the total portion of investment in total of investment and loans and advances. The ratio among the banks does not have deviated significantly.

# Dahal, (2011), entitled with "A Study on Credit Practices of Joint Venture Commercial Banks with reference to Nepal SBI Bank Ltd. and Nepal Bangladesh Bank Ltd." The basic objectives of this thesis are:

- ) To determine impact of deposit in liquidity and its effect on lending practices.
- ) To know the volume of contribution made by both bank in lending.
- ) To examine lending efficiency and its contribution in profit.
- ) To analyze trend of deposit utilization towards loan and advances and net profit and their projection for next five years.

The major findings of this study are:

- 1. In terms of liquidity ratio, current ratio of NSBL is higher than that of NBBL. The ratio of liquid fund to current liability of NSBL is higher than NBBL. This shows that NBBL has less consistency than NSBL. The ratio of cash and bank balance to deposit of NSBL is higher than that of NBBL. Cash and bank balance to interest-sensitive deposit measures the liquidity risk arising from fluctuation of interest rate in the market. The ratio of cash and bank balance to interest sensitive deposit of NSBL. NSBL has poor position due to high volume of interest sensitive liability in deposit mix.
- 2. The ratio of loans and advances to total assets of NBBL is higher than NSBL. Likewise mean ratio of loans and advances to total deposit of NBBL is higher than NSBL. The mean ratio of investment to loans and advances and investment of NSBL is higher than that of NBBL. Likewise the ratio of total investment to total deposit of NSBL is higher than that of NBBL.

- 3. The ratio of credit to government enterprises to total credit of NBBL is higher than that of NSBL. The mean ratio of credit tot bills paid and discount to total credit ratio o NBBL is higher than that of NSBL. NSBL has contributed 95.91% in private sector loan, 2.51% in government sector loan and 1.56% in bills paid and discounts. Likewise NBBL has contributed 90.83% in private sector loan, 4.29% in government sector loan and 4.84% in bills paid and discounts.
- 4. Among the various measurement of profitability ratio return on equity (ROE) and earning per share (EPS) reflects the relative measure of profitability. The performance of NBBL is better than NSBL. Return 0on equity and earning per share of NBBL are higher than that of NSBL in all years.
- 5. Co-efficient of correlation between deposit and loans & advances of both banks have positive value. Also co-efficient of correlation between total income and loans & advances of both bank have positive relation. Coefficient of correlation between net profit and loans & advances of NSBL is negative as other variables like increase in interest suspense and loan loss provision affects net profit. Coefficient of correlation between net profit and loans & advances of NBBL is positive.
- 6. Trend analysis of total deposit of NSBL and NBBL are found in increasing trend. The increment ratio on deposit of NSBL is lower in comparison to NBBL.

# 2.3 Research Gap

Previous researchers analyzed the credit management by using secondary source of information in terms of credit practices or lending practices. But actually speaking, credit management can be determined by various factors. Among of them, banking environment and management quality in terms of credit may be the strong determinant for credit management in banks. In present context, these are the heart issue in Nepalese commercial banks. The previous scholars could not submit the present facts. Present study tries to define credit management by applying those various facts. It can be very useful or important in this area. Thus, present study may be valuable piece of research work.
# CHAPTER-THREE RESEARCH METHODOLOGY

# 3.1 Introduction

Research methodology is the process of arriving to the solution of the problem through planned and systematic dealing with collection, analysis and interpretation of facts and figure. It is a way to systematically solve the research problem. It may be misunderstood as a science of studying how research is done scientifically. In this we study the various steps that are generally adopted by a researcher in studying the research problem along with the logic behind them. It is inquiry into any subject matter, which is an endeavor to discover for find out valuable fact, which would be useful for future application or utilization. (Micheal, 2002). A systematic research study needs to be followed to achieve predetermined objectives.

# 3.2 Research Design

Research design is the arrangement of the condition for the collections and analysis of data in a manner that aims to combine relevance to the research purpose. It can be defined as the plan, structure and strategy of investigation concerns so as to answer the research questions and to control variants. It is the overall operational pattern of framework of the project that stipulates what information to be collected sources by what procedures. Thus, it is not possible for the researcher to conduct a research work without a research design.

In this study, descriptive as well as analytical research approach is followed to analyze the present structure, constraints and future potentiality of the Bank of Kathmandu, Nepal Credit and Commerce Bank and Laxmi Bank. Besides, the research also includes various financial, statistical and qualitative aspects and these aspects are described details where it is necessary.

# **3.3** Population and Sample

When it is impossible or very difficult to study the whole population, a part of the population is selecting is selected in order to draw conclusion of the whole population, this process is sampling and the part selected is called sample. Here, regarding to this study, the whole of commercial banks are the population of the study. And the selected one commercial banks viz. Bank of Kathmandu, Nepal Credit and Commerce Bank and Laxmi Bank. are the samples for the study.

# **3.4** Nature and Sources of Data

This study is mainly based on secondary data. These data are collected from published sources like, annual reports, balance sheet, prospectus, newspaper, journal, web sites and other sources. Besides this in some case, as per research need. The secondary data published on annual reports of concerning organizations. The secondary data are extracted

from published annual reports of the bank, published articles, journals, reports, previous related studies etc.

### **3.5** Data Collection and Processing Techniques

Even this study is based on secondary data, adequate effort and time is given to get these essential materials, Annual reports of concerned banks, annual report of SEBO are obtained from respective offices. To some extent opinion survey or informal interview and questionnaire are conducted to obtain more information prove the reliability of the different published data. Various published data cannot be used in their original form due to poor data base. Thus for analysis purpose further these data need to be verified and simplified. Available data, information and figures are rechecked and tabulated in the analytical manner with supporting interpretations.

# **3.6** Methods of Data Analysis

Presentation and Analysis of the collected data is the core part of research work. The collected raw data are first presented in systematic manner in tabular form and are then analyzed by applying different financial and statistical tools to achieve the research objectives. Besides some charts and tables have been presented to analyze and interpret the findings of the study.

#### **3.6.1 Financial Tools**

Various financial tools and statistical tools used are as follows:

Financial tools basically help to analyze the financial strength and weakness of a firm. Ratio analysis is a part of the whole process of analysis of financial statements of any business or industrial concerned especially to take output and credit decisions. Ratio analysis is used to compare firm's financial performances and status that of the other firm's or to it overtime. Even though there are many ratios to analyze and interpret the financial statement those ratios that are related to the investment operation of the bank have been covered in this study.

#### **3.6.1.1 Liquidity Ratios**

This ratio measure the liquidity position of a firm .It measures the firm's ability to meet its short term obligations or its current liabilities. It measures the speed with which a bank's assets can be converted into cash to meet deposit with drawl and other current obligations.

One of the most important functions of commercial bank must maintain its satisfactory liquidity position to meet the credit need of the community. Demand for deposits, with drawl, pay maturity in time and convert non cash assets into cash to satisfy immediate need without loss to bank and consequent Impact or long run profit. As a financial analytical

tool, the following liquidity ratios have been used to come into facts and findings of the study.

#### a. Current ratio

Current ratio indicates the ability of banks to meet its current obligation. It measures liquidity position of financial institutions. It is calculated dividing current assets by current liabilities. It measures short term solvency, so it is often called solvency ratio and working capital ratio. It is calculated by applying this formula,

Current ratio  $X \frac{\text{Current assets}}{\text{Current liabilities}}$ 

Current assets normally comprised with cash and bank balance, investment, money at call, bills for collection, loan and advances, customers acceptance and discount, purchased bills, other receivable and prepaid expenses.

Similarly, the current liabilities include those obligations which mature within one year from the data of their financial statement. They are current payment, cash margin, and current saving deposit; inter bank reconciliation account, bills payable, provision for overdrafts, accrued expenses and bills for collection and customer's acceptance outstanding expenses etc.

#### b. Liquid fund to total deposit ratio

Liquid fund to total deposit ratio indicates the banks strength to meet uncertain outflow or deposits. It occurs by dividing liquid fund. Liquid fund are those assets, which can be converted into cash in a short period without any decline in their value.

Liquid fund to C. L ratio  $X \frac{\text{Liquid fund}}{\text{Current liability}}$ 

Liquid fund consists of cash in hand, balance with NRB, balance with other banks and money at call.

#### c. Cash and bank balance to total deposit ratio

Deposit is one of the major liabilities of commercial banks. Bank has to manage its liquidity to meet depositors demand. This ratio measures the availability of bank's highly liquid or immediate funds to meet its unanticipated calls on all types of deposits.

Cash and bank balance to total deposit ratio  $X \frac{\text{Cash and bank balance}}{\text{Total deposit}}$ 

Total deposit includes current deposit, savings deposit, fixed deposit, call and short deposit and other type of deposits. Cash and bank balance consists of cash in hand, cheques and other cash items, balance with domestic banks, foreign cash on hand.

#### d. Cash and bank balance to interest sensitive deposit ratio

Saving deposit is deposited by public in a bank with an objective of increasing their wealth. Interest rate plays important role in the follow of interest sensitive deposit. Fixed and current deposits are not interest sensitive. Fixed deposit has a fixed term to maturity and current deposits do not carry an So fixed and current deposits are not sensitive toward interest rate. The ratio of cash and bank balance to interest sensitive deposits measures the bank ability to meet its sudden outflow of interest sensitive deposits due to the change in interest rate.

Cash and bank balance to interest sensitive deposit ratio  $X \frac{\text{Cash and bank balance}}{\text{Saving deposit}}$ 

#### e. Cash and bank balance to current asset ratio

Cash and bank balance are the most liquid current assets. This ratio measures the percentage of most liquid fund with the current assets. Higher ratio indicates the bank's sound ability to meet the daily cash requirement of their customer's deposit. Low ratio is also dangerous. If bank maintain low ratio, bank may not able to make the payment against cheques. So bank has to maintain cash and bank balance to current assets ratio properly. This ratio is calculating dividing cash and bank balance by current assets.

Cash and bank balance to current assets ratio  $X \frac{\text{cash and bank balance}}{\text{current assets}}$ 

#### f. Loan and advances to current assets ratio

Loan and advances is the major component in total assets, which indicates the banks ability to canalize its deposit in the form of loan and advances to earn high return. If sufficient loan and advances cannot granted it should be pay interest on those utilized deposit funds and may lose earning. So commercial banks provide loan and advances in appropriate level to find out portion of current assets, which is granted as loan and advances. This ratio is calculated by dividing loan and advances to current assets. Loan and advances includes short term loan and advances, overdraft, cash credit, local and foreign bills purchased and discounted.

Loan and advances to current assets ratio  $X \frac{\text{Loan and advances}}{\text{Current assets}}$ 

#### 3.7.1.2 Assets Management Ratio

Assets management ratio measures the proportion of various assets and liabilities in balance sheet. The proper management of assets and liability ensures its effective utilization. Commercial banks should manage its assets and liabilities properly to earn profit. The banking business converts the liability into assets by way of its lending and investing functions. Asset and liability management ratio measures its efficiency by multiplying various liabilities and performing assets. The following are the various ratios relating to asset and liability management, which are used to determine the efficiency of the bank concerned in managing it s assets and efficiency in portfolio management.

#### a. Total assets to total liability ratio

Total assets to total liability ratio measures the volume of total assets of the bank. The total assets of the bank should play active role in profit generating through lending activities. This ratio measures the banks ability to multiply its liability into assets. Higher ratio signifies overall increases of credit. Higher ratio indicates the higher productivity. It is calculated by dividing total assets by total liabilities.

Total assets to total liability ratio  $X \frac{\text{Total assets}}{\text{Total liability}}$ 

#### b. Loan and advances to total assets ratio

Loan and advances is an important part of total assets (total working fund). Total working fund play important role in profit earning through fund mobilization. So bank should carefully mobilize the total assets. The ratio of loan and advances to total assets measures the volume of loan and advances in the structure of total assets. A high ratio indicates better in mobilization of funds as loan and advances and vice versa.

 $Loan and advances to total assets X \frac{Loan and advances}{Total assets}$ 

#### c. Total investment to total deposit ratio

A commercial bank may mobilize its deposit by investing its fund in different securities issued government and other financial and non- financial companies. Effort has been made to measure the extent to which the banks are successful in mobilizing the total deposit on investment. A high ratio is the indicator of high success to mobilize the banking fund as investment and vice-versa.

Total investment to total deposit ratio  $X \frac{\text{Total investment}}{\text{Total deposit}}$ 

#### d. Loan and advances to total deposit ratio

This ratio is calculated to find out successfully the banks are utilizing their deposits on loan and advances for profit generating activities. Greater ratio indicates the better utilization of total deposits.

 $Loan and advances to total deposit ratio X \frac{Loan and advances}{Total deposit}$ 

#### e. Investment to total and advances and investment ratio

This ratio measures the contribution made by investment in total amount of loan and advances and investment. The proportion between investment and loan and investment measures the management attitude towards risk assets and safety assets. Investment and loan and advances in whole do not provide the quality of assets that a bank has created. The ratio indicates the mobilization of funds in safe area and vice-versa.

Investment to loan and advances and investment ratio X Investment Loan and advances and investment

#### 3.6.1.3 Activity Ratio

Activity ratio measures the performance efficiency of an organization from various angles of its operations. These ratios indicate the efficiency of activity of an enterprise to utilize available funds, particularly short term funds. These ratios are used to determine the efficiency, quality and the contribution of loan and advances in the total profitability. The efficiency of a firm depends to a large extent on the efficiency with which its assets are managed and utilized. This ratio also shows the utilization of available fund. The following activity ratios measures the performance efficiency of the bank to utilize funds

#### a. Loan loss provision to total loans and advances ratio

NRB has directed the commercial banks to classify its loan and advances into the category of pass, substandard, doubtful, and loss. NRB has classified the pass and substandard loan as performing loan and other two types of loan as non-performing loans. The provision created against the pass and substandard loan is called the general loan loss provision and provision created against the doubtful and loss loan is called specific loan loss provision. The provision for loan loss reflects the increasing probability of non-performing loan. The provision of loan mean the net profit of the banks will come down by such amount. Increase in loan loss provision decreases in profit result to decreases in dividends but it's positive impact is that strengthens the financial conditions of the banks by controlling the credit risk and reduced the risks related to deposits.

Loan loss provision to total loan and advances ratio is calculated by dividing loan loss provision by total loan and advances. The low ratio indicates the good quality of assets in total volume of loan and advances.

High ratio indicates more risky assets in total volume of loan and advances.

Loan loss provision to total loan and advances  $X \frac{\text{Loan loss provision}}{\text{Total loan and advances}}$ 

#### b. Non performing loan to total loan and advances ratio

Non performing loans to total loan and advances ratio shows the percentage of non-recovery loans in total loan and advances. This ratio is calculated dividing non-performing loan by total loan and advances.

Non - performing loan to total loan and advances  $X \frac{\text{Non - performing loan}}{\text{Total loan and advances}}$ 

#### c. Interest expenses to total deposit ratio

This ratio measures the percentage of total interest paid against total deposit. A high ratio indicates higher interest expenses on total deposit. Commercial banks are dependent upon its ability to generate cheaper fund. The cheaper fund has more probability of generating loan and advances and vice-versa.

Interest expenses to total expenses ratio  $X \frac{\text{Interest expenses}}{\text{Total deposit}}$ 

#### d. Interest expenses to total expenses ratio

This ratio measures the percentage of interest paid against total expenses. The high ratio indicates the low operational expenses and vice-versa. The ratio indicates the costly sources of funds.

Interest expenses to total expenses ratio  $X \frac{\text{Interest expenses}}{\text{Total expenses}}$ 

# e. Interest expenses to total working fund ratio

This ratio measures the percentage of total interest paid against the total working fund. A high ratio indicates the higher interest expenses on total working fund and vice versa.

Interest expenses to total working fund ratio  $X \frac{\text{Interest expenses}}{\text{Total working fund}}$ 

### f. Deposit mobilization per branch

This ratio shows the average mobilization of deposit. This ratio is calculated dividing total deposit by no. of branches. Higher ratio shows the higher collection of deposit per branch.

Deposit mobilization per branch  $X \frac{\text{Total deposit}}{\text{No. of branch}}$ 

### f. Credit mobilization per branch

This ratio measures the average mobilization of credit. This ratio is calculated by dividing total loan and advances by no. of branches. Higher ratio indicates the higher lending per branch.

Credit mobilization per branch  $X \frac{\text{Total loan and advances}}{\text{No. of branches}}$ 

### 3.7.1.4 Loan and advances portfolio

To analyze the portfolio behavior of loans and advances of the bank for the study period, trend of loans and advances granted to various sectors of the economy fore various purposes have been measured.

#### a. Priority sector credit to total credit ratio

Priority sector includes micro and small enterprises. Micro and small enterprises are classified as agriculture enterprises, cottage, small industries and services. This ratio is calculated by dividing priority sector credit by total credit.

#### b. Deprived sector credit to total credit ratio

Deprived sector credit includes low income and particularly socially backward women, tribes, lower caste, blind, hearing impaired and physically persons and squatter family. Deprived sector credit to total credit ratio can be calculated by dividing deprived sector credit by total credit.

#### c. Private sector credit to total credit ratio

Private sector credit to total credit ratio can be calculated by dividing private sector credit to total credit. Higher credit ratio to private sector indicates higher profit and higher risk.

#### d. Credit to government enterprises

Credit to government enterprises is another option that the commercial banks have to mobilize their funds.

#### 3.6.1.5 Profitability Ratio

This ratio is related to profit of business. Profit is essential for survival of the banks, so it is regarded as the engine that drives the banking business and indicates economic progress. Profitability ratio is used to indicate and measure the overall efficiency of a firm in terms of profit and financial performance. It is calculate to measure the management ability regarding how they will have utilized their funds. For better performance profitability ratio should be higher, so following are the various types of ratios which shows the contribution of loan and advances in profit and help to decide investor whether to invest in particular firm or not:

#### a. Interest income to total income ratio

This ratio measures the volume of interest income in total income. The high ratio indicates the banks performance on other fee-based activities. The high ratio indicates the high contribution made by lending and investing activities.

Interest income to total income ratio  $X \frac{\text{Interest income}}{\text{Total income}}$ 

#### b. Interest income to interest expenses ratio

This ratio measures the gap between interest rate offered and interest rate charged. NRB has restricted the gap between interest taken in loan, advances and interest offered in deposits. The credit creation power of commercial banks has high impact on this ratio.

Interest income to interest expenses ratio  $X \frac{\text{Interest income}}{\text{Interest expenses}}$ 

#### c. Operating profit to loan and advances ratio

Operating profit to loan and advances ratio measures the earning capacity of commercial banks. This ratio is calculated dividing operating profit by loan and advances.

Operating profit to loan and advances ratio  $X \frac{\text{Operating profit}}{\text{Loan and advances}}$ 

#### d. Return on loan and advances ratio

This ratio measures the earning capacity of commercial banks through its fund mobilization as loan and advances. Higher ratio indicates greater success to mobilize fund as loan and advances and vice-versa. Mostly loan and advances includes loan cash credit, overdraft, bill purchased and discounted.

Return on loan and advances  $X \frac{\text{Net profit}}{\text{Loan and advances}}$ 

### e. Return on total working fund ratio

This ratio is measuring a profitability indicator with respect to each financial recourses investment of bank's assets. If the bank's total working fund is well managed and effectively utilized, the return on such assets will be higher and vice-versa.

Return on total working fund  $X \frac{\text{Net profit}}{\text{Total working fund}}$ 

# f. Total interest earned to total working fund ratio

This ratio shows the banks successes in mobilizing their assets to generate high income. A high ratio is an indicator of high earning power of the bank on its total working fund and vice-versa.

Interest earned to total working fund ratio  $X \frac{\text{Total interest earned}}{\text{Total working fund}}$ 

### i. Return on equity ratio

Equity capital is an owned capital of any bank. If bank can mobilize its equity capital properly, they can earn high profit. The return on equity capital measures the extent to which a bank is successful to mobilize its equity.

Return on equity  $X \frac{\text{Net profit}}{\text{Total capital}}$ 

# 3.6.1.5 Growth Ratio

Growth ratios represent how the commercial banks maintain the economic and financial position. Under this topic, three types of growth ratios are studied which are as follows:

- a. Growth ratio of total deposit
- b. Growth ratio of total loan and advances
- c. Growth ratio of net profit

Growth ratios are directly related to the fund mobilization and investment management of commercial bank. These ratios can be calculated by dividing the last period figure by the first period figure than by referring to the compound interest table. The high ratio indicates better performance of a bank and vice-versa.

#### **3.6.2 Statistical Tools**

Some important statistical tools are used to achieve the objective of the study. Following tools of measuring the degree of dispersion will be used in the analysis:

#### **1.** Arithmetic mean

Arithmetic mean of a given set of observation is their sum of divided by the number of observation. In general  $x_1, x_2, \ldots, x_n$  are the given number of observation, their arithmetic mean can be derived in this way;

$$X X \frac{X_1 \Gamma X_2 \Gamma X_3 \Gamma \dots \Gamma X_n}{N}$$

Where, X= Variables ΣX=Arithmetic mean N=Number of observation

The arithmetic mean is a single value of selection which represents them in average. Out of the various central tendencies a mean is one of the useful tools to find out the average value of given data. Furthermore it is very much useful with respect of financial analysis and it is also easy to calculate.

#### 2. Karl person's coefficient of correlation

Out of several mathematical method of measuring correlation the Karl Pearson popularity known as Pearson's coefficient of correlation widely used in practice to measure the degree of relationship between two variables. Two variables are said to have correlation when the value of one variable is accompanied by the change in the value of the other .So it is measured by following formulae using two variables: (Bhajracharya,2056:250).

$$r X \frac{XY}{\sqrt{X^2 \sqrt{Y^2}}}$$

Where,

r = Coefficient of correlation

 $\Sigma XY$  = Sum of product of deviation in two series

 $X^2$  = Sum of squared deviation in X series

 $Y^2 =$  Sum of squared deviation in Y series

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

#### **3.** Standard deviation

The standard deviation measures the absolute dispersion or variability of distribution: the greater the amount of dispersion or variability the greater the standard deviation, for the greater will be the magnitude of the deviation of the values from their mean. A small standard deviation means a high degree of uniformity o f the observation as well as homogeneity of series; a large standard deviation means just the opposite. Standard deviation is defined as the positive square roots of the mean of square of deviation taken from the asthmatics mean. It is denoted by .

Formulae to calculate the standard deviation are given below:

$$\circ X \sqrt{\frac{X^2}{N}}$$

Where,

$$X = (\bar{X} Z x)$$
$$6 X \sqrt{\frac{Fx^2}{N}}$$

Where,

X=( $\overline{X}$ -x) and F denotes the frequency.

$$+ X \sqrt{\frac{X^2}{N} Z \frac{X}{N}^2}$$

#### 4. Coefficient of variation

Standard deviation if the absolute measure of dispersion. The relative measure of dispersion based on standard deviation as known as the coefficient of standard deviation. The coefficient of dispersion based on S.D. multiplied by 100 is known as coefficient of variation (CV). If x be the arithmetic mean and  $\sigma$  be the S.D. of the distribution, the CV is defined by

$$CV X \frac{\dagger}{X^*} \, \big| \, 100$$

It is the independent of unit. So, two distributions can bitterly be compared with the help of CV for their variability.

#### **5. Probable error(PE)**

Probable error of the correlation coefficient by PE is the measure of testing the reliability of the calculated value of correlation. If r be the calculated value of correlation of a sample of n pair of observations, Then PE is defined by:

$$PE_r X \frac{1 Z r^2}{\sqrt{N}}$$

If correlation ( r ) < PE, it is insignificant , so, perhaps there is no evidence of correlation and,

If correlation ( r ) > PE , it is significant. (Bhajracharya, 2056:257).

# CHAPTER-FOUR PRESENTATION AND ANALYSIS OF DATA

### 4.1 Introduction

This chapter deals with the presentation, analysis and interpretation of relevant data of BOK, NCC and LBL in order to fulfill the objectives of this study. To obtain the best result, the data have been analyzed according to the research methodology as mentioned in third chapter. A report can be worthless if interpretation is faulty, even if valid and reliable data have been collected.

The data after collection has to be processed and analyzed in accordance with the outline laid down for the purpose at the time of developing the research plan. The purpose of this chapter is to introduce to the mechanics of data analysis and interpretation. With the help of this analysis, efforts have been made to highlight credit management of BOK, NCC and LBL as well as other cases of problems of BOK, NCC and LBL can be visualized. The main objective of the study is to examine the existing policies and practices of Credit Management of BOK, NCC and LBL.

# 4.2 Financial Condition of Selected Nepalese Commercial Banks

Financial tools basically help to analyze the financial strength and weakness of a firm. Ratio analysis is a part of the whole process of analysis of financial statement of CBs. Ratio analysis is used to compare firm's financial performances and status that of the other firm's or to it overtime.

# 4.2.1 Assets Management Ratio

Assets management measures the efficiency of the bank to manage its assets in profitable manner. A commercial bank must manage its assets properly to earn profit. The following ratio measured the assets management ratio of sample banks in comparison.

# 4.2.1.1 Total Assets to total liabilities ratio

Total assets to total liabilities ratio measures the volume of totals liabilities in total assets of the bank. This ratio measures the banks ability to multiply its liability into assets. It is always recommended to have higher ratio since it signifies overall increases of credit. The higher ratio indicates the higher productivity.

			(Ks. in million)						
Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V	
Bank									
LBL	1.0338	1.0867	1.0814	1.0801	1.0713	1.070	0.03	2.80	
ВОК	1.0383	1.0433	1.0476	1.0564	1.0499	1.047	0.01	0.95	
NCC	1.0654	1.0628	1.0623	1.0595	1.1233	1.074	0.04	3.72	

# Table No. 4.1Total Assets to Total Liabilities Ratio

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Source: appendix IIIe and IIh

Above table shows the overall trend of total assets to total liabilities ratio of sample banks. The ratio of LBL has increased in 2008/09 and started to decline thereafter. The ratio of BOK has increasing trend in first four years. The ratio of NCC has decreasing trend in first four years .NBBL has fluctuating trend. The highest ratio of LBL, BOK and NCC is 1.0867, 1.0564, 1.1233 and 1.0891 respectively and lowest ratio is 1.0338, 1.0383 and 1.0595 respectively.

In case of mean ratio, NCC has maintained nearly equal ratio. The mean ratio of LBL and BOK is 1.070 and 1.047 respectively. NCC has highest mean ratio, it indicates the bank's ability to multiply its liability into assets and also signifies overall increases of credit.

The coefficient of variation between total assets to total liability ratio of NCC has equal coefficient of variation i.e. 3.72 and ratios of BOK have more consistency as it has lowest coefficient of variation i.e. 0.95.

The total assets of the bank should play active role in profit generating through lending activities. So, from analysis, the performance level of LBL and NCC are satisfactory in comparison of BOK.

# 4.2.1.2 Loan and Advances to Total Assets Ratio

The ratio of loan and advances to total assets measures the volume of loan and advances in the structure of total assets. A high ratio indicates better in mobilization of funds as loan and advances and vice versa.

Table No. 4.2
Loan and Advances to Total Ratio

			(KS. III IIIIIIOII)					
Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
Bank								
LBL	0.5749	0.6123	0.5906	0.6163	0.6395	0.606	0.03	4.95
BOK	0.4623	0.4311	0.4282	0.4826	0.4462	0.450	0.02	4.44
NCC	0.577	0.5976	0.6095	0.6123	0.6464	0.608	0.03	4.93

(Rs. in million)

Source: IIIf and IIIe

Above table shows the ratio of NCC has increasing trend throughout the year. The ratio of LBL and BOK has fluctuating trend. On the basis of mean ratio of loan and advances to total working fund, LBL and NCC have maintained nearly equal ratio and the ratios are 0.606 and 0.608 respectively.

The coefficient of variance LBL and NCC is 4.95 and 4.93 respectively which shows less consistency in comparison to BOK. The coefficient of variance of BOK i.e. 4.44 is more consistent.

#### 4.2.1.3. Total Investment to Total Deposit Ratio

A commercial banks may mobilize its deposit by investing its fund in different securities issued government and other financial and non financial companies .Effort has been made to measure the extent to which the banks are successful in mobilizing the total deposit on investment .A high ratio is the indicator of high success to mobilize the banking fund as investment and vice versa.

# Table No. 4.3Total Investment to Total Deposit Ratio

Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V	
Bank									
LBL	0.0565	0.1075	0.1850	0.2649	0.3016	0.183	0.09	49.18	
BOK	0.2328	0.4918	0.4844	0.4221	0.4711	0.420	0.09	21.42	
NCC	0.1971	0.3032	0.2470	0.3144	0.2099	0.254	0.04	15.74	

(Rs. in million)

Source: Appendix IIId and IIg

The above table shows the ratio of BOK and NCC has fluctuating trend .LBL has increasing trend of ratio. The mean ratio of investment to total deposit of BOK shows their capacity to mobilize on total investment, mean ratios of BOK is 0.420. Above table shows NCC has maintained the mean ratio and the ratios is 0.254. LBL has lowest mean ratio i.e. 0.183 in comparison to other.

Similarly, the coefficient of variation in the ratios of NCC is 15.74, it shows the ratios have more consistency than other. The coefficient of variation of LBL is highest I.e. 49.18, which shows less consistency and BOK has CV of 21.42.

So, from above analysis, we can say that BOK is more successful in utilizing its resources on investment than that of others. They invests larger amount of total deposits in investment.

#### 4.2.1.3 Loan and Advances to Total Deposit Ratio

The ratio measures the extent to which the banks are successful in mobilizing them for the purpose of profit generation. A high ratio represents the greater efficiency to utilize the funds provided by outsiders and vice versa.

### Table No. 4.4 Loan and Advances to Total Deposit Ratio

					(Rs. in	million	l)	
Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
Bank								
LBL	0.6334	0.7715	0.6850	0.7145	0.7655	0.713	0.06	8.41
BOK	0.5142	0.4787	0.4761	0.5430	0.5007	0.502	0.03	5.97
NCC	0.6570	0.7222	0.7331	0.7296	0.7837	0.725	0.04	5.51

Source: Appendix IIIf and IIg

The above table shows that the loan and advances total deposit ratio of BOK has registered a decreasing trend and ratio of NCC has increasing trend till the first three years of study period and fluctuating trend thereafter.

The ratio of LBL has registered a fluctuating trend. In average, BOK has maintained lower mean ratio in comparison n to other three banks and their mean ratios is 0.502. The mean ratios of LBL and NCC are 0.713 and 0.725 respectively. It reflects that these two banks are better than BOK.

Similarly, the coefficient of variation between the ratios of LBL is less consistent as they have higher CV and coefficient of variation BOK and NCC is 5.97 and 5.51 respectively, it means the ratio of these banks is more consistent than LBL.

From above analysis, it can be concluded that BOK has lower position to mobilize its total deposit as loan and advances in comparison and LBL and NCC are also successful to mobilize.

### 4.2.1.4 Investment to Total Loan and Advances and Investment Ratio

This ratio measures the contribution made by investment in total amount of loan and advances and investment. The higher ratio indicates the mobilization of funds in safe area and vice versa.

# Table No. 4.5Investment to Total Loan and Advances and Investment Ratio

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Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
Bank								
LBL	0.0818	0.1222	0.2126	0.2705	0.2826	0.193	0.08	41.45
BOK	0.3117	0.5067	0.5043	0.4373	0.4848	0.448	0.08	17.85
NCC	0.2307	0.2957	0.2520	0.301	0.2112	0.258	0.03	11.62

(Rs. in million)

Source: Appendix IIId and IIIf

The above table shows LBL has increasing trend of ratios during study period. BOK and NCC have fluctuating trend of ratios. The mean ratios of BOK is 0.448 and it shows that two banks have strong position to mobilize its fund in safe areas than other three banks. LBL has lower mean ratio i.e. 0.193 and we can cay that it has not better position in this case in comparison. NCC is also successful to mobilize its fund in comparison to LBL .

The coefficient of variation between the ratios of BOK is 41.45, which are greater in comparison and it shows the ratios have less consistent because of its lower CV. The CV of BOK is 17.85 and we can say that the ratios of there two banks have more consistency than LBL and less consistency than NCC.

### 4.2.2 Activity Ratio

Activity ratio measures the performance efficiency of an organization from various angles of its operation. These ratios indicate the efficiency of activity of an enterprise to utilize available funds, particularly short term funds. These ratios are used to determine the efficiency, quality and the contribution of loan and advances in the total profitability.

### 4.2.2.1 Loan Loss Provision to Total Loan and Advances Ratio

The provision for loan loss reflects the increasing profitability of non performing loan. Increase in loan loss provision decreased the profit result to decreases in dividends but its positive impact is that strengthens the financial condition of the banks by controlling the credit risk and reduced the risks related to deposits.

# Table No. 4.6Loan Loss Provision to Total Loans and Advances Ratio

						(		
Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
Bank								
LBL	0.0579	0.0621	0.0682	0.0701	0.0779	0.067	0.01	14.92
BOK	-	0.0673	0.0771	0.0749	0.0763	0.073	0.011	15.06
NCC	0.0209	0.0236	0.0279	0.0347	0.0356	0.030	0.007	23.33

(Rs. in million)

Source: appendix IIk and IIIf

The above table shows the ratio of LBL and NCC has increasing trend. BOK has fluctuating trend of ratio. From mean point of view, it can be said that BOK has highest mean ratio i.e. 0.073 in comparison. LBL has also high mean ratio than NCC and the mean ratios of these banks are 0.067. The mean ratios of NCC is 0.030.

The coefficient of variation of LBL and BOK shows more consistency because of lower CV and the coefficient of variation between the ratios of these banks are 14.92 and 15.06 respectively. Similarly NCC has CV of 23.33. It shows the ratios of these banks have been seen less consistency than LBL and BOK.

From analysis we can say that increasing trend of ratio of LBL indicates the increased volume of none performing loans and it also indicates poor and ineffective credit it policy. The ratio of BOK shows the decreased volume of non performing loans. But in comparison, highest ratio of LBL and BOK indicates more risky assets in total volume of

loan and advances. Lowest mean ratios of NCC, shows the decreases in loan loss provision which increases profit result.

#### 4.2.2.2 Non performing Loan to Total Loan and Advances Ratio

Non performing loan to total loan and advances ratio shows the percentage of non recovery loans in total loans and advances. Non performing loan can be divided into substandard, doubtful and bad loan.

# Table No. 4.7Non Performing Loan to Total Loan and Advances Ratio

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				( <b>RS.</b> In million)					
Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V	
Bank									
LBL	0.1154	0.0632	0.0890	0.0625	0.0654	0.079	0.020	25.31	
BOK	-	0.0834	0.1007	0.0888	0.0744	0.086	0.015	17.44	
NCC	0.0393	0.0104	0.0220	0.0171	0.0163	0.021	0.009	42.85	

Source: Appendix IIj and IIIf

Above table shows, that the ratio of LBL and BOK have higher mean ratio i.e. 0.079 and 0.086 respectively than NCC. But in comparison, NCC has lower mean ratio i.e. 0.021 and it shows better performance. Observing the coefficient of variation of the ratio, we can conclude that BOK ratio during the study period has been more consistent. CV of LBL is 25.31 which show less consistency than that of BOK and more consistency than NCC.

The analysis shows that BOK has bad performance in case of non performing loan. LBL also has great amount of non performing loan if non performing loan will increased that effect in overall banking business. So, LBL and BOK should increase their provision amount and it will decreases profit.

# 4.2.2.3 Interest Expenses to Total Deposit Ratio

This ratio measures the % of total interest paid against total deposit .A high ratio indicates higher interest expenses on total deposit and vice versa.

Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
Bank								
LBL	0.0411	0.0518	0.0447	0.0355	0.0294	0.040	0.007	17.50
BOK	0.0417	0.0310	0.0263	0.0223	0.0226	0.028	0.009	32.14
NCC	0.0516	0.0470	0.0457	0.0389	0.0296	0.042	0.01	23.80

# Table No. 4.8Interest Expenses to Total Deposit Ratio

(Rs. in million)

Source appendix IVb and IIsg

Above table shows, that the ratios of NCC has decreasing trend. BOK has decreasing trend from 2007/08 to 2010/11 and 2011/12 ratio is again increased and LBL has fluctuating trend.

NCC has highest and equal mean ratio i.e. 0.042. The mean ratio of LBL is 0.40. So these three bank's mean ratio shows that these banks have high interest expenses and are not successful to collect cheaper deposit in comparison. BOK has nearly equal 1 mean ratio (i.e. 0.028) and it shows satisfactory level than other i.e. they are successful to collect cheaper deposit than LBL and NCC.

NCC has coefficient of variation i.e. 23.80.BOK have highest CV i.e. 32.14, it shows less consistency of ratios of BOK. LBL ratios during study period, has been seen more than that of others because of its lower CV i.e. 17.5%.

# 4.2.2.4 Interest Expenses to Total Expenses Ratio

This ratio measures the percentage of interest paid against total expenses. The high ratio indicates the low operational expenses and vice versa. The ratio indicates the costly sources of funds.

# Table No 4.9Interest Expenses to Total Expenses Ratio

					(		/	
Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
Bank								
LBL	0.5974	0.6392	0.5873	0.5097	0.515	0.569	0.057	10.01
BOK	0.6425	0.555	0.5063	0.4472	0.4538	0.520	0.078	15.00
NCC	0.6514	0.6230	0.6134	0.5478	0.4988	0.586	0.064	10.92

(Rs. in million)

Source: Appendix IV b and IV a

Above table shows that the ratios of BOK has decreasing trend from 2007/08to 2010/11and at 2011/12 it is increased than 2010/11 .NCC has also decreasing trend of ratio till 2011/12.The ratios of LBL has fluctuating trend.

The mean ratios of LBL and NCC are 0.569 and 0.586 respectively. The ratio of BOK has appeared in better position than LBL and NCC and these three banks has high interest expenses and it can't b success to maintain better position in comparison.

The ratio of LBL and NCC shows more consistency than BOK and CV of these banks are 10.01% and 10.92% respectively.

BOK has lower ratio than other banks. So, from analysis, we can say that decrease in cost of the deposits, the volume of interest expenses has been decreasing and BOK has low cost of deposits than others.

### 4.2.2.5 Interest Expenses to Total Working Fund Ratio

This ratio measures the percentage of total interest paid against the total working fund. A high ratio indicates the higher interest expenses and vice versa.

# Table No 4.10Interest Expenses to Total Working Fund Ratio

							-	
Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
Bank								
LBL	0.0373	0.0411	0.0385	0.0303	0.0245	0.034	0.007	20.58
BOK	0.0375	0.0279	0.0237	0.0198	0.020	0.025	0.009	36.00
NCC	0.0458	0.0389	0.0380	0.0327	0.0244	0.035	0.01	28.57

(Rs. in million)

Source: Appendix IV b and III e

Above table shows, that the ratios of NCC has decreasing trend. BOK has decreasing trend of ratio from 2007/08 to 2010/11 and at 2011/12 it is increased again and LBL has fluctuating trend.

NBBL has highest mean ratio and mean ratio of it is 0.036.Similarly, LBL and NCC have mean ratio higher than BOK and NCC and their mean ratio s are 0.034 and 0.035 respectively. The mean ratio of BOK is 0.025.

During the study period LBL ratio shows more consistency as it has lowest CV (i.e.20.5) .CV of BOK shows less consistency than that of LBL and NCC and the CV of them are 36.00.

From analysis, we can said that BOK shows better performance as it is successes to decrease interest expenses .The mean ratio of LBL and NCC indicates the higher interest expenses on total working fund than BOK.

### 4.2.2.6 Deposit Mobilization per Branch

Deposit mobilization per branch shows the average mobilization of deposit. Higher deposit mobilization per branch shows the higher collection of deposit per branch.

					(Rs. in	million)	
7	Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean
Bank							
LBL		826.53	557.24	652.28	719.83	785.98	708.37
BOK		1753.24	1692.67	1750.61	1693.10	1908.77	1759.67
NCC		381.20	390.47	478.21	575.99	673.18	499.81

# Table No. 4.11Deposit Mobilization per Branch

Source: Appendix IIg

The above table shows BOK has highest deposit mobilization per branch (i.e1759.67), it indicates the higher collection of deposit per branch and NCC has lowest deposit mobilization per branch ratio i.e. 499.81.

#### 4.2.2.7 Credit Mobilization per Branch

Credit mobilization per branch shows the average mobilization of credit. Higher credit mobilization per branch shows the higher lending per branch.

# Table No 4.12 Credit Mobilization per Branch

(Rs	in	mi	llion)	•
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					(	
Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean
Bank						
LBL	523.55	429.92	446.87	514.36	601.72	503.28
BOK	901.53	810.33	833.48	919.37	955.73	884.08
NCC	250.48	282.03	350.60	420.29	572.60	375.2

Source: Appendix IIIf

Above table shows that BOK has highest credit mobilization per branch as it has highest mean amount and the mean is 884.08.NCC has lowest credit mobilization per branch and the mean is 375.2. The mean credit mobilization per branch of LBL is 503.28 and it shows higher lending per branch than NCC and lower lending per branch than BOK.

### 4.2.3 Liquidity Ratio

Satisfactory liquidity position is one of the distinguishing characteristics of a sound banking system. As a critical factor of evaluation liquidity is the ability of bank to satisfy the credit needs of the community, to meet demand for deposits and deposits substitutes to oblige maturing obligation on time without loss to these bank and without unfavorable impact on longer projections on profitability's high liquidity ratio shows the financial strength of the firm.

Liquidity opposition of sample CBs is analyzed by using the following relevant liquidity ratios:

# 4.2.3.1 Current Ratio

The calculation of current ratio is based on a simple composition between current assets and current liabilities .It measures short term solvency and the strength of firm, so it is often called liquidity solvency ratio of working capital ratio. It is important to note the very high ratio of current assets to current liabilities may be indication of stock management practices, as it might signal excessive inventories for the current requirements and poor credit mgmt in terms of over extended account receivable.

# Table No. 4.13Current Ratio

			(Rs. in million)						
Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V	
Bank									
LBL	1.0173	1.0507	1.0589	1.0687	1.1167	1.06246	0.0316	2.97	
BOK	0.9259	0.7289	0.7708	0.8030	0.8046	0.80664	0.0657	8.15	
NCC	1.0359	1.0487	1.0560	0.9498	1.133	1.04468	0.0613	5.87	

Source: Appendix-IIi and III c

The above table shows the liquidity position of five banks in terms of current assets to current liability ratio. LBL has highest current ratio in F/Y 2011/12, i.e 1.1167and lowest ratio in year 2007/08 i.e. 1.0173.Similarly the highest ratio of BOK is 0.9259 and lowest ratio is 0.7289. NCC has highest ratio in year 2010/11 i.e. 1.133 and lowest ratio in year

2010/11i.e. 0.9498. The analysis shows LBL has current ratio in increasing trend and the ratio of BOK is in fluctuating trend. NCC has also its current ratio in increasing trend except in year 2010/11.

If we measure the performance of these banks, based on mean performance, BOK is weak than other two CBs. The mean current ratio of BOK is 0.80664. Similarly the mean current ratio of LBL and NCC are 1.06246 and 1.04468 respectively. So we can say LBL and NCC have maintained good liquids assets in comparison with BOK and it indicates that they are capable to pay their current obligations.

The standard deviation of BOK is 0.0657 which is higher than other two banks. The coefficient of variation between the current ratio of BOK is 8.15 which is higher than other three banks. Thus it can prove that current ratio of BOK is less consistent than LBL and NCC.

Thus, in conclusion, the table indicates that the ratios of sample five banks are below than normal standard 2:1.Generally, the standard current ratio should be 2:1but these banks are not being able to maintain the appropriate standard

### 4.2.3.2 Liquid Fund to Total Deposit Ratio

The total deposit constitutes the major part of the banks liquidity. Flow of this liquidity is always uncertain in the banks fund management. Hence, the ratio of liquid fund to total deposit indicates the banks strength to meet uncertain outflow or deposits. The measurement of this ratio is presented in table below:

					(113.		1)	
Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
Bank								
LBL	0.3547	0.2518	0.2941	0.1071	0.05315	0.2121	0.1140	53.75
BOK	0.4083	0.41186	0.3943	0.3784	0.32915	0.3844	0.0310	8.08
NCC	0.1801	0.1482	0.17268	0.1078	0.1608	0.0271	0.0271	17.66

# Table No.4.14Liquid Fund to Current Liability Ratio

(Da in million)

Source: appendix IIIb and IIi

Above table explains that the ratio of BOK is highest throughout the year. The ratio of first two years is in increasing trend. After two years BOK has fluctuating trend. LBL has lowest ratio i.e. 0.05315 in 2011/12 and highest ratio i.e. 0.3547 in 2001.BOK has highest

ratio i.e. 0.41186 in 2008/09 and lowest ratio i.e. 0.32415 in 2011/12. Similarly, NCC has highest ratio i.e. 0.1801 in 2007/08 and lowest ratio i.e. 0.1078 in 2010/11.

The coefficient of variation between liquid fund to total deposit ratio of LBL, BOK and NCC is 53.75, 8.08 and 17.66 respectively. It indicates that the liquid fund to totals deposit ratio of BOK and NCC is slightly more consistent than LBL.

From analysis, it can be said that, if we measure the performance of these banks based on mean, liquid fund to total deposit ratio of BOK is greater than other banks. It indicates that these bank have strength to meet uncertain outflow or deposit than LBL and NCC.

#### 4.2.2.3 Cash and Bank Balance to Total Deposit Ratio

This ratio measures the ability of a bank's to meet unexpected demand made by the depositor's i.e. Current account holders, saving account holder, margin holder and others. This ratio indicates the ability of bank's immediate funds to cover their current margin, calls and other saving deposits. A high ratio represents the greater ability to cover their deposits and vice versa.

Too high ratio of cash and bank balance to total deposits may be unsuitable and harmful because it affects their profitability position. Too low ratio is unfavorable as capital will be tied up and opportunity cost will be higher.

# Table No. 4.15Cash and Bank Balance to Total Deposit Ratio

					(-			
Year	2007/08	2008/09	2009/10	2010/11	2011/12	mean	S.D	C.V
Bank								
LBL	0.2941	0.2907	0.2044	0.1200	0.0837	0.1985	0.0862	43.44
BOK	0.0818	0.0679	0.0942	0.0909	0.0811	0.0831	0.0101	12.21
NCC	0.1825	0.108	0.1702	0.0783	0.1043	0.1286	0.0410	31.95

(Rs. in million)

Source: Appendix IIIa and IIg

Above table shows that, the ratio of LBL is in decreasing trend. A higher ratio would affect the bank's profitability and its financial performance as a large part of the funds remains idle. Thus the bank should maintain an appropriate ratio. However, there is no standard ratio in this aspect. In case of LBL, the ratio of F/Y 2007/08 is 0.2941 which represent the large portion of cash and bank balance to total deposits over this study period. LBL has

lowest ratio i.e. 0.0837 in 2011/12. Similarly, the highest ratio of BOK is 0.0942 and lowest ratio is 0.0679. The highest ratio of NCC is 0.01825 and lowest ratio is 0.0783.

If we measure the performance of these banks on based of the mean, LBL and NCC have higher average than other bank. So these banks have ability to meet unexpected demand made by depositors.

The coefficient of variation between cash and bank balance to total deposit ratio of LBL is 43.44 which is comparatively higher than other banks. Similarly, CV of BOK and NCC is 12.21 and 31.95, respectively. Thus cash and bank balance to total deposit ratio of LBL is less consistent than other banks.

#### 4.2.3.3 Cash and Bank Balance to Interest Sensitive Deposit Ratio

Saving deposit is interest sensitive deposit ratio. The ratio of cash and bank balance to interest sensitive deposit ratio measures the bank ability to meet its sudden outflow of saving deposits due to the change in interest rate. Cash and bank balance to interest sensitive deposit ratio of five banks are presented below in this table:

# Table No. 4.16Cash and Bank Balance to Interest Sensitive Deposit Ratio

Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
Bank								
LBL	1.8347	1.2708	0.8166	0.4231	0.2943	0.9279	0.5672	61.13
BOK	0.1569	0.1380	0.1820	0.1701	0.1567	0.16074	0.0159	9.89
NCC	0.6032	0.3415	0.4131	0.1693	0.2193	0.3492	0.1536	43.99

(**Rs. in million**)

Source: appendix: IIIa and IIe

Above table shows LBL has highest cash and bank balance to interest sensitive deposit ratio in comparison of other four banks. It has highest ratio i.e. 1.8347 in the year 2007/08 and lowest ratio i.e. 0.2708 in F/Y 2008/09. The highest ratio of BOK and NCC is 0.1820 and 0.6032 respectively. The low volume of saving deposits in the deposit mixture of LBL has caused its ratio to be higher. High volume of saving deposit in deposit mixture of BOK has caused its ratio to be lower and NCC has low volume of saving deposit than BOK. The mean ratio of LBL is 0.9279 which is greater than others.

The coefficient of variation between cash and bank balances to interest sensitive deposit ratio is 61.13 in terms of LBL which id higher than that of others. Similarly CV of BOK

and NCC is 9.89 and 43.9 respectively. It can be said that LBL ratios have less consistency than of other banks. Ratios of BOK has consistency than NCC.

From the analysis we can say that the overall liquidity ratio of LBL and NCC is the best, they have better maintenance of its liquidity than others. But these banks have higher CV than BOK. It cannot be said that LBL, and NCC has better position.

#### 4.2.3.4 Cash and Bank Balance to Current Assets Ratio

Cash and bank balance to current assets ratios measures the ability in playing that to current deposits as well as other deposits. Current depositors must be paid whenever they demand their deposits. In the present study, cash and bank balance represents total of local currency, foreign currencies, cheques in hand and various bank balances in local as well as foreign banks. This ratio measures the percentage most liquid fund with the current assets. High ratio indicates the bank's sound ability to meet the daily cash requirement of their customer deposit. Low ratio is also dangerous. If bank maintain low ratio, bank may not able to make the payment against cheques. So bank has to maintain cash and bank balance to current assets ratio properly.

# Table No. 4.17Cash and Bank Balance to Current Assets Ratio

			(Rs in million)						
Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V	
Bank									
LBL	0.2714	0.2386	0.1800	0.1035	0.0705	0.1728	0.077	44.56	
ВОК	0.0826	0.0892	0.1172	0.1081	0.0944	0.0983	0.01	12.94	
NCC	0.1653	0.0932	0.1454	0.0672	0.0872	0.1116	0.038	34.05	

Source: Appendix: IIIa and IIIc

Above table shows that LBL has highest cash and bank balance to current assets ratio throughout the year. The highest ratio of LBL is 0.2714 and lowest ratio is 0.0705. Similarly, NCC has its ratio in fluctuating trend. It has highest ratio i.e. 0.1653 in F/Y 2007/08 and lowest ratio i.e. 0.0672 in the year 2010/11. In case of BOK, in first 3 years it has increasing trend and after that it has decreasing trend.

The mean ratio of LBL and NCC has been successful in maintaining its higher cash and bank balance to current assets ratio in comparison to BOK. The mean ratio of BOK is 0.0983.

The coefficient of variation between cash and bank balance to current ratio of LBL and NCC is higher than BOK .It shows that the variability of the ratios of BOK is more uniform.

In conclusion we can say that the liquidity position of LBL and NCC is better than BOK but it does not mean that BOK cannot meet its daily requirement to make the payment on customer's deposit. In case of LBL has to incest its liquid fund in more productive sectors to earn more profit.

#### 4.2.3.5 Loan and Advances to Current Assets Ratio

Loan and advances is the major component in total assets, which indicates the ability of banks to analyze its deposit in the firm of loan and advances to earn high return. Commercial banks provide loan and advances in appropriate level to find out portion of current assets, which is granted as loan and advances. Loan and advances to current assets ratio is presented in the table below:

		(Rs. in million)								
Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V		
Bank										
LBL	0.5844	0.6334	0.6035	0.6163	0.645	0.616	0.033	5.35		
BOK	0.51933	0.6292	0.5924	0.6461	0.5825	0.593	0.054	9.10		
NCC	0.5952	0.6208	0.6263	0.6259	0.6546	0.624	0.033	5.28		

# Table No. 4.18Loan and Advances to Current Assets Ratio

Source: Appendix IIIf and IIIc

Above table explains the five ears trend of loan and advances to current t assets ratio. NCC has its ratio in increasing trend in first three years, it has highest ratio i.e. 0.6546 in the year 2011/12 and lowest ratio is 0.5952 in year 2007/08. It has lowest ratio i.e. 0.6029 in the year 2010/11.the highest ratio of BOK is 0.6461 and lowest ratio of this bank is 0.5193. Similarly, the highest ratio of LBL is 0.645 and lowest ratio of LBL is 0.5844.

In case of mean ratio, LBL and NCC has also slightly better than BOK they have mean ratio 0.616 and 0.624 respectively. The coefficient of variation between loan and advances to current ratio of LBL and NCC is lower than that of others which shows the ratio of them is more consistent than BOK.

If sufficient loan and advances cannot be granted, it should be pay interest on those utilized deposit funds and may lose earnings. So, from analysis, it can be said that BOK shows weak performance in comparison of other two banks, they are not being able to provide loan and advances in appropriate level. But LBL and NCC have sufficient loan and advances to grant in comparison.

#### 4.2.4 Analysis of Portfolio Behavior of Loan and Advances

In this section, the portfolio management of credit of concerned banks to various sectors of economy and various types of borrowers is analyzed. In this section, the ratio of credit to various sectors to total volume of credit is measured.

#### 4.2.4.1 Priority Sector Credit to Total Credit

Commercial banks have various options to mobilize their funds; credit to priority sector is one of them. The banks extended credit to priority sector up to the limit specified by NRB .The concerned banks have invested certain position of their total credit outstanding to the priority sectors. (See Appendix V)

				(•		<b>'</b>
Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean
Bank						
LBL	0.102	0.1191	0.1783	0.2	0.1256	0.1450
BOK	0.0770	0.0875	0.0482	0.0377	0.0569	0.061
NCC	0.1145	0.1085	0.1122	0.1054	0.0908	0.1082

# Table No 4.19Priority Sector Credit to Total Credit

(Rs in million)

Source: Source: Annual reports of LBL, BOK and NCC in 2011/12.

The above table shows that LBL has decreasing trend of ratios till 2010/11.BOK and NCC have fluctuating trend of ratio. The tabulated value represents less than 12% of the credit of these commercial banks have been directed to this sector. Only LBL has granted more than 12% of its total credit and advances.

LBL has highest mean ratio of 0.1450 and BOK has lowest mean ratio of 0.061. The mean ratio of NCC is 0.1082. The combines mean ratio of all those bank is 0.1018. NRB imposed penalty in case of non compliance of 12% criteria but the combined mean ratio i.e. 0.1018 represents the mean performance of these banks in below the minimum requirement stipulated by NRB directives. The performance of NCC and BOK is far below than that of LBL. The ratios are presented in bar diagram below;



#### 4.2.4.2 Deprived Sector Credit to Total Credit Ratio

This ratio indicates the direct investment made by commercial bank to income generating sector from the total credit portfolio. (See Appendix V)

				(Rs. in million)					
Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean			
Bank									
LBL	0.0157	0.0207	0.0385	0.0412	0.0321	0.0296			
BOK	0.0267	0.0216	0.0242	0.0288	0.0295	0.0261			
NCC	-	0.0257	0.0267	0.0293	0.0284	0.0220			

# Table No 4.20Deprived Sector Credit to Total Credit Ratio

Source: Source: Annual reports of LBL, BOK and NCC in 2011/12.

The above table shows the increasing trend of deprived sector credit to total credit ratio of LBL from 2007/08 to 2010/11 and ratio is decreased at 2011/12. BOK has increasing trend from 2009/10 to 2011/12. The mean ratio of LBL is higher than other two banks i.e. 0.02965 whereas the NCC and BOK are 0.6220 and 0.02616 respectively which represents the average performance of these banks is below the minimum requirements stipulated by NRB directives and the provision directed to commercial banks is to require extend credit to the deprived sector as 0.25-3% of total credit. The ratios are presented in bar diagram as follows:



#### 4.2.4.3 Private Sector Credit to Total Credit Ratio

Commercial banks earn profit by mobilization of deposit through out sides assets and credit is one of the important tools to increase profit. Private sector lending is very much profitable if loan takes is trust worthy and it is very risky also. Most banks likes to advances the credit to private sector it is very much important to learn how the banks are mobilizing their fund. (See Appendix V)

# Table No. 4.21Private Sector Credit to Total Credit Ratio

				(11)	<b>5.</b> III IIIIII0II <i>)</i>	
Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean
Bank						
LBL	0.9584	0.9667	0.9984	0.9758	0.9935	0.9765
BOK	-	-	-	-	-	-
NCC	0.9857	0.9967	0.9844	0.9863	1	0.9906

(Rs. in million)

Source: Source: Annual reports of LBL, BOK and NCC in 2011/12.

The above table explains, that the proportion of credit and advances granted to private sector in significant increase of all three banks. The mean ratio ranges from 0.97, to 0.9906.The ratio explains about the fluctuating trend in all banks. The mean ratio of NCC and LBL are 0.9906 and 0.765 respectively. The mean ratio of NCC is highest among the three banks. It can be said that NCC has higher private sector credit to total credit ratio than other banks because of lending and investing opportunity in private sector. Though the performance of all banks is good and the continuous effort to increase the private sector participant in development activities and the trend toward the globalization of economy may cause this ratio to increase in future.

So, the ratio in aggregate explains the private sectors importance in banking business and all of these banks. Therefore, the lending activities of these banks are highly depended upon the private economy and its development. In the area of privatization, this ratio is good in the case of all banks but this should increase in the coming future.

#### 4.2.4.4 Credit to Government Enterprises

Commercial banks have various options to mobilize their funds. Credit to government enterprises is one of them. To earn high profit, most of commercial banks avoid extending credit on this area but concerned banks have invested certain portion of their total credit outstanding to the government enterprises. (See Appendix V)

				(	,	,
Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean
Bank						
LBL	0.0211	0.01902	0.01049	0.01312	0.00699	0.01196
BOK	-	-	-	-	-	-
NCC	-	-	0.01188	0.01128	-	0.00463

# Table No. 4.22Credit to Government Enterprises

(Rs. in million)

Source: Source: Annual reports of LBL, BOK and NCC in 2011/12.

Above table shows that all three concerned banks have decreasing trend of credit to government enterprises. It means that the dependency of lending in private is increasing inn the commercial banks. This may have due to lending and investing opportunity in private sector. Lending in government enterprises is less than that of private sector. The mean ratio of LBL is highest than other two banks i.e. 0.01196>0.006214>0.004633. The overall combined mean shows that 0.7602 % of the total credit of these commercial banks have been contributed to the government enterprises.

#### 4.2.4.5 Sector Classification of Credit (NCC)

()								
Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean		
Sector								
Priority	7.62	15.97	9.21	8.5	7.55	9.77		
Deprived	-	2.23	2.19	2.37	2.36	1.83		
Private	65.72	87	83.19	82.97	83.11	80.4		
Government	-	-	1	0.95	-	0.39		
Other	4.46	1.36	4.4	5.19	6.96	4.474		

(Rs. in million)

# Table No. 4.23Sector Classification of Credit (NCC)

Source: Appendix V

The above table shows the percentage of priority sector, deprived sector, private sector, government sector and other sector credit of NCC. The mean of priority and deprived sector credit are 9.77% and 1.83% respectively. It indicates that the mean performance of NCC is below the minimum requirements stipulated (12% and 3%) by NRB directives. Similarly, the mean of private sector, government sector and other sector credit are 80.4%.0.39% and 4.475 respectively. The percentage of sector classification of credit of NCC is presented in pie chart below;





### 4.2.4.6 Sector Classification of Credit (LBL)

Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean
Sector						
Priority	9.126	9.98	13.87	15.2	10.65	11.76
Deprived	1.4	1.47	2.99	3.13	2.72	2.396
Private	55.6	86.57	82	79.76	84.26	83.64
Government	1.89	1.7	8.7	1.07	5.5	3.772
Other	1.96	-	2.51	8.25	1.82	2.908

# Table No 4.24 Sector Classification of Credit (LBL)

Source: Appendix V

The above table shows that the mean of priority sector credit and deprived sector credit are 11.765% and 2.396% respectively. It indicates that the mean performance of LBL for priority and deprived sector is nearly equal to the minimum requirements stipulates (12% and 13%) by NRB directives. Similarly, the mean of private, government and other sectors credit of NCC are 83.64%, 3.772% and 2.908% respectively. Sectors classifications of credit of LBL are presented inn pie charter below;

# Fig No. 4.4 Mean Ratios of Credit Disbursed to Different Sectors of NIBL



(Rs. in Million)

#### 4.2.5 Profitability Ratio

Profit is the difference between revenues and expenses over a period of time. Hence, management of firm is interested in the operating efficiently of the firm's profitability ratio. The main focus of commercial banks is to be enough profit .So as to met a variety of objectives like achieving a desirable liquidity position, meet fixed interest obligation, overcome the future contingencies, explicit hidden investment opportunities encourage branch expansion, finance government to need of development fund etc. profitability ratios are as matter of fact, best indicators of overall efficiency of the bank ,because they compare return of value over bounds above values put into business with the help as assets employed.

#### 4.2.5.1 Interest Income to Total Income Ratio

This ratio measures the volume of interest income in total income. The high ratio indicates the banks performance on other fee- based activities and high contribution made by lending and investing activities.

		(						
Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
Bank								
LBL	0.8799	0.7860	0.8300	0.8075	0.8145	0.823	0.043	5.22
BOK	0.8432	0.8282	0.834	0.8216	0.822	0.829	0.028	3.37
NCC	0.8295	0.8222	0.8203	0.8392	0.8512	0.832	0.03	3.60

# Table No 4.25Interest Income to Total Income Ratio

(Rs. in million)

Source appendix IVd and IVc

Above analysis shows that LBL and BOK have fluctuating trend of ratio. NCC has decreasing trend of ratio from 2007/08 to 2009/10 and after that the ratio has decreasing trend. NCC has highest mean ratio of 0.832. The mean ratios of LBL and BOK are 0.823. It can be concluded that BOK ratio during the study period, has been seen more consistent because of its lower CV i.e. 3.37%.

From analysis it can be said that NCC give higher contribution of interest income in total income and the highest ratio of NCC indicates greater dependency on fund based activities. But the mean ratio of BOK indicates the low contribution made by lending and investing activities.
## 4.2.5.2 Interests Income to Interest Expenses Ratio

This ratio measures the gap between interest rate offered and interest rate charged. The credit creation power of commercial banks has high impact on this ratio.

# Table No 4.26Interest Income to Interest Expenses Ratio

(Rs in million)

					(113	• • • • • • • • • • • • • • • • • • • •	UII)	
Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
Bank								
LBL	1.6356	1.3848	1.6096	1.9287	2.0385	1.799	0.238	13.84
BOK	1.8102	1.9874	2.1677	2.534	2.5739	2.214	0.304	13.73
NCC	1.604	1.7265	1.6976	2.09	2.406	1.910	0.295	15.44

Source Appendix IVd and IVb

Above table shows that The highest cost of deposit mix of LBL has caused the gap between interest income and interest expenses to be least. The mean ratio of BOK i.e. 2.214 also shows better position than that of LBL and NCC and the mean ratios of NCC is 1.910.

It can be concluded that ratio of BOK during the study period, has been seen more consistent than that of other banks because of its lower CV and the CV is 13.73%. The coefficient of variation between the ratio of LBL and NCC are 13.84% and 15.44% respectively.

From above analysis, it can be said that BOK has charging high interest rate to borrowers and offering low interest rate to the depositors in comparison to the other three banks.

## 4.2.5.3 Operating Profit to Loan and Advances Ratio

Operating profit to loan and advances ratio measures the earning capacity of commercial banks. Higher ratio indicates higher earning capacity from loan and advances and vice versa.

Table No 4.27
<b>Operating Profit to Loan and Advances Ratio</b>

					(Rs	s. in mill	lion)	
Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
Bank								
LBL	0.0120	0.0132	0.0154	0.0212	0.0215	0.016	0.006	47.5
BOK	0.0479	0.0388	0.0334	0.0349	0.0418	0.039	0.007	17.94
NCC	0.0334	0.0319	0.274	0.0355	0.0311	0.031	0.007	22.58

Source: Appendix IVe and IIIf

Above table shows, that the ratio of LBL has maintained increasing trend during study period. BOK has fluctuating trend of ratios. NCC has decreasing trend from 2007/08 to 2009/10 and after that it has fluctuating trend till 2011/12.

From mean point of view, the mean ratios of BOK show better earning capacity of these banks and the mean ratios them are 0.060 and 0.039 respectively. LBL has lowest mean ratio i.e. 0.016 and it indicates that LBL has lower earning capacity than other banks. The mean ratios of NCC is 0.031.

It can concluded that LBL ratio during the study period has been seen less consistent because of its higher CV i.e. 37.5% and the ratio of BOK has been seen more consistent because of it is lower CV i.e. 17.94%.

From above analysis, it can be said that BOK has better earning capacity from loan and advances and the mean performance of LBL shows the lower earning capacity from loan and advances. But NCC is in average position of earning from loan and advances in comparison of others.

### 4.2.5.4 Return on Loan and Advances Ratio

This ratio measures the earning capacity of commercial banks through its fund mobilization as loan and advances. Higher ratio indicates greater success to mobilize fund as loan and advances and vice versa.

					(Rs	. in milli	ion)	
Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
Bank								
LBL	0.0029	0.0095	0.0109	0.0118	0.0086	0.008	0.004	50
BOK	0.0311	0.0263	0.0212	0.022	0.0247	0.025	0.003	12
NCC	0.0231	0.0216	0.0191	0.0243	0.0348	0.024	0.007	29.16

# Table No 4.28Return on Loan and Advances Ratio

Source: Appendix IVf and IIIf

The above table shows LBL has increasing trend of ratios from 2008/09 to 2010/11 and after that the ratios are decreased at 2011/12.BOK and NCC have decreasing trend of ratios from 2007/08 to 2009/10 and after that the ratios have increasing.

BOK has highest mean ratio of 0.025.So we can say that BOK is string to mobilize fund and it causes better earning capacity than LBL and NCC. LBL has lowest mean ratio of 0.008 and lowest mean ratio indicates lower success to mobilize fund as loan and advances. The mean ratios of NCC is 0.024 and it indicates better earning capacity than LBL.

The ratios of LBL has been seen less consistent because they have higher CV than other i.e. 50% .The ratio of BOK has been seen more consistent as it has lower CV of 12%.The CV of NCC is 29.16%.

From above analysis, it can be said that BOK has higher earning capacity through fund mobilization as loan and advances and lower mean ratio of LBL indicate lower success to mobilize fund as loan and advances.

## 4.2.5.5 Return on Total Working Fund Ratio

This ratio is very much crucial for measuring the profitability of funds invested in bank's assets. It measures the returns on assets.Net profit refers profit after interest and taxes. Total assets comprise those assets which appear on the assets side of balance sheet.

					( <b>N</b> S		1011)	
Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
Bank								
LBL	0.0017	0.0058	0.0064	0.0072	0.0055	0.005	0.002	40.00
BOK	0.0143	0.0113	0.0090	0.0106	0.0270	0.014	0.006	42.85
NCC	0.0133	0.0129	0.0116	0.0149	0.0225	0.015	0.004	26.26

# Table No 4.29Return on Total Working Fund Ratio

Source: Appendix IVf and IIIe

Above table shows NBBL has fluctuating trend .NCC, BOK has decreasing trend of ratios from 2007/08 to 2009/10 and after that the ratios have increasing trend till 2011/12 .LBL has increasing trend of ratio from 2007/08 to 2010/11 and the ratio is decrease at 2011/12.

LBL has lowest mean ratio i.e. 0.005 .the mean ratio of NCC is 0.015 and it is higher than that of LBL, BOK and lower than that of NCC. the mean ratio of BOK is 0.014 and 0.010 respectively. So, from mean point of view, we can say that the NCC is string to mobilize the total working fund to occur return because its ratio has appeared better position than that of others. But LBL has very poor ratios of return on total assets and BOK, NCC has lowest CV of 26.26, which shows more consistency of ratio than that of others.

If the bank's total working fund is well managed and effectively utilized, the return on such assets will be higher. So, from the above analysis, it can be said that total working fund of NCC is well managed and effectively utilized to occur high return and the return from mobilization of total working fund of LBL is lower than other banks.

# 4.2.5.6 Total Interest Earned to Total Working Fund Ratio

This ratio shows the banks success ness in mobilizing their assets to generate high income. A high ratio is an indicator of high earning power of the bank on its total working fund and vice versa.

Table No. 4.30Total Interest Earned to Total Working Fund Ratio

					(113	•	·11 <i>)</i>	
Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
Bank								
LBL	0.0610	0.0569	0.0620	0.0584	0.0500	0.0576	0.005	8.68
BOK	0.0680	0.0555	0.0514	0.0503	0.0519	0.0554	0.0068	11.91
NCC	0.0740	0.0671	0.0645	0.0684	0.0588	0.0665	0.0056	8.44

(Rs. in million)

Source: Appendix IVd and IIIe

The above table shows the ratio of LBL have maintained fluctuating trend during study period. The ratio of BOK has decreasing trend from 2007/08 to 2010/11 and the ratio is increase at 2011/12 and NCC also has decreasing trend from 2007/08 to 2009/10 and after that it has fluctuating trend.

The highest mean ratio of NCC has better mean ratio i.e.0.0619 and 0.0665 respectively than LBL and BOK. The mean ratio of BOK and LBL is 0.0554 and 0.0576 respectively .So in comparison ratios of these two banks have not appeared better position.

It can be concluded that, the ratio of BOK ratio has been seen less consistent because of its higher CV. The CV of LBL and NCC are 8.68% and 8.42% respectively.

### 4.2.5.7 Return on Equity Ratio

Return on shareholder earning is another effective measure of the profitability of a bank. It measures the company's return towards the involved by owner of the company. Return means the funds after subtraction of all expenses including tax which is actually belongs to the owners. Return on shareholders equity reveals how the company will use the resources of owners.

# Table No. 4.31Return on Equity Ratio

(Rs.	in	mil	lion)	
			mon,	

Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
Bank								
LBL	0.0525	0.0729	0.0855	0.0971	0.0959	0.080	0.02	25.00
BOK	0.3895	0.2738	0.1995	0.1986	0.1999	0.252	0.074	29.36
NCC	0.2182	0.2182	0.1991	0.2657	0.544	0.289	0.129	44.63

Source: Appendix IVf and IIc

Above table shows NCC has fluctuating trend of ratios. The ratio of LBL has increasing trend from 2007/08 to 2010/11 and after that ratio is decreased at 2011/12 and the ratio of BOK has decreasing trend from 2007/08 to 2010/11 and at 2011/12 ratio is again increased.

NCC has highest mean ratio is 0.289. NCC ratio shows that NCC has more efficiently utilized its equity capital than LBL and BOK. LBL has lowest mean ratio and the ratio is 0.080, it indicates lower capacity of utilizing the owner's fund. BOK has mean ratio of 0.252.

The coefficient of variation between the ratio of LBL, BOK and NCC have CV of 25.00%, 29.36% and 44.63% respectively.

# 4.2.6 Growth Ratio

Growth ratios are directly related to the fund mobilization and investment mgmt of commercial banks. It represents how well the commercial bank maintaining the economic and financial position. The highest ratio represents the better performance of the bank and vice versa. Growth analysis of the banks involves analysis of growth in deposits, loan and advances and net profit. To examine and analyze the expansion and growth of banking business, focusing growth ratios ate calculated in this part of study.

# Table No. 4.32Growth Ratio of Total Deposit

(Rs.	in	mil	lion	1)

Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
Bank								
LBL	0	-0.157	0.1705	0.1035	0.2010	0.063	0.130	206.34
BOK	0	0.0620	0.1283	0.0477	0.1273	0.073	0.049	67.12
NCC	0	0.1950	0.2246	0.2044	0.2522	0.175	0.09	51.42

Source: Appendix IIg

# Table No. 4.33Growth Ratio of Loan and Advances

### (Rs. in million)

Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
Bank								
LBL	0	0.0265	0.0394	0.1510	0.2868	0.100	0.01	10
BOK	0	-0.011	0.1221	0.1950	0.0395	0.069	0.078	113.04
NCC	0	0.3136	0.2431	0.1988	0.222	0.195	0.105	53.84

Source: Appendix IIIf

<b>Table No. 4.34</b>
<b>Growth Ratio of Net Profit</b>

				(Rs. in million)				
Year	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
Bank								
LBL	0	2.265	0.193	0.248	-0.057	0.529	0.875	165.40
ВОК	0	-0.162	-0.097	0.240	0.171	0.152	0.036	23.68
NCC	0	0.224	0.103	0.524	0.921	0.034	0.333	94.06

Source: Appendix IVf

Table No 37, shows that all three banks have fluctuating trend of growth ratio of deposit. LBL and NBBL have also negative growth rate in f/y 2008/09.NCC has highest mean ratio it shows the grater collection from depositors.

Table no 38, shows that LBL has increasing trend of ratio from 2007/08 to 2011/12, BOK has increasing trend from 2007/08 to 2010/11 and after it at 2011/12, and the ratio is decreased. NCC has decreasing trend till 2010/11. The highest ratio of NCC i.e. 0.195 indicates that it is more successful in utilizing its fund as loan and advances in comparison to others. BOK has mean ratios of 0.069; it indicates that the fund mobilization for loan and advances is not in optimum condition. The mean ratios of LBL is 0.100.

Table no 39, shows that LBL has fluctuating trend of ratio. BOK has decreasing trend from 2007/08 to 2009/10. NCC has fluctuating trend . LBL has also mean ratio than BOK and NCC and the ratio is 0.529. The mean ratios of BOK and NCC are 0.152 and 0.354 respectively.

### **4.3 Statistical Tools**

Under this section, correlation analysis, trend analysis and hypothesis test have been used for the different variables.

### 4.3.1 Coefficient of Correlation Analysis

Under this topic, Karl Pearson's coefficient of correlation measures the relationship between variables and denoted by r. Coefficient of correlation analysis is that statistical tool which can be used to describe the degree to which one variable is linearly related to another. It is commonly used to measure the linear association of two variables. The result of coefficient of correlation is always between + 1 to -1 when r = +1, it means there is

perfect relationship between two variables and vice versa. When r = 0, it means there is no relationship between two set of figures. Under this topic it is tried to find out relationship between total deposit and loan advances, investment and loan and advances, total income and loan and advance, Loan provision and advances, interest income and net profit.

## 4.3.1.1 Coefficient of Correlation between Total Deposit and Loan and Advances

Total deposit is independent variable and loan and advances is dependent variable. The coefficient of correlation between them measures the degree of relationship between these two variables. The main objective of computing r between these two variables is to justify whether deposits are significantly used as loan and advances in a proper way or not.

Bank	Correlation	Coefficient of	P.E ratio	6*P.E ratio
		determination		
LBL	0.8192	0.67108	0.09921	0.59526
BOK	0.7125	0.5076	0.1489	0.8934
NCC	0.9978	0.9956	0.001326	0.007856

Table No. 4.35Coefficient of Correlation between Total Deposit and Loan & Advances

Source: Appendix VI

The above table shows that the coefficient of correlation n between total deposit and loan and advances of LBL is NCC are 0.8912 and 0.9978 respectively. Since the correlation coefficient of these banks are higher than 6\* PE r, the values of r of these banks are significant and these value also shows the positive relationship between total deposit and loan and advances .The value of r of BOK is 0.7125 which are lower than 6\* PE r, and it indicates the value of r of these banks are insignificant.

Here, the value of coefficient of determination (r2) of LBL, BOK and NCC are 0.67108, 0.5076 and 0.9956 respectively which implies that respective percentage of variation in loan and advances due to the variation in the total deposit.

## 4.3.1.2 Coefficient of Correlation between Investment and Loan and Advances

The coefficient of correlation between total investment and loan and advances measures the degree of relationship between these two variables. The purpose of computing r between these two variables is to find out whether the investment is significant in mobilizing funds and in contributing in total amount of loan and advances or not.

# Table No 4.36 Coefficient of Correlation between Investment and Loan and Advances

Bank	Correlation	Coefficient of	P.E ratio	6*P.E ratio
		determination		
LBL	0.7417	0.5507	0.2017	1.2102
BOK	0.7214	0.5204	0.1450	.87
NCC	0.9365	0.8770	0.0372	0.2232

Source: Appendix VI

The above table shows that correlation coefficient between total investment and loan and advances of NCC is 0.9365 and which are higher than 6\* PE r. It indicates that the relationship between total investment and loan and advances of these banks are significant. So it can be said that these two banks are able to contribute its investment in total amount of loan and advances .The value of r of LBL and BOK are 0.7417and 0.7214 respectively, these value indicates positive relationship between two variables but these values are less than 6\* PE r, so it can be concluded that there is no significant relationship between these two variables.

Here, the value of coefficient of determination (r2) of LBL,BOK and ,NCC are 0.5501,0.5204, and 0.8770 respectively which implies that respective percentage 55.01%,52.04%,87.70%, of variation in loan and advances is due to variation in the investment .Thus it can be concluded that the degree of relationship between two variables of NCC and NBBL are highly significant than LBL and BOK. So the investment of NCC and NBBL has been seen significant in mobilizing funds but in comparison NCC is better than that of NBBL.

## 4.3.1.3 Coefficient of Correlation between Total Income and Loan and Advances

Loan and advances is independent variable and total income is dependent variable. The correlation between total income and loan and advances measures the relationship between these two variables. The relationship between these two variables describes the degree of relationship. The value of r explains whether percentage change in loan and advance contribute to increase the some percentage of income.

# Table No. 4.37 Coefficient of Correlation between Total Income and Loan and Advances

Bank	Correlation	Coefficient of	P.E ratio	6*P.E ratio
		determination		
LBL	0.7582	0.5748	0.1286	0.7716
BOK	0666	0.4435	0.1683	1.0099
NCC	0.9688	0.9385	0.0186	0.1116

Source: Appendix VI

The above table shows that the correlation coefficient between total income and loan and advances of NCC is 0.9668, it means positive relationship between these two variables .As comparing these r values with 6\* PE r, it can be said that there is significant relationship between total income and loan and advances . Similarly, r value of LBL and BOK are 0.7582 and 0.666 respectively and these values shows the relationship between variables but being less than 6\* PE r, it can be said that there is insignificant relationship between total income and loan and advances. Thus the values of NCC show that the loan and advances are significant in generating as in increasing income but LBL and BOK have imperfectly correlated degree of relationship.

Here, the coefficient of determination (r2) of LBL, BOK and NCC are 0.5748, 0.4435 and 0.9385, respectively which implies that respective percentage (i.e. 57.48%, 44.35%, and 93.85%) of variation in loan and advances is due to variation in the total income.

# 4.3.1.4 Coefficient of Correlation between Loan Loss Provision and Loan and Advances

Loan loss provision is dependent variable and loan and advance is independent variable. The correlation between these two variable measures the relationship between them.

Bank	Correlation	Coefficient	of	P.E ratio	6*P.E ratio
		determination			
LBL	0.7082	0.5015		0.1507	0.9046
BOK	0.8456	0.7150		0.0862	0.5172
NCC	0.9921	0.9842		0.0047	0.0282

**Table No. 4.38** 

# Coefficient of Correlation between Loan Loss Provision and Loan and Advances

Source: Appendix VI

The above table shows the relation between loan loss provision and loan and advances. The correlation coefficient between loan loss provision and loan and advances of BOK and NCC are 0.8456 and 0.9921 respectively, which shows +ve relationship between these two variables. Comparing r with 6\* PE r, it can be said that there is significant relationship between these two variables because the value of r of these two banks are higher than 6\* PE r. Similarly, the r value of LBL is 0.7082 comparing these values with 6\* PE r, it can be said that there is not significant relationship between two variables of respective banks.

The coefficient of determination of LBL, BOK, and NCC are 0.5015,0.7150 and 0.9842,0respectively which implies that respective percentage (i.e. 50.15%,71.50%, 98.42%,of variation in loan and advances is due to variation in loan loss provision.

## 4.3.1.5 Coefficient of Correlation between Interest and Net Profit

The coefficient of correlation between interest income and net profit measures the relationship between these two variables .The purpose of correlation analysis between interest income and net profit is to find out whether the interest income being significant in generating more return or not.

Bank	Correlation	Coefficient of	P.E ratio	6*P.E ratio
		determination		
LBL	0.7161	0.5127	0.1473	0.8843
BOK	0.9277	0.8606	0.0421	0.2529
NCC	0.8873	0.7873	0.0643	0.3858

# Table No.4.39Coefficient of Correlation between Interest and Net Profit

Source: Appendix VI

The above table shows that the correlation coefficient between interest income and net profit of BOK and NCC are 0.9277 and 0.8873 respectively which shows the positive relationship between these two variables of respective banks. Comparing r value with 6\* PE r, it can be said that there is significant relationship between interest income and net profit because the values of r of these three banks are higher than 6\* PE r. Comparing r value of LBL that are -0.5408 and 0.7161 with 6\* P.E r .so it can be concluded that there is no significant relationship between interest income and bet profit of these banks.

The coefficient of determination of LBL, BOK and NCC are 0.5127, 0.8606, and 0.7873 respectively ,which implies that respective percentage i.e. 51.27%,86.06%,78.73%, ,of variation in net profit is due to the variation in interest income of these banks.

So, the degree of relationship between interest income and net profit of LBL is positive but not perfectly correlated and BOK had –ve value. It indicates that interest income of these two banks is not significant ingenerating more return. BOK has best degree of relationship between interest income and bet profit .NCC and NBBL have nearly equal r value. In comparison degree of relationship they have, are not better than BOK but better than BOK and LBL.

# 4.4 Major Findings of the Study

From the analysis the major findings of the study can be analyzed as follows

- The mean growth rate of total deposit of NCC is higher than that of others. The mean growth rate of total deposit of LBL is lower than NCC and BOK and BOK is in average.
- The mean growth rate of loan and advances of NCC is higher than that of others. But mean growth rate of BOK is lower than NCC and LBL and LBL is in average.
- The mean growth rate of net profit of LBL and NCC is higher and growth rate of BOK is lower in comparison of LBL and NCC.
- In case of total investment to total deposit ratio and investment to total loan and advances and investment ratio, BOK is better as they have higher mean ratio than others. It indicates that these two banks have better capacity of mobilizing total deposit on investment .But LBL has been seen but interested in investing its fund in different securities as it has lower mean ratio of total investment to total deposit and investment to total loan and advances and investment ratio. The NCC is in average position in comparison.
- Greater loan loss provision is made in income statement if high loan loss is expected. This will lead to low profit and possible losses that produce low profit to shareholders but strengthen and stabilize financial position of the bank. The mean ratio of loan loss provision to total loan and advances of BOK is higher than that of others and the mean ratio of loan loss provision to total loan and advances of NCC is lower. So it is found that BOK has high expectation of loan loss and greater loan loss provision has been made but NCC has been seen safe from loan loss.

- Profitability is the best indicator of overall efficiency of any organization. BOK and NCC shows better performance regarding profitability ratio. The mean ratio of interest income to interest expenses of BOK and NCC is higher than LBL but the mean ratio of LBL is lower than that of others.
- NCC has highest mean ratio of interest income to total income .BOK and LBL are in average. So, it is found that BOK and LBL has low rate of interest offered in deposit and high rate of interest charged in loan and advances, but it has higher credit creation power and earning capacity from loan and advances than other four banks.
- Among the various measurement of profitability ratios return on equity reflects the relative measure of profitability. LBL has not better position in comparison and NCC has been seen in average. It is also found that NCC and BOK have been seen able in better utilization of resources of owners than LBL.
- BOK has lower mean ratio of total interest earned to total working fund in comparison. LBL has higher mean ratio than BOK and lower mean ratio than NCC and NBBL and NCC is in average.
- LBL has lowest mean ratio of operating profit to loan and advances, return on loan and advances and return on total working fund .BOK and NCC are in average .So it is found that LBL has not better position; it has better profitability of funds invested in banks assets. BOK has not been seen able to mobilize their assets.
- The mean ratio of non performing loan to total loan and advances of of NCC is lower than that of others. LBL and BOK have also lower mean ratio of non performing loan to total assets. So it is found that NCC has low percentage of non recovery loan.
- LBL has highest mean ratio of interest expenses to total deposit and interest expenses to total working fund. Similarly, NCC has highest mean ratio of interest expenses to total expenses ratio. So it is found that BOK is successful than LBL, and NCC .But LBL has been paying high interest against total deposit and total working fund and NCC has been paying high interest against total expenses.
- ✤ All three banks are not being able to maintain the appropriate standard of current ratio i.e. 2:1.It is the indication of unsatisfactory liquidity position. But comparatively LBL is found in better position than other banks as it has higher current ratio, cash and bank balance to total deposit ratio, cash and bank balance to

interest sensitive ratio, cash and bank balance to current assets ratio, loan and advances to current assets ratio than that of others.

- The mean ratios of BOK show low liquidity position and it also indicates that these banks have not ability to satisfy the credit needs of the community, to meet demand for deposits, to oblige maturing obligation on time without unfavorable impact on longer projections on profitability in comparison.
- Similarly, NCC is in average in comparison. As satisfactory liquidity position is one of the distinguishing characteristics of sound banking system, LBL has sound banking system.
- Among the three sample commercial banks, LBL and NCC has better efficiency to manage its assets in profitable manner. It is found that the mean ratios of total assets to total liabilities, loan and advances to total assets, loan and advances to total deposit of LBL and NCC are higher than others but BOK have lower mean ratio. The higher mean ratio of LBL and NCC indicates that it is better in mobilization of fund as loan and advances.
- Lower mean ratios of BOK show that they have not better efficiency to manage its assets in profitable manner. The mean ratios of LBL and NCC are in average in comparison.
- The mean ratio of priority sector credit to total credit of LBL is higher than that of others. But BOK has lower mean ratio. The performance of NCC and BOK is far below than that of LBL. So, BOK and NCC should try to mobilize or invest its fund in priority sector.
- The mean ratio of deprived sector credit to total credit of LBL is higher than that of others but the performance of NCC is far below than that of LBL and the mean ratio of BOK is nearly equal to LBL
- The mean ratio of private sector credit to total credit of NCC is higher than LBL shows that NCC has higher intensity to invest in private sector. Similarly LBL has been seen higher intensity to invest in government sector bas it has higher mean ratio of government sector credit to total credit than the NCC. Similarly, NCC has invested 80.4% of its total credit in private sector, 9.77% in priority sector, 1.83% in derived sector and 0.39% in government sector. LBL invest 83.64% of its total

credit in private sector, 11.76% in priority sector, 2.396 % in deprived sector and 3.772% in government sector.

- ✤ So it is found that NCC is successful to maintain the economic and financial position in better way as it has better growth rate of deposit and loan and advances.
- The degree of relationship between loan loss provision and loan and advances and the degree of relationship between interest income and bet profit of BOK and NCC are significant as they have +ve r value and the values are greater than 6\* PE<sub>r</sub> but LBL has imperfect relationship between these variables.
- The degree of relationship between total deposit and loan and advances of LBL NCC is significant. all banks have positive r value .Being lower r value than 6\* PE r, BOK has not significant relationship between total deposit and loan and advances.
- The degree of relationship between total investment and loan and advances and the degree of relationship between total income and loan and advances of NCC is significant because Karl Pearson's coefficient of correlation value of both bank are highly positive and greater than 6\* PR r .Similarly, the degree of relationship between these variables of LBL, and BOK are not perfectly correlated. BOK has negative value which shows imperfect relationship between these variables.

# CHAPTER-FIVE SUMMARY, CONCLUSION AND RECOMMENDATIONS

This is the concluding chapter of this study. This chapter is divided into three sections: Summary, Conclusions and Recommendations. In this chapter summary of the study is This chapter is a complete conclusive and suggestive package which contains summary, conclusion of the findings and actionable plans i.e. suggestion for further improvement. This would be meaningful to the commercial bank in credit management. Summary gives the brief introduction to all the chapters of the study and shows the actual facts of the present situation under the topic of the study. Conclusion of the findings is based on the consequences of the analysis of the relevant data by using financial as well as statistical tools. The recommendations are presented in term of suggestion, which are prepared on the basis of findings and conclusion.

## 5.1 Summary

Overall national development of any country depends upon the economic development of that country and economic development largely depends upon the financial infrastructure of that country. Therefore, the primary goal of any nation including Nepal is rapid economic development to promote the welfare of the people and the nation as well. Nepal being one of the least developed countries has been trying to embark upon the path of economic development by economic growth rate and developing all sectors of economy. Financial institution includes banks, finance companies, co-operative organizations and insurance companies. All of them do contribute something to the economy of the country. Financial institutions play a vital role in the proper functioning of an economy. Among them, banking sector plays an important role in the economic development of the country. Finance companies are one of the vital aspects of this sector, which deals in the process of channel zing the available resources in the needed sectors. It is the intermediary between the deficit and surpluses of financial resource.

Every financial institution collects funds from different sources and mobilizes it into the different sectors, which is always surrounded with risk. Credit risk is one part of that risk. Credit risk is the potential financial loss resulting from the failure of customer to pay their debt in time. As in order from, credit risk is crucial part of risk arises among in the banking industry. The study had been carried based on commercial bank i.e. Investment Bank Limited for credit risk management. To achieve the objectives of the study, descriptive an analytical research design has been used. Some statistical and financial tools have also been applied to examine facts and descriptive techniques have been adopted to evaluate credit risk of Bank of Kathmandu, Nepal Credit and Commerce Bank and Laxmi Bank. The study is based on secondary data. So the descriptive and analytical research designs have been used. In this study only two finances companies have been taken as

sample. All the finance companies in Nepal are the population of the study. The samples taken are Bank of Kathmandu, Nepal Credit and Commerce Bank and Laxmi Bank.

The research is based on secondary source of data. The data relating to the investment, deposit, loan and advances, assets and profit are directly obtained from the balance sheet and Profit and Loss A/C of the concerned companies annual reports. Supplementary data and information are collected from number of institution and authoritative sources like Nepal Rastra Bank, Security Exchange Board, Nepal Stock Exchange Ltd., Ministry of Finance, Budget speech of different fiscal years, economic survey and National Planning Commission etc. To achieve the objectives of the study various financial and statistical tools have been used. After collecting the data from the different sources, it is analyzed by using financial tools and statistical tools.

Credit Management belongs to the broad subject of Accountancy which deals with inspection and administration of the credit records and payments of the customers, clients. Credit Management answers the clients' questions regarding their credit and payment history and credit and payment processes. The management organizes the internal movements of the flow of credits and payments as well as reconciliations regarding conflicting schedules, conflicting payments, and promissory notes while at the same time maintaining the good relationship with good clients. On the other hand, bad debtors are handled with due process. Legal actions are filed against them should they fail to comply with the payments or should they refuse to pay their debts.

On the part of the debtors, they should be well aware of the schedule of payments so as not to be subjected to legal matters. Most credits, before being granted, need to leave a guarantee that they can be paid. Thus, collaterals come into picture. They pose as securities to ensure creditors that the loans they give to debtors are either going to be paid according to the stipulated schedule or else, they have the authority to claim the securities as payment for their debts.

Credit Management, from a debtor's point of view, is managing finances especially debts so as not to have a tail of creditors lurking behind your back. Credit management is a responsibility that both the debtor and the creditor should seriously take.

## 5.1 Conclusion

From the analysis, it is found that the liquidity position of LBL is better than that of others but BOK has low liquidity position. It shows LBL has made enough cash and bank balance and it can pay liabilities to its depositors and it has ability to satisfy credit needs of community but from the profit making point of view, holding higher level of amount is also not good for any bank and holding low level of amount creates negative impact on the goodwill and reputation of the bank. So, all these banks should try to maintain their liquidity position as standard.

- On the basis of profitability ratio, it has been concluded that the profitability position of BOK and NCC is comparatively better than that of others. BOK and NCC is able to charge high interest rate but it has low rate of interest offered in deposit. So it can conclude that BOK and NCC has better profitability of funds invested in banks assets and has been seen able to mobilize its assets and able to utilize of resources of owners but LBL has not better profitability position.
- On the basis of assets management ratio, it has been concluded that NBBL has better position than that of others. It has high total assets to total liabilities ratio, loan and advances to total assets ratio and loan and advances to total deposit ratio. The mean ratios of BOK show their weakness in assets management but they have high ratio of totals investment to total deposit, investment to loan and advances and investment. In conclusion, it can be said that LBL and NCC are able to manage its assets in comparison of BOK and NCC.
- On the basis of growth ratio, in conclusion it can be said that NCC is successful to maintain the economic and financial position in better way as it has better growth ratio of deposit and loan and advances. BOK has higher mean ratio of deposit mobilization and credit mobilization per branch.
- In credit portfolio, LBL has made more investment in priority, deprived and government sector and NCC has made more investment in private sector. In the area of privatization, all these banks have shown good performance but this should increase in the coming future. But the investment made by these banks in priority and deprived sector is below the minimum requirements stipulated by NRB directives. In conclusion, it can be said that BOK should try to mobilize its fund in these sector.
- On the basis of activity ratio, it has been concluded that BOK has been made greater loan loss provision, but NCC is felling sage from loan loss than others. Similarly, NCC has low percentage of it. So these banks should try to adopt sound credit collection policy which helps to control loan loss and decreases non performing loan. If they do not so, it will causes great losses. It can also conclude that BOK is successful in collecting the fund in cheapest possible price but LBL has been paying high interest against total deposit and total working fund and NCC has been paying high interest against total expenses.

## 5.2 Recommendations

- Operating income level of these banks does not seem satisfactory. So these banks should increase their operations and efficiency by mobilizing their resources in profit generating sector. By using modern technology, computer network experts and well trained personnel, these banks should control operating expenses
- In practice, the JVBs are urban based, serve quite, a few elite, and affluent, big customers and heavily depended on fee based activities. To meet social responsibilities it is recommended to these banks should promote and mobilize the funds in rural areas. In this study it its found that the commercial banks are hesitated to invest in rural areas because of the reason of risk but it is very important to invest and to mobilize its fund in rural areas to eliminate poverty and to develop economy.
- All commercial banks should have greater efficiency to utilize of funds provided by outsiders .Depositors money has mainly tied up in loans. The largest amount of the bank in the assets side is loan and advances. Negligence in administering these assets could be the main cause of a liquidity crisis in the bank. All three banks are strongly recommended to follow liberal lending policy and invest more and more amount of total deposit in loan and advances.
- Increase in loan loss provision decreases the profit result. If high loan loss is expected, greater loan loss provision is made in income statement and this will lead to low profit and possible losses .If loan are not distributed properly and cautiously then it may be main cause of the failure of the banks. From this study it is found that BOK has high expectation of loan loss so it has been made greater loan loss provision. So these banks are recommended to adopt sound credit collection policy. It helps them to decrease loan loss provision and non performing loan. So these banks must be careful in strengthen credit collection policy.
- The development of competition reduces the non fund based income along with shore in credit market for traditional areas of lending. So these banks are recommended to innovate with new areas of lending and also more to rural sector in search of new lending area.
- The main focus of commercial banks in to be enough profit. The management of the firm is interested in operating efficiently of the firm's profitability ratios but commercial banks should be careful in increasing profit in a real sense to maintain the confidence of shareholders, depositors and its customer's .Comparatively, The profitability position of NCC is better than that of others .So, banks are

recommended to utilize its risky assets and shareholders fund to gain high profit margin.

- In commercial banks the liquidity position affects external and internal facts such as the prevailing interest rate, supply and demand position of loans, central banks requirement and the growth position of financial market .In this study it has been seen that all five banks are not able to maintain the appropriate standard of current ratio but comparatively LBL has better liquidity position but BOK have unsatisfactory liquidity position. So, these banks are recommended to increase cash and bank balance to satisfy the credit needs of community. They are also suggested to keep the reasonable amount of liquidity to maintain their short term solvency.
- Strictly followed NRB directives, helps to reduce credit risk arising from borrowers' defaulter, lack of proper credit appraisal, defaulter by black listed borrowers and professional defaulters. Government has established credit information beuro which will provide suggestion to commercial banks. So these banks are recommended to follow NRB directives.
- Looking at the current trend of banking business these banks must be very much careful on formulating marketing strategy to serve it s customer. The marketing strategy should be innovative that would attract and retain the customer. So these banks are recommended to develop an innovative approach to bank marketing for its well being and sustainability in the market.

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# **APPENDIX-I**

# From capital and liabilities of Balance Sheet

a) Paid up	Capital	(Rs	s. in million)		
Banks	2007/08	2008/09	2009/10	2010/11	2011/12
LBL	119.95	143.94	424.89	425.16	689.3
BOK	300.00	390.00	429.00		
NCC	118.42	220.86	399.32	455	755

### h) Reserves

b) Reserves (Rs. in m						
Banks	2007/08	2008/09	2009/10	2010/11	2011/12	
LBL	94.61	135.45	144.7	199.76	219.2	
BOK	420.59	468.11	634.13	787.92	898.24	
NCC	98.54	131.59	157.83	225.33	172	

# c) Shareholder's Equity

-,		(	- )		
Banks	2007/08	2008/09	2009/10	2010/11	2011/12
LBL	238.55	560.34	569.86	626.64	598.2
BOK	720.59	858.11	1063.13	1324.17	1541.74
NCC	319.4	390.91	472.83	540.33	506.6

# d) Current Deposit

	posit		n minion)		
Banks	2007/08	2008/09	2009/10	2010/11	2011/12
LBL	2359.99	1086.70	1300.07	1672.68	1774.1
BOK	2252.13	2634.37	3503.14	4145.45	5045.16
NCC	470.07	481.92	562.39	719.76	1025.2

e) Saving De	eposit	(Rs. in	n million)		
Banks	2007/08	2008/09	2009/10	2010/11	2011/12
LBL	1060.15	1274.69	1633.03	2043.02	2458.80
BOK	9144.47	9163.95	10870.54	11759.60	12852.41
NCC	1384.06	1735.37	2757.95	3730.61	4806.9

## f Fixed Deposit

f. Fixed Dep	osit	(Rs. in	million)		
Banks	2007/08	2008/09	2009/10	2010/11	2011/12
LBL	2929.35	3132.68	3337.57	3352.27	4086.35
BOK	4927.37	5480.84	3205.37	4710.18	6107.43
NCC	2284.64	2711.58	2794.74	2897.96	3444.5

# g) Total Deposit

# (Rs. in million)

# (**Rs. in million**)

# (Rs. in million)

Banks	2007/08	2008/09	2009/10	2010/11	2011/12
LBL	6612.29	5572.47	6522.92	7198.32	8645.8
BOK	17532.40	18619.37	21007.37	22010.34	24814.01
NCC	4574.51	5466.61	6694.95	8063.90	10097.8

# h) Total Liabilities

h) Total Lia	bilities	( <b>Rs.</b> i	in million)		
Banks	2007/08	2008/09	2009/10	2010/11	2011/12
LBL	7046.25	6460.79	6996.48	7813.76	9656.35
BOK	18779.98	19814.32	22292.09	23437.81	26519.91
NCC	4883.18	6216.27	7579.37	9068.24	10897.5

# i) Current Liabilities

i) Current Liabilities (Rs. in mi					in million)
Banks	2007/08	2008/09	2009/10	2010/11	2011/12
LBL	7043.64	6459.41	6992.43	7808.29	9186.72
BOK	18747.46	19433.25	21899.93	23030.89	26502.71
NCC	4874.79	6063.87	7420.73	8928.24	10665.6

# j) Non Performing Loan

j) Non Perfo	rming Loan	( <b>Rs. i</b> 1	n million)		
Banks	2007/08	2008/09	2009/10	2010/11	2011/12
LBL	483.39	289.77	426.94	345.82	441.01
BOK		797.61	1092.75	1147.47	1001.34
NCC	118.02	42.38	111.19	21.29	128.81

# k) Loan Loss Provision

(Rs. in million)

Banks	2007/08	2008/09	2009/10	2010/11	2011/12
LBL	242.84	285.14	327.11	388.17	525.46
BOK		643.41	842.75	967.76	1026.64
NCC	62.79	95.75	141.12	211.71	281.41

# **APPENDIX-II**

# From Assets side of Balance Sheet

a) Cash and Bank Balance				(Rs. in million)		
	2007/08	2008/09	2009/10	2010/11	2011/12	
Banks						
LBL	1945.14	1619.96	1333.54	864.42	723.74	
BOK	1435.18	1264.67	1979.21	11951.87	12424.52	
NCC	834.99	592.76	1139.57	631.81	1054.2	

b) Liquid Fund (Rs. in millio					n million)	
Banks	2007/08	2008/09	2009/10	2010/11	2011/12	
LBL	2348.2	1403.2	1331.6	775	459.6	
BOK	7192.6	7658.8	8281.7	8613.5	8173.2	
NCC	824.1	809.2	1156.1	869.7	1624.2	
c) Current A	Assets	Assets (Rs. in million				
Banks	2007/08	2008/09	2009/10	2010/11	2011/12	
LBL	7166.11	6787.45	7404.57	8345.34	10259.39	
BOK	17359.42	14165.33	16881.45	18495.86	21326.26	
NCC	5049.85	6359.66	7836.89	9399.95	12088.4	
d) Investme	nt			(Rs. in	n million)	
Banks	2007/08	2008/09	2009/10	2010/11	2011/12	
LBL	373.63	599.06	1207.28	1907.52	2607.7	
BOK	4083.16	9157.11	10175.44	9292.11	11692.34	
NCC	901.72	1657.87	1653.97	2535.65	2119.7	

e) Total Ass	ets			(Rs. in	million)
Banks	2007/08	2008/09	2009/10	2010/11	2011/12
LBL	7284.79	7021.14	7566.33	8440.40	10345.37
BOK	19500.58	20672.45	23355.23	24762.04	27844.69
NCC	5202.58	6607.18	8052.20	9608.56	12241.5
f) Loan and	Advances			(Rs. in	million)
Banks	2007/08	2009/00	2000/10	2010/11	2011/12
	2007/08	2008/09	2009/10	2010/11	2011/12
LBL	4188.41	4299.25	4468.72	5143.66	6619
LBL BOK	4188.41 9015.35	4299.25 8913.73	4468.72 10001.85	2010/11 5143.66 11951.87	2011/12       6619       12424.52

# **APPENDIX-III**

# From profit and loss Account

a) Total Expenses (Rs. in million					n million)
Banks	2007/08	2008/09	2009/10	2010/11	2011/12
LBL	454.9	451.5	496.84	502.07	493.5
BOK	1140.23	1040.75	1094.28	1099.05	1238.13
NCC	362.46	413.55	499.45	573.94	600.4
b) Interest <b>E</b>	Expenses			( <b>Rs.</b>	in million)
Banks	2007/08	2008/09	2009/10	2010/11	2011/12
LBL	271.79	288.58	291.82	255.92	254.2
BOK	732.69	578.13	554.13	491.54	561.96
NCC	236.14	257.05	306.41	314.44	299.5

### c) Total income

-,	-			<b>(</b>	- /
Banks	2007/08	2008/09	2009/10	2010/11	2011/12
LBL	505.23	508.38	565.89	611.61	636.21
BOK	1572.92	1387.34	1443.54	1516.32	1757.8
NCC	464.12	539.78	634.08	783.19	846.64

# d) Total Interest Income

d) Total Inte	erest Income	( <b>Rs. i</b> )	n million)		
Banks	2007/08	2008/09	2009/10	2010/11	2011/12
LBL	444.56	399.63	469.74	493.60	518.2
BOK	1326.38	1149.00	1201.23	1245.89	1446.46
NCC	385.02	443.82	520.17	657.25	720.7

## e) Operating Profit

e) Operating	g Profit	( <b>Rs. i</b> )	n million)		
Banks	2007/08	2008/09	2009/10	2010/11	2011/12
LBL	50.33	56.88	69.05	109.54	142.71
BOK	432.69	346.59	349.26	417.27	519.74
NCC	100.66	126.23	134.63	209.25	246.24

# f) Net profit

### (**Rs. in million**)

Banks	2007/08	2008/09	2009/10	2010/11	2011/12
LBL	12.51	40.85	48.75	60.86	57.38
BOK	280.69	235.02	212.12	263.05	752.4
NCC	69.70	85.33	94.17	143.57	275.8

# **APPENDIX-IV**

# **Credit and Advances Portfolio Classification**

# (**Rs. in million**)

Sector wise o	classification	(Rs. in million)			
Sector	2007/08	2008/09	2009/10	2010/11	2011/12
Government	-	-	60	69.2	-
Private	2963.7	3939.6	4970.9	6047.4	7914
Priority	343.7	428.5	550.618	619.946	718.601
Deprived	-	101.7	131.019	172.852	225.124
Other	201.3	62.3	263.1	378.9	662.2

Sector wise of	classification	(Rs. in million)			
Sector	2007/08	2008/09	2009/10	2010/11	2011/12
Government	88.3	87.4	50.0	72.9	43.0
Private	4002.7	4441.2	4711.2	5418.0	6576.0
Priority	426.2	512.3	797.1	1033.3	831.3
Deprived	65.9	89.4	172.1	212.4	212.5
Other	91.7	-	14.4	56.1	142.0

Credit to pr	iority and dep	( <b>Rs</b> .	in million)		
Sector	2007/08 2008/09 2009/10 2				2011/12
Deprived	2.67	2.16	2.42	2.88	2.95
Priority	7.71	8.75	4.82	3.77	5.69

# **APPENDIX-V**

# **Calculation of Correlation Coefficient**

Correlation coefficient between deposit and loan and advances of LDL									
Year	2007/08	2008/09	2009/10	2010/11	2011/12				
Total Deposit	6612.29	5572.47	6522.92	7198.32	8645.8				
Loan and advances	4188.41	4299.25	4468.72	5143.66	6619.0				
r					0.8192				
P.E <sub>r</sub>					0.09921				

# Correlation coefficient between deposit and loan and advances of LBL

# Correlation coefficient between deposit and loan and advances of BOK

Year	2007/08	2008/09	2009/10	2010/11	2011/12
Total Deposit	17532.40	18619.37	21007.37	22010.34	24814.01
Loan and advances	9015.35	8913.73	10001.85	11951.87	12424.52
r					0.7125

P.E <sub>r</sub> 0.1489				
	P.E <sub>r</sub>			0.1489

# Correlation coefficient between deposit and loan and advances of NCC

Year	2007/08	2008/09	2009/10	2010/11	2011/12
Total Deposit	4574.51	5466.61	6694.95	8063.90	10097.8
Loan and advances	3005.76	3948.48	4908.46	5884.12	7914.00
r					0.9978
P.E <sub>r</sub>					0.001326

# Correlation coefficient between Total Investment and loan and advances of LBL

Year	2007/08	2008/09	2009/10	2010/11	2011/12
Total Investment	373.63	599.06	1207.28	1907.52	2607.7
Loan and	4188.41	4299.25	4468.72	5143.66	6619.0
Advances					
r					0.7417
P.E <sub>r</sub>					0.2017

# Correlation coefficient between Total Investment and loan and advances of BOK

Year	2007/08	2008/09	2009/10	2010/11	2011/12
Total Investment	4083.16	9157.11	10175.44	9292.11	11692.34
Loan and	9015.35	8913.73	10001.85	11951.87	12424.52
Advances					
r					0.7214
P.E <sub>r</sub>					0.1450

# Correlation coefficient between Total Investment and loan and advances of NCC

Year	2007/08	2008/09	2009/10	2010/11	2011/12
Total Investment	901.72	1657.87	1653.97	2535.65	2119.70
Loan and	3005.76	3948.48	4908.46	5884.12	7914.0
Advances					
r					0.9365
P.E <sub>r</sub>					0.0372

# Correlation coefficient between Total Income and loan and advances of LBL

Year		2007/08	2008/09	2009/10	2010/11	2011/12
Total Income		505.23	508.38	565.89	611.61	636.21
Loan	and	4188.41	4299.25	4468.72	5143.66	6619.00
Advances						
r						0.7582

P.E <sub>r</sub>			0.1286

# Correlation coefficient between Total Income and loan and advances of BOK

Year		2007/08	2008/09	2009/10	2010/11	2011/12
Total Income		1572.92	1387.34	1443.54	1516.32	1757.8
Loan	and	9015.35	8913.73	10001.85	11951.87	12424.52
Advances						
r						0.666
P.E <sub>r</sub>						0.1683

# Correlation coefficient between Total Income and loan and advances of NCC

Year		2007/08	2008/09	2009/10	2010/11	2011/12
Total Income		464.12	539.78	634.08	783.19	846.64
Loan	and	3005.76	3948.48	4908.46	5884.12	7914.00
Advances						
r						0.9688
P.E <sub>r</sub>						0.0186

# Correlation coefficient between Loan loss provision and loan and advances of LBL

Year		2007/08	2008/09	2009/10	2010/11	2011/12
Loan	loss	242.84	285.14	327.11	388.17	525.46
provision						
Loan	and	4188.41	4299.25	4468.72	5143.66	6619.00
Advances						
r						0.7082
P.E <sub>r</sub>						0.1507

# Correlation coefficient between Loan loss provision and loan and advances of BOK

Year		2007/08	2008/09	2009/10	2010/11	2011/12
Loan	loss		643.41	842.75	967.76	1026.64
provision						
Loan	and	9015.35	8913.73	10001.85	11951.87	12424.52
Advances						
r						0.8456

P.E <sub>r</sub>			0.0862

# Correlation coefficient between Loan loss provision and loan and advances of NCC

Year		2007/08	2008/09	2009/10	2010/11	2011/12
Loan	loss	62.79	95.75	141.12	211.71	281.41
provision						
Loan	and	3005.76	3948.48	4908.46	5884.12	7914.00
Advances						
r						0.9921
P.E <sub>r</sub>						0.0047

Correlation coefficient between Loan loss provision and loan and advances of Correlation coefficient between Interest income and net profit of LBL

Year	2007/08	2008/09	2009/10	2010/11	2011/12
Interest Income	444.56	399.63	469.74	493.60	518.20
Net profit	12.51	40.85	48.75	60.86	57.38
R					0.7161
P.E <sub>r</sub>					0.1473

# Correlation coefficient between Interest income and net profit of BOK

Year	2007/08	2008/09	2009/10	2010/11	2011/12
Interest Income	1326.38	1149.00	1201.23	1245.89	1446.46
Net profit	280.69	235.02	212.12	263.05	752.4
R					0.9277
P.E <sub>r</sub>					0.0421

# Coefficient between Interest income and net profit of NCC

Year	2007/08	2008/09	2009/10	2010/11	2011/12
Interest Income	385.02	443.82	520.17	657.25	720.70
Net profit	69.70	85.33	94.17	143.57	257.80
R					0.8873
P.E <sub>r</sub>					0.0643