CHAPTER - I

INTRODUCTION

1.1 Meaning of Credit Management

Credit management, to make it simple, refers to fund and working capital management. However, most people have some misconcepts. They only consider credit management is a short-term process. In fact, if it relates to working capital, it may be right. However, if it relates to fund management, it can be a long-term basis. You may imagine asset valuation for credit evaluation, i.e. a credit management step, refer to fixed assets usually. Value of fixed assets will change over its life. In other words, your credit evaluation will adjust all the time. Credit Management is the process of mitigating the risk involved in granting the credit. It is a key to successfully utilize our credit by minimizing our risks and losses. Credit is regarded as the most income generating assets especially in commercial banks.

Credit is regarded as the heart of the commercial banks in the sense that; it covers the main part of the investment; the most of the investment activities based on credit; it is the main factor of creating profitability. It is the main source of creating profitability: it determines the profitability. It's effect the overall economy of the country. In today context, it also affects on national economy to some extent. If the bank provides credit to retailer, it will make the customer status similarly, it provides to trade and industry, the Govt. will get tax from then and help to increase the national economy. It is the security against depositors. It is proved from very beginning that credit is the shareholders 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 of, which helps to complete the every job effectively. Credit management is also the system, which helps the manage credit effectively. In other words, credit management refers management of credit exposures are the main source of

investment in Commercial Banks and return on such investment is suppose to be main source of income.

Credit Management strongly recommends analyzing and managing the credit risks. Credit risk is defined as the possibility that the 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 interbank explores. The goal of the credit risk management is to be maximizing a bank's risk adjusted rate of return by maintaining the credit risk exposure within acceptable parameters. For most banks, loans are the largest and most obvious sources of credit risk, however, other source of credit risk exit throughout the activities of the bank, including 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 settlements 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 to broad dimensions; credit standards and credit analysis. A firm has to establish and use standards and making credit decision, develop appropriate sources of credit information and methods of credit analysis.

Definitions

Credit Management is defined as the management of the risks and costs associated with allowing customers time to pay. The use of the word credit in the context of this policy relates to the provision of goods or services for payment at a later date.

Prudent extension of credit means supplying goods and services with payment due generally on receipt of invoice. Payment periods (i.e. credit) may be offered where necessary to ensure that services remain accessible but will vary from service to service.

Balancing of financial risk means evaluating the financial risk of providing goods and services in advance of payment and the likely prospect of recovering sums due. For non-

statutory services this necessarily involves the checking of creditworthiness to inform decisions to provide services in advance of payment or, alternatively, to insist on payment first where creditworthiness is in doubt.

Efficient collection of income means encouraging people to pay on time by offering a wide variety of payment methods, including direct debit and repayment, and using cost effective collection methods, such as automated reminder letters, telephone calls and personal visits. It also means making decisions on the advancing of credit and the collection of debt in an equitable manner. A manner which considers financial status only (i.e. ability to pay) and not discriminating by age, gender, disability or ethnicity.

Customer care and client sensitivity means handling all customer enquiries with courtesy and sensitivity and meeting the needs and expectations of different client groups, including offering flexible payment options and a wide variety of payment methods.

1.2 Importance of Credit Management

Keeping your credit file as clean as possible is very important to ensure that you know exactly what you are going to be able to get in terms of interest rates, available credit and possible house payments as well. With good credit, you can find interest rates are going to be much lower and you stand the chance of being able to really work out a good deal in terms of stretching your finances even further. With bad credit you are charged much higher interest rates, as well as the amount of credit that is available to you is much lower. This makes it much harder to actually obtain a Loan and work out a satisfactory arrangement when you are trying to buy a car, a house or even apply for a credit card.

Many people do not realize just how dramatically a single bad mark on your credit can alter your ability to obtain good interest rates. The impact is even more dramatic the more negative items appear on your credit file. Someone with bad credit has a very difficult time obtaining credit of any form, including a job at times. Keeping your credit file clean is often one of the only ways to ensure that you will be able to obtain a good job, as well as qualify for the lowest interest possible in order to save money while still purchasing the things you need in life.

While it is possible to survive life with bad credit, it is much harder and purchasing a vehicle or even a home is much more expensive in the increased interest rates along that are charged with programs that offers Bad Credit Loans. If you are interested in qualifying for the lowest interest rates that are offered on vehicles, credit cards and even home mortgage rates you are going to have to maintain a good credit file with virtually no blemishes to keep those good interest rates. Negative marks on your credit file can increase your interest rates by as little as 1% additional interest and as much as 20% higher.

The increased amount of money charged to people with bad credit just in additional interest charges alone is enough to more than cover most debt payments for someone with good credit. For example, if you are purchasing a home having bad credit can cost you as much as an additional Rs 10,000 a month in mortgage payments. This is a huge difference and can often mean the difference between being able to afford to purchase a home and being forced to continue renting for many years.

Responsible credit management is very important to saving money and ensuring that you are not overpaying for items that you want. Everyone is capable of making responsible credit decisions if they are careful and select their choices carefully. For all of the wrong credit decisions you can make, there are numerous good credit decisions you can make as well which can help you to ensure you always have multiple options to choose from so you can select the best credit management option for your needs.

1.3 Introduction of Sample Organizations under Study

A. Standard Chartered Bank Nepal Limited (SCBNL)

In the history of Standard Chartered Bank, it was formed since 1969 merger between the overseas banks: the Standard Bank of British of British South Africa and the Chartered Bank of India, Australia, and China. In the initial phases most of the profit made from Hong Kong, Korea, and parts of Asia in its market.

Standard Chartered Bank Nepal Limited is a subsidiary of Standard Chartered group. It is the largest international Commercial Bank of Nepal. It was the joint venture of Standard Chartered Group who has 75% ownership in the company with 25% shares owned by the Nepalese public and operated since 1989 with initial paid up capital 100 million.
Standard Chartered Bank Limited is in a position to serve its customers through a large domestic network. It was firstly launched and implemented "Anti money laundering policy" and applied the "Know your Customer (KYC)" procedure on all the customer accounts.

Standard Chartered Bank Nepal Limited offers a full range of banking products and services in wholesale and customer banking, catering to a wide range of customers encompassing individuals, mid-market local corporate, multinationals, large public sector companies, Govt. corporations, airlines, hotels as well as the DO segment comprising of embassy, aid agencies, NGOs and INGOs. There are 12 branches of SCBNL with head office and it has 19 ATMs.

Promoters and Shareholders

Standard Chartered Gridley's Bank, Australia	50%
Standard Chartered Gridley's Bank, UK	25%
General Public	25%

Shares	Amount (Current Year)
Authorized Capital (10,000,000 ordinary shares @ Rs. 100)	Rs. 1,000,000,000
Issued Capital (10,000,000 ordinary shares @ RS. 100)	Rs. 1,000,000,000
Paid-up Capital (9,319,664 shares @ Rs. 100)	Rs. 931,966,400

B. Nepal Arab Bank Limited (NABIL)

NABIL was the Nepal's first and major joint venture bank which commenced operations on 2nd July 1984 (29th Ashad 2041) with a Paid-up Capital of Rs. 30 million under the Company Act. Dubai Bank Ltd. (DBL) earlier it was called Nepal Arab Bank Ltd.

Operations of the bank including day-to-day operations and risk management are managed by highly qualified and experienced management team. Bank is fully equipped with modern technology which includes ATMs, credit cards by world renowned software from Infosys technologies system, Bangalore, India, and Internet Banking System and tele-banking system. The main slogan of the bank is "YOUR BANK AT YOUR SERVICE". The head office is located in Kamaladi, Kathmandu.

Today NABIL bank is in unique position in the banking industry in Nepal, as the nation's initial foreign joint venture partner with 50% equity investment. It has an unmatched 22 years of operational experiences giving it unparalleled insight into the market, risk, opportunities and customers' needs. In conjunction to this, the bank today surges ahead in meeting its missions to be the "Bank of 1st Choice" for all its stakeholders, customers, shareholders, regulators.

The shares owned by DBL were transferred to Emirates Bank International Limited (EBIL), Dubai. Later on EBIL sold its entire holding to National Bank International Ltd. Hence 50% equity shares of NABIL Bank Ltd. Are held by NBIL and out of another 50%, financial institutions has taken 20% and remaining 30% were used to general public of Nepal. There are 34 branches of NABIL (until April 2010) another going to be operated very soon in next future.

Capital Structure of NABIL Bank Limited

Share Distribution Pattern of NABIL

N.B (international) Limited, Ireland	50%
Nepalese Public	30%
Nepalese Industrial Development Corporation	6.15%
NEPAL Stock Exchange Limited	10.33%
Rastriya Beema Sansthan	9.67%

Share Capital of NABIL Bank Limited

Particulars	Amount
Authorized Capital	1,600,000,000

16,000,000 ordinary Share @ Rs. 100)	
Issued Capital (9,657,470 ordinary Shares @ Rs. 100)	965,747,000
Paid-up Capital (9,657,470 ordinary Shares @ Rs. 100)	965,747,000

C. Nepal Investment Bank Limited (NIBL)

Nepal Investment Bank Limited (NIBL) is one of the leading banks of Nepal. It was established in 1986 as a joint venture between Nepalese and French partners and was previously known as Nepal Indosuez Bank Ltd. NIBL was established with the vision to bet the most preferred provider of financial services in Nepal. NIBL focuses on serving the customers and communities with the belief that success can only achieved by living our core values and ethical principles. NIBL provides a complete range of commercial banking services with 18 points of representation in different parts of the country. It also has a widespread reach across the globe with the tie up with various corresponding banks.

Share Capital and Ownership of NIBL Bank

Shareholders of NIBL

Organized Institutions	50%
Rastra Banijya Bank	15%
Rastriya Beema Sansthan	15%
General Public	20%

The shareholders structures are as follows:

PARTICULARS	AMOUNT
Authorized Capital 40,000,000 ordinary Share @ Rs. 100)	4,000,000,000
Issued Capital (24,090,977 ordinary Shares @ Rs. 100)	2,409,097,700
Paid-up Capital (24,070,689 ordinary Shares @ Rs. 100)	2,407,068,900

1.4 Statement of the Problems

Credit management is the essence of commercial banking; consequently the formulation and implementation of sound credit policies are among the most important responsibilities of bank directors and management. Well conceived credit policies and careful credit practices are essential if bank is to perform its credit creation function effectively and minimize the risk inherent in any extension of credit. Credit management affects on the company's profitability and liquidity, so it is one of the crucial decisions for the commercial banks.

Basically, the banks in Nepal have been facing the following problems in credit and investment sectors. The provided loan and any investment should be secured for easy recovery not only backed by the fixed collateral securities. Because the money which have been gone out as a loan, is the money deposited in the bank, by the small and big depositors which has to be returned back to the depositors at any time or in a certain period of time. It can be assured by analyzing the borrower's loan request and proposal which is one of the main jobs in the banking.

The commercial banks are also facing the problem of over liquidity due to the lack of lending opportunities.

Commercial banks have to face tough competition due to limited and narrow capital market and investment opportunities. Even the difficult economic environment has reduced the earning capacity of many sectors in the economy, thereby affecting the overall performance of the commercial banks. The volume of nonperforming loans is rising steadily. This has resulted in constraints in the earning capacity of the banks. It has also reduced the turnover of funds in commercial banking sector thereby failing to generate more business.

1.5 Objectives of the Study

The basic objective is the comparative analysis and evaluation of the credit management of the commercial banks. The following objectives are also considered in this study:

- To assess credit practices of selected Nepalese commercial banks.

- To evaluate the performance of the management team of selected Nepalese commercial banks.
- To evaluate liquidity, activity, profitability ratios and risk ratios.
- To compare credit policy of concerned banks and discusses the fund mobilization as loan and advances of sample banks.
- To analyze relationship of loan and advance, total investments with total deposits.
- To examine the volume of non-performing loan
- To explore the adequacy of loan loss provisioning.
- To administer an efficient debt collection process that is organized such that responsibilities of departments are clearly defined and processes are well understood and documented.
- To ensure that all amounts due are collected according to the agreed payment terms and that the most efficient methods of payment are used.
- To ensure that the cost of providing goods or services on credit terms and the cost of recovery is kept to a minimum.
- To identify high risk customers, especially those likely to get into financial difficulties and to take appropriate action to safeguard further revenue income and establish satisfactory payment arrangements
- To maintain high quality and comprehensive accounts receivable information to provide robust management information and accurate customer accounts history.
- To operate within an overall framework where core working practices are consistently applied across all services and best practice adhered to.
- To achieve performance targets in the top quartile of our comparator authorities and aspire to continually improve.
- To adhere strictly to legislation, codes of conduct and professional guidelines, taking into account the Council's policies on equalities and considering diversity issues

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 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. Beside it helps to build positive attitude and perceptions non customer that helps to make the organizational successes in terms of better transaction, better turnover and better profitability most of the earlier researches were focused on financial performances 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.

The Thesis report will help the commercial banks to fill up a research gap on the study of credit management.

The suggestions made by this report will help to improve their resource mobilization in the form of credit to generate income.

Beside theses, this study no doubt will have importance to various groups but in particular it is directed towards the certain groups of individuals/institutions, which are as under:

- Has an importance to the shareholders.
- Has an importance to the management bodies of the bank for the evaluation of the performance of the bank.
- Has an importance to the outsiders which the customers, financing agencies, stock exchange etc.
- Has an importance to the government bodies or the policy makers such as the central bank.
- Has an importance to the interested outside parties such as the investors, customers, competitors, personnel of the banks, stockbrokers, dealers and market makers.

1.7 Limitation of the Study

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

Present study could not address all the aspects of credit position. The study is based on employees; self reputed response about their perception on the primary analysis. It is therefore, the response collected from the employees might not be valid measure.

Secondary analysis is based on published financial data collected from stock exchange centre and share department of concerned banks. The secondary analysis covers time span of current five years. However the study tries to find out the credit position and its importance in selected commercial banks.

This study has reviewed only concerned banks NABIL, NIBL and SCBNL. The whole study is based only on data of five-year period 2004/2005 to 2008/2009.

1.8 Organization 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. The study report is designed in five chapters which are follows.

Chapter- I Introduction

This chapter mainly deals with the Introduction part of the study. It includes the Importance of Credit management, Principles for the Management, Developing Credit Management Policy, Significance of the Study, Objectives of the Study, Limitation of the Study and Organization of the study.

Chapter – II Review of Literature

This chapter has focus on the Review of Literature which includes review of books, journals, bulletins and annual reports published by the banks and other related authorities, review of related articles and studies and previous thesis as well.

Chapter –III Research Methodology

This chapter includes the interpret parts which are research design, sources of data, analysis of data, population and sampling and tools for analysis which are ratio analysis and statistical tools.

Chapter – IV Data Presentation and Analysis

This chapter deals with the processing, analysis and interpretation of the data, the presentation and analysis of relevant though define course of research methodology with the financial and statistical analysis related to Credit and fund mobilization of banks. Major findings of the study are also included in thesis chapter.

Chapter – V Summary, Conclusion and Recommendation

This is the last chapter of the study which provides summary and conclusion, suggestions and recommendations for the improvement in the future performance of the sample banks. Finally, an extensive, bibliography and appendices are also presented at the end of the thesis work.

CHAPTER - II

REVIEW OF LITERATURE

The review of literature is a crucial aspect of planning of the study. The main purpose of literature review is to find out what works have been done in the area of the research problem under study and what has not been done in the field of the research study being undertaken .With reference to the study, Credit management in Nepalese commercial banks. This unit of the study tries to describe about the credit. Besides these this chapter highlights the literature that is available in concerned subject as to my knowledge, research work, relevant study on this topic and review of thesis work performed previously.

It is divided into two headings:

- Conceptual Review
- Review of different studies

2.1 Conceptual Review

The review of textbooks and other reference materials such as: newspaper, magazines, research articles, journals and past thesis have been included in this topic.

"Banking is the business of collecting and safeguarding money as deposits and lending of same. The banker's business is them to taken the debt of other people to offer his own in exchange and thereby 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" (Chopra, 1989). Credit administration involves the creation and management of risk assets. The process of lending takes into consideration the people and system required for the evaluation and approval of loan requests, negotiation of terms, documentation, disbursement, administration of loans and workouts, knowledge of process and awareness or its strength and weakness are important in setting objectives

and goals for lending activities and for allocating available funds to various lending functions such as commercial, installment and mortgage portfolios.

Monetary policy and Deposit mobilization of the domestic saving is one of the prime objectives of the monetary policy in Nepal. And commercial banks are the most actives financial intermediary for generating resources in the form of deposit of private sectors and providing credit to the Investor in the different sectors of the economy (Bajracharya, 1999).

A frequently neglected but an important role is 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 supplier’s offering are otherwise equally attractive. The credit policy cannot be sound unless it is based on clear knowledge of the cost of credit. The cost is determined by the quantity of all the credit sales, average collection period and the opportunity cost of capital.

Book named "Banking Management" says that in banking sector or transaction, an unavoidable of loan Management and its methodology is regarded very important. Under this management, many subject matters are considered and thought, For example, there are subject matters like the management of loan flow, the document of loan flow, loan administration, audit of loan, renewal of loan, the condition of loan flow, the provision of security, the provision of the payment of capital and its interest and other such procedures. This management plays a great role in healthy competitive activities. It is very important to be reminded that most of the banks failures in the world are due to shrinkage in the value of loan and advantage. Hence, risk of non-payment of loan is known as credit risk or default risk.

Portfolio management helps to minimize or manage the credit risk by the spreading over the risk to various portfolios. Theses method of managing credit risk is guided by the saying do not put all the eggs in a single basket.

2.1.1 Concept of Commercial Banks

Financial intermediaries play significant role for the development of national economy. They influence savings and surpluses considerably, which results investments. Financial intermediaries collect financial resources and supply them to the productive sectors that boosts the trade and industry and at last development of the country's economy.

Commercial banks are also financial intermediaries they mediate people who save money and who want to secure the use of money by accepting the deposits, borrowing funds and advancing loans. In addition to these primary functions, commercial banks, collect checks and bills, open letter of the credit, guarantee on behalf of customers, undertake capital and other many activities, exchange foreign currencies etc.

A commercial bank is one which exchanges money, deposits money, accept deposits, grants loan and performs commercial banking functions and which is not a bank meant for co-operative, agriculture industries or for such specific purpose (Nepal Commercial Bank Act, 2031: 1).

Commercial Banks are heart of financial system they hold the deposits of many person, government establishment business unit. They make fund available through their lending and investing activities to borrowers, individuals, business firms and services for the producers to customers and the financial activities of the government. They provide the large portion of the medium of exchange and they are media through which monetary policy is affected. These facts show that the commercial banking system of nation is important to the functioning of the economy (Weston and Bringham, 2003).

In the context of Nepal, commercial banks are operated under "Commercial Bank Act 2031 B.S.", In addition to Commercial Bank Act, Nepal Rastra Bank also lays down other many directives.

2.1.2 Functions of Commercial Bank

Regarding the function of commercial banks, a Commercial Bank Act state that a commercial bank is one that exchanges money, accept deposits, grants loans, and performs commercial banking functions. The functions and services of modern commercial banks are classified under the following headings;

(i) Accepting Deposits

A commercial bank accepts deposits from customers in the forms of current, saving and fixed deposits. These deposits are repayable on demand. The depositors other than current A/c are paid interest.

(ii) Granting Loans and Deposits

The second main function of the commercial bank is to grant loans and advances to businessman, the industrialist, the individuals, the different organizations etc. in the forms of term loans, cash credit, overdraft, trust receipts, hire purchase loans etc. Banks charge interest on such loan and advances, which is the largest source of total income.

(iii) Agency Service

A modern commercial banks act as an agent of individual customers, business institutions and different organization. The agency services of banks may involve collection of interest and dividends on debt and share capital. A bank buys and sells securities on behalf of the customers. Bank also collects cheques, drafts promissory notes etc and receives their payments. Sometimes, it makes payments of insurance premium, bills of electricity, telephone etc. It takes commission for the services rendered.

(iv) Guarantee on Behalf of Customers

The need of bank guarantee arises in business. Generally, business customers enjoy this service. Sometimes, personal customers may also need a bank guarantee. A guarantee is a definite and irrevocable undertaking by a bank on behalf of its customers to make payments up to a specified sum of money to the beneficiary on demand incase of default by its customers.

(v) Issuance of Traveler's Cheque

The people traveling outside the country want to reduce the fear of getting money stolen during the travel. Bank sells the traveler's cheque. The unique feature of the traveler's cheque is that unless the purchaser of traveler's cheque signs for encashment it cannot be encashed.

(vi) Letter of Credit Facility

A letter from a bank guaranteeing that a buyer's payment to a seller will be received on time and for the correct amount is called a letter of credit. Today letter of credit has become very popular in foreign business. The letter of credit is established /opened by the bank on the request of the customers.

(vii) Remittance Function

Sending and receiving fund to /from various places is the necessity of today. The remittance service of bank has benefited both business and personal customers. Funds transfers are made through various modes like demand drafts, telegraphic payment order, swift, fax and mail payment orders.

(viii) Other Services

Modern commercial banks are equally important in undertaking safe custody of important valuable and documents. Banks also offer some of the bank services at the door of highly valued customers. Few large banks conduct research and survey in the economic conditions and they supply trade statistics and information. In addition to these, banks also inform their customers about the credit standing of other particles.

2.1.3 Concept of Joint Venture Bank

A Joint Venture Bank is joining of forces between two or more enterprises for the purchase of carrying out a specific operation i.e. industrial and commercial investment production or trade (Gupta, 1984: 15).

The joint venture is common variant for expansion. "A joint venture business involves in equity arrangement between two or more independent enterprises which results in the creation of new organization entity"(Weston and Bringham, 2003). This thought identified the joint venture as a mutual understanding among two or more firms then bringing a new enterprise in existence. Basically they are constant about the ownership of new firms. In what proportion they are going to contribute ownership is also decided mutually.

Firms within a country as well as operating in different countries may participate in a venture that happens to be more common firm's indifferent countries. The foreign joint venture banks with full-fledged banking functions in Nepal are formed under the 2031 B.S. Joint Venture Bank have been established for trading to achieve mutual exchanges of goods and services, for sharing comparative advantages by performing joint investment schemes between Nepalese investors, financial and non-financial institutions as well as private investors and their parent banks. The parent banks that have experience in highly mechanized and efficient modern banking services in the many part of the world have come to Nepal with superior technology, advanced management skills and international network of banking.

The existence of foreign joint venture banks has presented an environment of healthy competition among the existing commercial banks. The increased competition has led to improve their quality and has caused an extension of services by simplifying procedures and training.

The concept of joint venture banks is a new innovation in finance and it is at a growing stage, mostly in developing countries.

HMG's deliberate policy of allowing foreign JVB's to operate in Nepal is basically targeted to encourage local traditionally run commercial banks to enhance their balanceable capacity through competition efficiency, modernization via computerization and prompt customer service (Shrestha, 2041: 44).

Joint venture banks in Nepal are expected to be the medium of economic development and uplift the community under the guidance, operate under the supervision, controlling and direction of Nepal Rastra Bank. Nepal Arab Bank Limited was the first joint venture bank of Nepal, established in 29th Ashar 2041 B.S.

2.1.4 Role and Functions of Joint Venture Banks

With the entry of foreign joint venture banks with foreign collaboration advanced managerial skills, international network, personalized manpower, and modern computerized technology have created serious challenges to the existence of the traditionally running inefficient domestic state owned banks. JVB's are able to provide quality-banking service at the cheaper costs. At same time, JVB's create the opportunity and environment to the domestic banks to improve their style of doing business by modernizing themselves and sharpening the internal strength.

The JVBs have already been providing a dynamic and vital role for the development of the efficient financial market as well as for successful mobilizing and utilizing financial resources in the country, which can be illustrated in the following headings.

Providing Advanced Banking Services

The joint venture banks are expert and efficient for practicing new methods of doing banking business like computerization, providing tele-banking facility, automatic teller machine (ATM), 24 hours banking services, any branch banking facility, premium saving account (PSA), free life insurance of account holders, and other many attractive facilities.

International Management Network

The top level-management of the JVB is either from foreign country or supported by foreign parent institutions for expertise and professional services. And the management is able to formulate policy and strategy according to Nepalese economic climate with the participation of native promoters. Such management system can be a model example to the domestic banks that are operating traditionally.

Creation of Healthy Competition in the Banking Industry

In the post liberalization period the introduction of the JVB's has ended the monopoly of the two domestic banks namely NBL and RBB and brought satisfactory fair competition in the banking business, which results the competitive advantages to customers. Efficiency of the financial market is the backbone of the economy. The advent of the JVB's has contributed much to the direction of domestic saving as well as to the efficiency of funds flow into the economy which surely would not have been possible through the government's conservative and restricting free competition policy.

Advantage of Foreign Investment

The JVBs play a remarkable role in making available foreign financial resources for the investment. They act as mediators between foreign investors and native investors and promoters. That will help for the promotion of the trade and commerce in the country.

Recently, the JVB's are being criticized, as they only want to operate in urban and suburban areas rather than to rural ones driven by profit motive. However the JVB's have been contributing much in the direction of the development and modernization of the efficient banking system, financial system, domestic saving and creation of the employment opportunities.

2.2 Credit Concept

Transaction between two parties in which one (the creditor or lender) supplies money, goods, services, or securities in return for a promised future payment by the other (the debtor or borrower). Such transactions normally include the payment of interest to the

lender. Credit may be extended by public or private institutions to finance business activities, agricultural operations, consumer expenditures, or government projects.
Most modern credit is extended through specialized financial institutions, of which commercial banks are the oldest and most important. In present-day industrial economies, the banks are able to extend and increase the supply of credit by the creation of new deposits for their loan customers.

The lender must judge each loan he makes on the basis of the character of the borrower (his intention to repay), his capacity to repay (based on his potential for earning income), and his collateral (property pledged in case of default on the loan). The terms of credit transactions may be publicly regulated to prevent abuses by customers and lenders as well as to channel credit into particular sectors of the economy.
Credit administration involves the creation and management of risk assets. The process of lending takes into consideration about the people and system required for the evaluation and approval of loan request, negotiation of terms, documentation, disbursement, administration of outstanding loans and workouts, knowledge of the process and awareness of its strength and weakness and important in setting objectives and goals for lending activities and for allocating available funds to various lending functions such as commercial, installment and mortgage portfolios (Johnson, 1944: 132).

Credit is the amount of money lent by the creditor (bank) to the borrower (customers) either on the basis of security or without security. Sum of money lent by bank is the credit (Oxford Advance learners Dictionary, 1992: 279).

Credit and advances is an important item on the asset side of the balance sheet of a commercial bank. Bank earns interest on credit and advances, which is one of the major source of income for banks. Bank prepare credit portfolio, otherwise it will not only add bad debts but also affect profitability adversely (Varshney and Swaroop, 1994: 6).

Banks generally grants credit on four ways (Chhabra, and Taneja, 1991:4)

1. Overdraft

2. Cash credit
3. Direct credit
4. Discounting of bills

Types of Credit

1. Overdraft

An instant extension of credit from a lending institution is more precisely a draft for more than the balance in the account on which the draft is drawn. A bank may honor an overdraft, depending on the importance of the customer and on prior arrangements (if any) to cover overdrafts.

2. Cash Credit

Cash Credit is a short-term cash loan to a company. A bank provides this type of funding, but only after the required security is given to secure the loan. Once a security for repayment has been given, the business that receives the loan can continuously draw from the bank up to a certain specified amount. This type of financing is similar to a line of credit.

3. Direct Credit

i) Term Credit

Term credit is medium and long term credits which are given for purchase of assets, like land, building, machinery and equipment. The amounts of term credits are fixed primarily in relation to the total costs of the projects.

ii) Working Capital Credit

A credit is whose purpose is to finance everyday operations of a company.

iii) Priority or Deprived Sector Credit

With a view to giving freedom to commercial banks in the selection of their credit portfolio, the NRB has taken a decision to gradually phase out the priority sector-lending program.

iv) Hire Purchase Financing (Installment Credit)

Hire purchase credits are characterized by periodic repayment of Principal and interest over the maturity of credit.

v) Housing Credit (Real Estate Credit)

Commercial banks also extend housing credit to their customers who have regular income or can earn revenue from housing project itself.

vi) Project Credit

Project credit is granted to the customers as per project viability. The borrowers have to invest certain proportion to the project from their equity and the rest will be financed as project credit.

vii) Consortium Credit

Two or more institution may consent to grant credit facility to the project of which is baptized as consortium credit. It reduces the risk of project among them. Financiers bank equal (or likely) charge on the project's assets.

viii) Credit Cards and Revolving Lines of Credit

Banks are increasingly utilizing charge cards and revolving lines of credit to make unsecured consumer credit. Revolving lines credit lowers the cost of making credit since operating and processing cost are reduced.

Charge cards and credit lines tied to demand deposit accounts are the most common revolving credit agreements. It can be further divided into credit cards, automatic overdrafts lines and large credit lines.

ix) Off-Balance Sheet Transaction

In fact, bank guarantee and letter of credit refer to off balance sheet transaction of financial institution. It is also known as contingent liability. Contingent liability pinpoints the liability, which may or may not arise during the happening of certain event.

x) Bank Guarantee

It is used for the sake of the customers in favor of the other party (beneficiary) up to the approval limit. Generally, a certain percent amount is taken as margin from the customer and the customer's margin account is credited.

xi) Letter of Credit (L/C)

LC are a means by which non-payment risk in the use of commercial draft may be further reduced by substituting the credit worthiness of a bank for that of the purchaser when, because of the excessive credit risk factors both in the buyer and in his environment, the buyer bank will for a fee, guarantee payment in the form of LC.

4. Discounting of Bills

It is the main function of commercial banks. Discounting of bill means made payment of bill, which are issued by commercial banks as well as central banks, NRB, before their expiration date or matured time. Therefore, payment should be less than the total amount because of their uncertainty.

Principles of Credit Policy

The income and profit of the bank depends upon its credit procedure, credit policy and investment of its fund in different securities. The greater the credits created by the bank, the higher will the profitability. A sound lending and investment policy is not only pre-requisite for bank's profitability but also crucially significant for the promotion of commercial savings of a backward country like Nepal.

Some necessities for sound lending and investment policies which most of the banks must consider can be explained as under:

1. Principle of Liquidity

Liquidity means the whole money stock in the economy. In the case of Nepal, the money in the accounts of current, saving and fixed period and the money in margin account refers to liquidity. The liquid property means cash stock of the commercial banks the amount of short term, current account and short-term government and business security and the treasury bills.

A bank should not forget the principle of liquidity while it is following its investment policy. The commercial banks are considered to be as financial mediators. The commercial banks have liability to the deposits and they immediately should give it in time when the depositors asked. For the purpose, the banks should keep adequate liquid funds. And also they should gain the profit by utilizing the deposits as a loan and advances. If the bank can't return the deposit at the time of demand it may lose the customers and their trust. If adequate liquid fund is kept, they can return the deposit at the will of the depositors but such bank can't run for long time. In the same way, if they invest the whole deposit loan and advances, they can't give it at the time of demand by the depositors, so the commercial bank should try to move the liquidity and profit together. It is a great challenge for the managers of the banks.

The commercial bank should attract deposits because a deposit is called raw materials for the banking, without which a bank can't operate. It is important thing in which sector the amount of deposit is to be invested. The interest is not given for the amount of current account. But as it has to give payment immediately plenty of liquidity is necessary for it. From the view point of the property, loan and advances are more income generating sectors but they are less liquid able. The amount won't be recovered in the time of want. Similarly keeping more cash in a bank is very liquid able, but doesn't generate income to the bank. The quantity of liquidity is less for investment so maintenance of coordination between the property and the liquidity by keeping some parts of its own property as a liquid property to provide loan, and to invest it is the success of the commercial banks. The central banks pay attention to this reality to give direction on liquidity to the commercial banks.

2. Principle of Profitability

The objective of the commercial banks is to earn profit. The bank should follow the objective by focusing it on the sectors in which it can earn much profit. The bank should not keep its means and materials inactive. It should keep on investing the means and materials in appropriate and safe area. The banks can gain much profit from the safe and long-term investment. But there is less liquidity in such investment. It may loss the investment in the sector where profit is not gained. Where much risk is there, is much profit. But sometimes it may create a situation where the bank would face the great economic loss, by loss of the investment in such a risky sector. So profit and liquidity are two opposite principles. If bank pays its attention only on profit, the liquidity becomes less, if it pays attention to the liquidity, it can't be a long term investment and the bank doesn't get enough profit. So it should maintain a balance between these two. The profit of a bank is the interest rate and the bank charge. So the bank should always try to apply an appropriate investment policy in such sectors from which it can earn.

3. Principle of Safety

A bank should pay special attention on safety. If the invested area is not safe enough the bank may occur loss whether it is huge or small. The bank should be sensible while investing in unsafe sector for gaining much by accepting the security of low quality. To invest large loans against fewer securities by receiving commission, to invest in new places without enough care, observation and to flow the long term loan although with these various reason will make unsafe of the bank's investment. So it should invest in safe sector where the property taken as the security has the value enough towards the loss on investment. Therefore the banks should follow the principle of safety, should flow the short term loans and invest in a profitable sector. In such circumstances there will be minor possibility of loss. The secured security means the securities of the inland and foreign, company's shares, debentures and government bonds etc.

4. Principle of Diversification

The bank should not follow the policy of investment only in one or two sectors further it should invest it in the various sectors. The bank by studying and analyzing the different sectors where there is possibility of earning more through small investment should extend its investment. Investing in many sectors helps keep it in balance. Some sectors may have huge profit whereas the others may have low profit or even loss, so by embracing the diversification policy on its investment, on the basis of gold, silver, diamond, development bond, share of company, debentures, goods, import and export bills and other appropriate securities, the bank have moved head of their investment policy. The bank always gets success in their working capacity from such investment. And the bank becomes successful in its goal achievement.

5. Principle of Marketability

A bank should adopt the principle of marketability in investment policy. In a certain way, the bank moves its investment or flows loan against security. To invest the money, the bank should follow the policy of taking the security of high quality as far as possible. Are the goods taken as securities saleable or not in the market? Can the loan be recovered by selling the security or not? The bank should adopt the investment policy by much attention regarding the different aspects; however, it should study the market and evaluate the goods that have been taken as the security. The bank should not invest the money by taking such securities which are not saleable in the market and though they are sold but not fetch the reasonable price, and there is no value of such things.

6. Principle of National Interest

A bank, while it applies its investment policy should give importance to the principle of national interest; however an application of such policy will not earn much profit. Any organization, institution and individual should not forget the liability towards the society. The objective of the bank to gain profit should not go against the national interest and the bank should follow the rules and regulation as well as the policy, directions, instruction given by the Nepal Rastra Bank.

7. Principle of Price Stability

Security of the property which are taken by the bank must be durable otherwise there is the possibility of amount of bank to be sunk in future. But it can't be said that the price stability of any property will always remains the same. Yet, if the property taken as the security keeps the price stable it will be easy for the bank to recover its loan. Sometimes if the price of the securities goes high, it will be beneficial to the bank. But, there will be few possibilities that it will always go high. If there is a condition where the securities will not be sold or if it is sold and the proceeds of sale are not equal to recover the loan, the bank suffers from loss. Therefore the bank should make investment by keeping the securities that keep the price stable, should flow the investment also create such situation which keeps the bank free from the fear of losing its loan.

8. Principle of Tax immunity

As far as possible, a bank should make investment in such sectors which is entitled to the immunity. By increasing the investment to tax immunized sectors the bank can achieve its goal. The tax immunized areas likely treasury bills , national bond development bonds, etc are notable. Example, if it is invested in the priority declared sectors, facility can be achieved. Therefore, the bank should make investment in the areas where facility of tax immunity can be received.

Lending criteria or criteria of Creditworthiness

1. Character

Those mental qualities and action of debtor which impel him to pay his debts; that sense of obligation to fulfill the payment promise; sometimes summarized as "willingness to pay"

For this analysis, generally the following documents are needed:

- Memorandum and Articles of Association
- Registration certification
- Tax registration certificate(Renewed)
- Resolution to borrow
- Authorization-person authorizing to deal with the bank

- Reference of other lenders with whom the applicant has dealt in the past or Bank A/C statement of the customer.

2. Capacity

Those means and faculties which provide the funds with which payment is made; resources possessed or incoming; the “ability to pay” even well-founded credit approval may subsequently be reserved by change in the debtor’s ability to fulfill his credit promise. Changes in his employment, earning capacity or indebtedness militate against the integrity of his promise and produce an unexpected specific risk.

3. Capital

Those possessions or equities from which payment might be expected when character and capacity become lacking; that from which payment may be taken under duress, if necessary.

Capital, as viewed in the appraisal of creditworthiness, represents a residual or cushion of equities available for the payment of debt if other means of payment fail.

4. Collateral

Special forms of capital which are usually negotiable or readily represented by conveyance of claim or title; specific security offered for credibility of the credit promise. The banks commonly look to collateral in their transactions, taking securities, negotiable instruments, post-dated checks, and chattel and real estate mortgages as pledges.

5. Conditions

Those circumstances external and usually beyond the control of debtors which nevertheless affect their paying behavior.

6. Country

Those conditions of foreign and international character, reflecting cultural and political circumstances, which may further qualify creditworthiness as determined by other factors.

Steps involved in Lending

Before issuing of loan commercial banks follow up certain procedures for providing loans. In spite of several technical aids, such as ratio analysis of financial statements, cash flow statements available to the modern banker, the ability to make a correct loan decision very much depends on the shrewd and critical judgment, common sense, perceptive intelligence and discriminating sense of the lending banker. However the usual steps involved in lending are as follow:

1. Loan Application

When a customer needs loan they ask for loan procedure in the bank according to the type of loan which may be a corporate loan or a retail loan. A loan application or a proposal is made if the customer finds all the process and information is reasonable. For corporate loan, it becomes necessary to consult loan officer. Loan officer can also contact to big account holder possessing business organization and ask if they are in need of loan.

2. Initial interview with the customer ascertaining the following few criteria

- The character, capacity and integrity of the borrower.
- Prospects of his proposal- whether it will succeed or fail.
- Repayment capacity of the borrower including a consideration of the source of repayment.
- The collateral that being offered as security must be investigated as to the following:
  - Whether it is easily marketable
  - Value of the security at present
  - Whether the value is likely to be stable or it is the security such that its value fluctuates considerably and
  - In case of default in payment, it is easily transferable?

3. Credit investigation of the Customer

For credit investigation of the customer, the banker looks for:

- Past history of the account.
- Reports from other bankers and people in the same line of business in the case of new customer.
- Search of documents like memorandum of articles, registration papers, annual report available with the Registrar of Joint Stock companies.
- A visit to customer's place of business.
- Analysis of balance sheet and profit and loss account and funds flow analysis in the case of existing companies.
- In case of new companies or new projects which includes the following:
- Examination of technical feasibility.
- Whether the project is economically viable.
- The competence of the managerial personnel to successfully complete and run the project.
- Examination of the cash budgets to ensure the repayment programs.

Document that are usually required for Providing Loans through Commercial Banks

1. Personal loan

- Registered charge (mortgage) over the fixed assets.
- Demand Promissory Note
- Undertaking to repay loan and/ or personal guarantee.

2. Loans to company/ firms

- Personal guarantee of promoters/ shareholders.
- Corporate guarantee of the concerned company/ firm.
- General Letter of Hypothecation- Where stocks and/ or machinery are hypothecated and/ or in the case of Working Capital Loan.
- Registered charge (mortgage) over the fixed assets.

- Demand Promissory Note.

3. Loans against cash (account) pledge

- Deed of Pledge of Cash/ Cash equivalent.
- Demand Promissory Note.
- Personal guarantee and/ or undertaking to repay loan.

4. Loans against pledge of shares

- Deed of Pledge of Shares.
- Demand Promissory Note.
- Personal guarantee and/ or undertaking to repay loan.

5. Loan against pledge of Saving Bonds

- Deed of Pledge of Saving Bonds.
- Demand Promissory Note.
- Personal guarantee and/ or undertaking to repay loan.

6. Loan against security of authorization to deduct own or third party's account

- Deed of Authorization to Deduct Account.
- Undertaking to repay loans and/ or personal guarantee.
- Letter of Set Off.
- Demand Promissory Note.

Note: Proposed fixed assets security has to be valued by Bank's valuer before accepting such fixed assets as Bank's security.

In all the cases Credit Facility Offer Letter of the Bank has to be duly signed and returned by the client. Furthermore, required documents may vary on case to case basis.

The usual Credit Appraisal Practice

In every bank they have their investment policy. Within which, they have a strong guidelines for the staffs working in credit/investment division. To guide such staffs for maintaining discipline, the management issues internal directives called “Ten commandments”.

The Ten Commandments of Credit Policy Guide

For smooth and system running of an organization and to make honest the employees in the organization, there are good non-law rules within the system which are strictly followed by the credit personnel as known Ten Commandments:

1. You shall place a high priority on the quality of bank's credit exposure. New relationship must meet bank's credit criteria and existing portfolio should be under continuing review to improve risk position. Bank's preference is for regulating amortizing and self liquidating loans geared to borrower's ability to repay.
2. You shall constantly be mindful of bank's urgent need for earning from bank's existing and new credit exposure. Every profit opportunity should be explored and negotiation skills fully employed. Innovative employment of the bank's resources to increase return on assets must be encouraged.
3. You shall be constantly alert for profitable new business opportunities that increase the size of bank's customer base. You must not under any circumstances rest on bank's existing base of customers nor direct all bank's efforts on their behalf. Growth through enlargement of bank's base is far more attractive in the long run. In our search for new customers, the stress should be on desirable ongoing relationship rather than on marginal performers.
4. Risk dispersion is basic to sound credit principles and policies. You should be careful about large and undue concentration of credit by industry, 'one obligor' or any risk factors bearing on group of borrowers. However, bank must not diversify itself into an unwanted or unnecessary problem just for the sake of diversification.
5. You shall constantly be aware of the expenses burden in bank's credit operation. Is there a less costly means of accomplishing the bank's mission? What can be done to improve the cost efficiency of bank's credit operation? Increase in customer base must be weighed against cost in terms of expenses, time and service.
6. Lending decisions must consciously focus on optimizing the use of the bank's capital funds. The benefits so gained must be quantifiable, adequate and lasting, both for the bank and the borrower.
7. You shall use every effort to reduce and contain the size of bank's criticized loan portfolio. This is time killer and the very root of bank's losses.

8. Credit 'quality' is heavily impact by the structure of the credit. The risks of trouble along the line are increased materially as bank erodes basic protections which are designed to enable a timely and comfortable payback within the borrower's ability.
9. You shall Endeavour to improve both the bank's external and internal communications to limit unnecessary time and effort amongst the bank's customers and associates. Clear, concise and summary type communication should be emphasized and utilized where necessary.
10. You shall Endeavour to make a contribution to all matters that involve your approval, concurrence or other action. On the other hand, you shall not lend your name merely to see it in print. You shall avoid all temptations which can jeopardize or compromise the bank's risk assets.

Guidelines

Every bank and financial institution has a guidelines or a credit policy guide for appropriate use of credit system within the organization. The policy is prepared by the individual bank and financial institution based on the country's financial policy and the central bank's directives. After preparation of the policy the approval from the central bank should be taken. All the credit facilities from such banks and financial institutions have been providing on the basis of the above said policy. But the system of individual bank and financial institution is different. A credit policy guide of one bank focuses on one factor then another bank's credit policy guide focuses on the another factor. Principally, it should not have much more deviation between the organizations, which is the major issue in credit systems in Nepalese banking. If it has more deviation between the banks then the standard of credit system and appraisal, risk measurement, monitoring and controlling is also a vast different.

Credit Risk Management

1. Credit Risk Management Policy

Notwithstanding structural changes that have taken place in business line of the banks, the core business – gathering deposits and extending credit – still represents the heart of banking. Nevertheless, disintermediation halted this core business, as both deposits and

loans have lost to competing instruments, such as Certificate of Deposits, commercial Papers, Bonds, Mutual Funds etc. In addition, by separating the origination of credit from its funding and securitization presents banks with the opportunity to remove credit, liquidity and interest rate risks embedded in their balance sheets.

Credit risk is the most common cause of bank failures, causing virtually all regulatory environments to prescribe minimum standards for credit risk management. The basis of sound credit risk management is the identification of the existing and potential risks inherent in lending activities. Specific credit risk management measures typically include three kinds of policies like reduce credit risk, asset classification, and loss provisioning.

Yes, of course, liquidity risk has also the almost same degree of bank failures. Liquidity risk management lies at the heart of confidence in the banking system. The importance of liquidity transcends the individual institution, since a liquidity shortfall at a single institution can have system-wide repercussions. Banks transform the term of their liabilities to have different maturities on the asset side of the balance sheet. At the same time, banks must be able to meet their commitments (such as deposits) at the point at which they come due. The contractual inflow and outflow of funds will not necessarily be reflected in actual plans and may vary in different times. A bank may therefore, experience liquidity mismatches, making its liquidity policies and liquidity risk management in its business strategy.

The assessment of a credit risk management function should consider loans and all other extensions of credit (on and off balance sheet) to ensure that the following factors are considered:

- The level, distribution and severity of classified assets,
- The level and composition of none accruing, non performing, renegotiated, rolled over, and reduced rate assets,
- The adequacy of valuation reserves,
- Management's ability to administer and collect problem assets,
- Undue concentrations of credit,

- The adequacy and effectiveness of, and adherence to, lending policies and credit administration procedures,
- The adequacy and effectiveness of a bank's process for identifying and monitoring initial and changing levels of risk, or risk associated with approved credit exposure.

2. Credit Portfolio Management

The portfolio risk in turn comprises intrinsic risk and concentration risk. While intrinsic risk is inherent in certain type of lending like credit card etc., the portfolio risk refers to risk exposure due to disproportionate concentration of loans to specific industries, sectors, regions or types. Lenders also take on interest rate and liquidity risks. The symptoms of liquidity crisis in any bank can be traced to excessive credit risk, manifested in heavy loan losses. The credit risk of a bank's portfolio depends on two sets of factors – external and internal. The external factors are the state of the economy, natural calamities, nationwide strike, Government's policy, business cycles, sector/industry recession etc. The banks can, however, influence the adverse effects of these factors on their performance (earnings, NPA and loan losses) through safe and sound lending policies and attitude towards risk taking (diversified credit portfolio, careful credit analysis, loan syndication, consortium, etc.).Managerial philosophy, loan policy – high propensity to assume risk or granting of loans with high probability of default, loan volume – high ratio of loan to total assets, loan mix, lax procedures and unsound prevention strategies and un experienced credit officers are the internal factors influencing credit risk. Bank supervisors place considerable importance for formal policies laid down by the board of directors and diligently implemented by management. This emphasis is most critical with regard to the bank's lending function which stipulates that a bank must adopt a sound system for managing credit risk. A lending policy should contain an outline of the scope and allocation of bank's credit facilities and manner in which a credit portfolio is managed, i.e. how loans are originated, serviced, supervised and collected. A good lending policy is not overly restrictive, but allows for the presentation of loans to the board that officers believe are worthy of consideration but which do not fall within the parameters of written guidelines. Flexibility must exist to

allow for fast reaction and early adaptation to changing conditions in a banks earning assets mix and market environment.

Considering that form the basis for sound lending policies include the following:

i. Limit on Total Outstanding Loans

A limit on the total loan portfolio is usually expressed relative to deposits, capital or total assets. In setting such a limit, factors such as credit demand, the volatility of deposits and credit risks should be considered.

ii. Geographic Limits

This limit is usually a dilemma. If a bank lacks understanding of its diverse markets and does not have quality management, geographic diversification may become a reason for bad loan problems. On the other hand, the imposition of strict geographical limits can also create problems, particularly in the case of regions with narrow economies. In any case, a bank's business market should be clearly delineated and commensurate with its market knowledge, managerial and staff experience. Bank's officers should be fully aware of specific geographical limitations for lending purposes, an aspect that is particularly relevant for new banks.

iii. Credit Concentrations

A lending policy should stimulate portfolio diversification and strike a balance between maximum yield and minimum risk. Concentration limits usually refer to the maximum permitted exposure to a single client, connected group and sector of economic activities. This is especially important for small, regionally oriented or specialized banks. A lending policy should also require that all concentrations be reviewed and reported on a frequent basis.

iv. Distribution by Category

Limitations based on aggregate percentage of total loans in commercial, real estate, consumer or other credit categories are common. Policies related to such limitations should allow for deviations that are approved by the board.

v. Types of Loans

A lending policy should specify the types of loans and other credit instruments that the bank intends to offer to clients and should provide guidelines for specific loans. Decisions about types of credit instruments should be based on the expertise of lending officers, the deposit structure of the bank and anticipated credit demand. Types of credit that have resulted in an abnormal loss should be controlled by senior management or avoided completely.

vi. Maturities

A lending policy should establish the maximum maturity for each type of credit and loans should be granted with a realistic repayment schedule. Maturity scheduling should be determined in relation to the anticipated source of repayment, the purpose of the loan and the useful life of the collateral.

vii. Loan Pricing

Rates of various loan types must be sufficient to cover the costs of funds, loan supervision, administration (including general overhead) and probable losses. At the same time, they should provide the reasonable margin of profit. Rates should be periodically reviewed and adjusted to reflect changes in costs or competitive factors. Rate differentials may be deliberately maintained either to encourage some types of borrowers to seek credit elsewhere or to attract a specific type of borrower. Guidelines for other relevant procedures, such as the determination of fees on commitments or penalty interest rates are also an element of pricing policy.

viii. Lending Authority

Lending authority is often determined by the size of the bank. In smaller banks, it is typically centralized. In order to avoid delays in the lending process, larger banks tend to decentralize according to geographical area, lending products and types of customer. A lending policy should establish limits for all ending officers. If policies are clearly established and enforced, individual limitations may be somewhat higher than would normally be expected, depending on the officer's experience and tenure with the bank.

Lending limits could also be based on group authority which would allow a committee to approve larger loans. Reporting procedures and the frequency of committee meetings should be specified.

ix. Appraisal Process

A lending policy should outline where the responsibility for appraisal a lies and should define formal, standard appraisal procedures, including reference to reappraisals of renewals or extensions. Acceptable types and limits on the amount of appraisal should be outlined for each type of credit facility. Circumstances requiring appraisals by qualified independent appraisers should also be described. The ratio of the amount of the loan to the appraised value of both the project and collateral, as well as the method of valuation and differences among various types of lending instruments should be detailed. A lending policy should also contain a schedule of down payment requirements, where applicable.

x. Maximum ratio of loan amount to the market value of Pledged Securities

A lending policy should set forth margin requirements for all types of securities that are accepted as collateral. Margin requirements should be related to the marketability of securities. A lending policy should also assign responsibility and establish a timetable for periodic pricing of collateral.

xi. Recognition

A bank should recognize a loan, whether original or purchased, in its balance sheet. This should occur as soon as the bank becomes the party to the contractual provisions that apply to the loan. A bank should initially carry the loan at cost.

xii. Impairment

A bank should identify and recognize the impairment of a loan or a collectively assessed group of loans. This should be done whenever it is neither probable nor assured that a bank will be able to collect the amounts due according to the contractual terms of a loan

agreement. Impairment can be recognized by reducing the carrying amount of the loan to its estimated realizable value through an allowances or charge-off, or by attributing charges to an income statement during the period in which the impairment occurs.

xiii. Collections

A lending policy should define delinquent obligations of all types and specify the appropriate reports to be submitted to the board. These reports should include sufficient detail to allow for the determination of the risk factor, loss potential and alternative courses of action. The policy should require a follow-up collection procedure that is systematic and progressively stronger. Guidelines should be established to ensure that all accounts are presented to and reviewed by the board.

xiv. Financial Information

The safe extension of credit depends on complete and accurate information regarding every detail of the borrower's credit standing. A possible exception to this rule is the case in which a loan was originally approved with readily marketable collateral to be used as the source of repayment. A lending policy should define the financial statement requirements for business and individuals at various borrowing levels and should include appropriate guidelines for audited, non-audited, interim, cash flow and other statements. It should include external credit checks required at the time of periodic updates. If the loan maturity is longer than one year, the policy should require that the bank's officers prepare financial projections with the horizon equivalent to the loan maturity, to ensure that the loan can be repaid from cash flow. The assumptions for the projections should be clearly outlined. All requirements should be defined in such a manner that any negative credit data would clearly violate the bank's lending policy.

Finally, a lending policy should be supplemented with other written guidelines for specific departments of the bank. Written policies and procedures that are approved and enforced in various departments should be referenced in a bank's general lending policy. The absence of written policies, guidelines and procedures is a major deficiency and a sign that a board of directors is not properly executing its fiduciary responsibilities.

3. Credit Risk Evaluation

All extensions of credit must be supported by a complete analysis of the proposed credit. A comprehensive and accurate appraisal of risk in every credit exposure of the bank is mandatory. No credit proposal can be put up for approval unless there has been a complete written analysis.

Objectives

The objectives of having written documentation of an analytical nature to credit extensions are:

- To ensure a thorough analysis of all new borrowers.
- To ensure a periodic (at least, once a year) critical review of ongoing borrowing relationships including all aspects of the credit risk, overall profitability to the bank and marketing potential.
- To ensure proper and close evaluation of facility increases and/or significant modifications in existing credit arrangements.
- To facilitate and systemize the credit approval process by providing permanent signed record of approval together with the basis for the decision made.

Steps in Analysis

The credit analyst should follow at least the following five distinct and logical steps to arrive at conclusions and make appropriate recommendations with regard to a proposed credit: Source: Credit Policy Guide, NABIL Bank Ltd.,

i. Historical Analysis

The purpose of the historical analysis is to evaluate the past performance of the management of the borrowing entity. The analyst determines the major risk factors and evaluates how these risks have been mitigated in the past. It identifies the factors in the borrower's present condition and the past performance which foreshadow difficulties, or indicate likelihood of success, in the ability to repay the requested facility at a future time. The two major tools for historical analysis are financial analysis and business risk

analysis. The financial analysis is the quantitative toll and the business risk analysis is the qualitative.

ii. Forecast

Having analyzed management's past performance, the nature of the risks involved and how these were mitigated, the analyst should proceed to make a reasonable forecast of the probable future performance of the entity, whether through cash generated in the future operations or conversion of assets. The findings of the financial and business risk analysis will form the basis of forecast in light of the relevant business environment at present and during the foreseeable future. While forecasting, the analyst should highlight to what extent the inherent risks involved in the proposed lending situation are mitigated and indicates how the unmitigated risks can be covered.

iii. Pricing

Every credit facility generates some income for the bank in the form of interest earned and other fees. The funds the bank lends are generally deposited by the depositors or borrowed from other financial institutions. They, therefore have a cost. The analyst must determine the Return on Investment (ROI) of a facility to see if it meets the normal standards.

iv. Protection Against Loss

The analyst must then consider the bank's position in a distress situation. Liquidation analysis would be carried out to ascertain the bank's ability to recover the outstanding. If liquidation analysis indicates insufficient cover, the analyst may recommend increase in or additional collateral.

v. Debt Structure and Control

The analysis process should conclude with an assessment of the borrower's credit worthiness. If the analyst feels that the proposed facility may be extended, he/she should give a proposal for structuring the facility, given the borrower's assets and/or projected

cash flow, so that it gives the bank adequate protection against loss and control of the relationship.

4. Loan Loss Provisioning Policy

Classification of assets can provide a basis for determining and adequate level of provisions for possible loan losses. In determining an adequate reserve, credit history, collateral and all other significant factors that affect the collectability of the loan portfolio should be considered. These include the quality of credit policies and procedures, prior loss experiences, loan growth, quality and depth of management in the lending area, loan collection and recovery practices, changes in national and local economic and business conditions, and general economic trends. The asset value assessments should be performed systematically, consistently over time, and inconformity with objective criteria. They have to be supported by adequate documentation.

In many countries, in particular those with fragile economies, regulators have established mandatory levels of provisions that are related to asset classification. The mandatory level of provision is normally determined by certain statistics. In countries, where the legal framework for debt recovery is highly developed like USA, have demonstrated approximately 10% of sub-standard assets eventually deteriorate into loss. And, it is approximately 50% of doubtful and 100% of loss classification. In developing countries, where the legal frameworks and traditions for debt collection is less effective, provisions in the range of 20-25% of substandard assets. In Nepal, it is 25% for substandard assets, 50%for doubtful and 100% for loss assets (NRB, 2002; Greuning and Bratanovic, 1999: 155).

The level of necessary loan loss provisions necessarily includes the degree of subjectivity. Management discretion, however, should occur in accordance with established policies and procedures. The following aspects have to be included in analysis of adequacy of the overall allowance for losses:

- A survey of the bank's existing provisioning policy and the methodology used to carry it out. In particular the value attributed to collateral and its legal/operational enforceability have to be considered.
- An overview of risk grading (asset classification) procedures and the review process including the time allotted for review.
- Any current factors that are likely to cause losses associated with a bank's portfolio and that differ from the historical experience of loss. These may include changes in a bank's economic and business conditions or in its clients, external factors, or alterations of bank procedures since the last review.
- A trend analysis over a longer period of time, which serves to highlight any increases in overdue loans and the impact of such increases.
- An opinion of the adequacy of the current policy and, on the basis of the loans reviewed, extrapolation of additional provisions necessary to bring the bank's total loan-loss provisions to a level in line with International Accounting Standard (IAS).

5. Non-performing Loan Portfolio

Non-performing loans are those not generating income. Loans are normally considered to be non- performing when principal or interest on them is due and left unpaid 90 days or more (this period may vary by jurisdiction). It is an international standard. The introduction of asset classification that entails provisioning requirements is costly to the banking sector. The delinquency period for non-performing assets is therefore typically introduced at 180 days and then tightened to 90 days after a period of time.

The non-performing loan portfolio is an indication of the quality of the total portfolio and ultimately of a bank's lending decisions. Another such indicator is the bank's collection ratio.

When assessed within the context of non-performing loans, the aggregate level of provisions indicates the capacity of a bank to effectively accommodate credit risk. The analysis of a non-performing loan portfolio should cover a number of aspects, like:

Aging of past due loans, including principal and interest, by more than 30, 90, 180 and 360 days. These classifications can be broken down by type of customer and branch of economic activity to determine overall trends and whether or not all customers are affected equally.

Reasons for the deterioration of the loan portfolio quality, which can help identify possible measures that can be undertaken by the bank to reverse a given trend.

- A list of non-performing loans, including all relevant details should be assessed on a case to case basis to determine if the situation is reversible, exactly that can be done to improve repayment capacity, and whether or not work out and collection plans have been used.
- Provision level should be considered to determine the bank's capacity to withstand loan defaults.
- The impact of profit and loss account should be considered to determine exactly how the bank would be affected by the deterioration of asset quality.

6. Credit Portfolio Quality Review

A loan portfolio reflects a bank's market position and demand, its business and risk strategy and its credit extension capabilities. When feasible, the loan portfolio review should normally include a random sampling of loans so that approximately 70% of the total loan amount and 30% of the number of loans covered. It should also consider at least 75% of the total loan amount and 50% of the number of all foreign currency loans and of all loans with maturities greater than one year. Additionally, a detailed credit portfolio review should include the following:

- All loans to borrowers with aggregate exposure larger than 5% of the bank's capital
- All loans to shareholders and connected parties
- All loans for which the interest or repayment terms have been rescheduled or otherwise altered since the granting of the loan
- All loans for which cash payment of interest and/or principal is more than 30 days past due, including those for which interest has been capitalized or rolled over
- All loans classified as substandard, doubtful, or loss.

In each of these cases, a loan review should consider documentation in the borrower's file and involve a discussion of the borrower's business, near-term prospects and credit history with the responsible credit officer.

For each of the loans reviewed, a summary file should be made showing the following:

- Borrower's name and line of business
- Use of proceeds
- Date of credit granted
- Loan maturity date, amount, currency, and pricing
- Principal source of repayment
- The nature and value of collateral/security
- Total outstanding liabilities, including loan principal and interest due and all other real and contingent liabilities, in cases where the bank is absorbing the credit risk
- Delinquency or non-performance, if any
- Description of monitoring activities undertaken for the loan
- Financial information including current financial statements and other pertinent information
- Specific provisions that are required and available

When the total amount due exceeds 5% of a bank's capital, the analysis should also consider the borrower's business plans for the future and the potential consequences for debt service capacity and principal repayment.

Interbank deposits are also the most important category of assets for which a bank observes the credit risk. It may account for a significant percentage of a bank's balance sheet, particularly in countries that lack convertibility but allow their citizens and economic agents to maintain foreign currency deposits.

Interbank deposits can be treated just like any other credit risk exposures from the point of view of a credit risk management.

The transactions that incur credit exposure like off-balance sheet commitments should also be reviewed. The adequacy of credit risk analysis procedures should be made as an assessment and the supervision and administration of off-balance-sheet credit instruments, such as letter of credits and guarantees. An off-balance-sheet portfolio review should be carried out with the same principles and in a manner similar to a loan portfolio review.

A good picture of a bank's business profile and business priorities can usually be provided by an analysis of the aggregate loan portfolio and its characteristics as well as the type of credit risk that the bank is ready to take. The analysis should include the below mentioned points:

- A summary of the major loan types, including details of the number of customers, average maturity, and the average interest rate earned
- Distribution of the loan portfolio, including various perspectives on the number of loans and total amounts, for example, according to currency, short-term (less than one year) and long-term (more than one year) maturities, industrial and/or other pertinent economic sectors, state owned and private borrowers, and corporate and retail lending
- Loans with government or other guarantees
- Loans by risk classification
- Non-performing loans

For a comprehensive assessment of the portfolio of characteristics of the aggregate loan portfolio, an analyst can use various tools including to whom, what and for how long the bank has lent. This profile highlights the target customer segments that pose an acceptable risk to a bank. The figure also traces the shift of target customer profiles from public sector enterprises toward the private sector. A bank can lend out its various products in response to market demand. Changes in a bank's target customers apparently affect the distribution of its lending products. Changes in maturity structure may be

influenced by shifts in customers and lending products, as well as by a bank's risk factors and macroeconomic trends.

2.3 Review of Relevant NRB Directives

NRB issues various directives relating banking regulation and prudential norms. Among various directives issued in 2009 directive No. 2 is relating to credit classification and provisioning.

Directive Relating To Credit Classification and Provisioning (Directive No 2)

Effective F/Y 2058, Act 79 banks shall classify outstanding loan and advances on the basis of aging of principal amount into the following 4 categories.

Pass

Loans and advances whose principal amount are not past due and past due for a period up-to 3 months shall be included in this category. These are classified and defined as performing loan.

Substandard

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

Doubtful

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

Loss

All loans and advances which are past due for a period of more than 1 year as well as advances which have least possibility of recovery or considered unrecoverable and those having thin possibility of even partial recovery in future shall be included in this category.

Loans and advances falling in the category of Sub-standard, Doubtful, and Loss are classified and defined as Non-Performing Loan.

Table 2.1

Time Table of Credit Classification

Classification	For F/Y 2005/06 2062/63	For F/Y 2006/07 2063/64	For F/Y 2007/08 2064/65	For F/Y 2008/09 Onwards 2065/66
Pass	Loans not past due and past due up to 3 months.	Loans not past due and past due up to 3 months.	Loans not past due and past due up to 3 months.	Loans not past due and past due up to 3 months.
Sub-Standard	Loans & advances past due for a period of over 3 months to 1 year.	Loans & advances past due for a period of over 3 months to 1 year.	Loans & advances past due for a period of over 3 months to 9 months.	Loans & advances past due for a period of over 3 months to 6 months.
Doubtful	Loans & advances past due for a period of over 1 year to 3 years.	Loans & advances past due for a period of over 1 year to 3 years.	Loans & advances past due for a period of over 9 months to 2 year.	Loans & advances past due for a period of over 6 months to 1 year.
Loss	Loans & advances past due for a period of over 3 years.	Loans & advances past due for a period of over 3 years.	Loans & advances past due for a period of over 2 years.	Loans & advances past due for a period of over 1 years.

The respect overdue periods of pass, Sub-standard and Doubtful loans shall be considered for higher classification from the next day of date of expiry of the overdue period provided for each class.

Additional Arrangement in respect of Pass Credit

Loans and advances fully secured by gold, silver, fixed deposit receipt and HMG securities shall be included under "Pass" category. However, where collateral of fixed deposit receipt of HMG securities or NRB Bonds is placed as security against loan for other purposes, such loan has to be classified on the basis of ageing. Loans against FDRs or other banks shall also qualify for inclusion under pass credit.

Additional Arrangement in respect of "Loss" Credit

Even if the credit is not past due, loans having any or all of the following discrepancies shall be classified as “Loss”

a. No security at all or security that is not in accordance with borrower’s agreement with the bank.
b. The borrower has been declared bankrupt.
c. The borrower is absconding or cannot be found.
d. Purchase or discounted bills are not realized within 90 days from the due date.
e. The credit has not been used for the purpose originally intended.
f. Owing to non-recovery, initiation as to auctioning of the collateral has passed six months and if the recovery process is under litigation.
g. Loans provided to borrowers included in the blacklist and where the credit information Bureau blacklists the borrower.

Note: Bills purchased/Discounted are to be classified into Loss Loan where they are not realized within 90 days from due date. This is departure from the normal classification rules applicable to other credits. Accordingly, it Bills would have only two classification viz. Pass and Loss.

Additional Arrangement in respect of Term Credit

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

Loan Loss Provisioning

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

S.No.	Classification of Credit	Loan Loss Provision
1.	Pass	1%
2.	Substandard	25%
3.	Doubtful	50%
4.	Loss	100%

Loan loss provision set aside for performing credit is defined as “General Loan Loss Provision” and Loan Loss provision set aside for Non Performing loan is defined as “Specific Loan Loss provision”.

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

Additional Provisioning in case of Personal Guarantee Credits

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

Rescheduling and Restructuring of Credit

In respect of loans and advances falling under the category of Substandard, Doubtful or Loss, banks may reschedule or restructure such credits only upon receipt of a written plan of action from the borrower citing the following reason:

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

Loan Loss Provisioning in respect of Reschedule, Restructured or Swapped Credit

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

Provisioning Against Priority Sector Credit

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

S.No.	Classification of Credit	Loan Loss Provision
1.	Pass	0.25%
2.	Substandard	5%
3.	Doubtful	12%
4.	Loss	25%

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

Nepal Rastra Bank (NRB) currently issues a New directives relating banking regulation and prudential norms. According to new directives of NRB F/Y 2058, Act 79 banks shall classify the following provision.

i. The bank should only provide 60% of Fair Market value for Housing & real estate assets.
ii. Any financial institution or banks should not allowed more than 25% for real estate and not more than 40% for both real estate & housing loans.
iii. The following loan should bring up to limited time period.

Particulars	**Up to 2068 ashad**	**Up to 2069 ashad**
Real estate loan	15% of total loan	10% of total loan
Both in real estate & housing Loan	30% of total loan	25% of total loan

2.4 Review of Articles and Journals

An Overview of Nepali Banking

Although financial institutions have proliferated, the Nepali people have not yet reaped the potential gains of the government's efforts to liberalize and reform the financial sector, says a report that the World Bank released in October, 2002. There are four main reasons for this: excessive government involvement in the sector, a weak central bank, a poor banking environment, and a lack of adequate banking services for the poor (The World Bank, 2002).

Excessive Government Ownership

At the heart of virtually all the problems in the financial sector in Nepal is the overwhelming dominance of the government. It owns the largest commercial bank (RBB), is the biggest shareholder in the second largest one (NBL), and holds significant shares in virtually all the joint-venture banks (all joint venture banks are 50 percent Nepali owned with shares generally being held by Nepal Rastra Bank (NRB), NBL, RBB or the Employees Provident Fund). As in many countries, government ownership has led to poor internal governance, weak management, fragile financial health, and an unhealthy politicization of these state-owned institutions. There is thus an urgent need for the government to divest its ownership of most of these financial institutions and replace the public sector with "fit and proper" private owners and operators.

A Weak Central Bank

Poor supervision by the central bank, Nepal Rastra Bank, is in part to blame for the severe problems of the two largest commercial banks and for the general deterioration in the system. However, the central bank is in no position to adequately discharge its responsibilities. It is handicapped by a lack of autonomy, an inadequate and outdated legal framework, and an excessive number of poorly trained and unproductive staff – as well as being in need of radical restructuring. The weak and outdated legal framework is among the main sources of the central bank's ineffectiveness. Adopted in 1955, the Nepal Rastra Bank Act was designed for a central bank operating in a government controlled economy – and supervising government-owned banks – and is ill suited to the development of a complex, modern central bank and banking system. The act bestowed too little power on the central bank for effectively managing monetary policy, improving the financial infrastructure, strengthening and improving financial markets and their supervision, and facilitating the growth of the financial sector. Parliament recently approved a modern central bank law, however, while came into effect in January 2002. This new Act will largely address all of these concerns – if the Act is meaningfully enforced.

Poor Banking Environment

Outdated and inappropriate laws similarly lead to weakness throughout the Nepali financial system. Other problems also plague the banking environment, including weak corporate governance, lack of competition, the absence of a sound banking culture, and asymmetries in information.

Weak and Fragmented Legal Framework

The Commercial Banking Act (1974) has critical gaps in coverage and needs to be replaced with a new law covering all deposit taking institutions in Nepal (a new draft Banking and Financial Institutions Act is currently under consideration). Other parts of the legal framework for the financial sector also need to be strengthened or amended, including the Financial Intermediary Act (1998), Company Law, and Insolvency and

Liquidation Laws. Enforcement too needs to be strengthened. Anecdotal evidence suggests that court action against defaulters tends to be excessively delayed, and asset liquidation has rarely been successful. Without strengthened laws and proper enforcement, any intervention in the financial sector is unlikely to have a meaningful and long-lasting impact.

Another problem is the proliferation of laws and regulations applying to specific institutions rather than generalized banking functions. For example, neither of the two largest development banks is governed by the Development Banks Act; instead, both operate under their own institution-specific legislation. Such institution-specific laws and regulations have created a fragmented legal environment and, as a result, a fragmented financial system, thereby stifling competition. So at the same time that the legal framework is strengthened, it also needs to be rationalized and simplified.

Weak Corporate Governance

Corporate governance is extremely weak in Nepal. There are no clear rules of engagement between a company's management, its board, its shareholders, and other stakeholders. Aggravating this situation are weak systems, poor procedures, and information asymmetry. Accounting and auditing traditions are also weak. Many banks cannot provide financial statements, and at times the accounts that banks do provide are un-audited – even though banks and finance companies are required to be audited annually be external auditors selected at general assemblies. The three largest banks – Rastriya Banijya Bank, Nepal Bank Limited, and the Agricultural Development Bank of Nepal, accounting for almost 60 percent of commercial banking assets – do not maintain up-to-date, externally audited financial data. One of them, Rastriya Banijya Bank, has produced no externally audited accounts or annual report for around seven years. The central bank serves as a poor role model for the system that it purports to supervise and regulate; it too fails to maintain good, up-to-date, externally audited accounts.

Lack of Competition

Although Nepal's financial system has grown rapidly over the past decade, it still lacks the competitive environment critical for ensuring that financial intermediation benefits borrowers, depositors, other users of financial services, and shareholders. The lack of competition reflected the fragmentation of the system, but it also stems from the dominance of the two large (but inefficient) government-established commercial banks, which accounts for more than half the commercial banking system's assets. The result is that the Nepali people have enjoyed only marginal benefits from the liberalization of the financial sector.

Poor Banking Culture

The elements of a good banking culture are almost nonexistent in Nepal, whether among banks or among their customers. Banks find it difficult to make informed lending decisions because many of their private sector clients fail to maintain good financial information on their activities or are unwilling to reveal their true financial position. As a result, firm level data are largely unreliable, and banks are forced to reconstruct firm accounts from client estimates. Even when banks can undertake a proper financial analysis, they often extend credit on the basis of collateral rather than creditworthiness. Lenders always request primary collateral, and request secondary collateral or guarantees if needed. Nonetheless, they assess the value of the collateral only informally and do not re-evaluate it regularly.

The Credit Information Bureau maintains a blacklist of customers to whom banks cannot extend credit. The bureau, however, established jointly by the central bank and the Bankers Association, is hindered in its operations by the inability or reluctance of the two largest banks to provide it with data. The apparent lack of follow-up by these banks when a customer defaults, results in a downward spiral or poor banking behavior.

Another part of the problem lies in the implementation/enforcement of the prudential regulations. To date, only a small number of banks have established satisfactory internal guidelines.

These lending problems, which affect the largest financial institutions in Nepal, have important ramifications for the entire financial sector. The market leaders maintain high real interest rates and margin spreads to cover high operating costs and large losses, while private banks are able to earn substantial profits by hiding behind these high prices. As a result, private banks have not been forced to compete for more customers or to expand their activities outside a few main cities. They merely offer much better service at the prices set by the large banks.

Information Asymmetry and Lack of Financial Sophistication

The public has limited knowledge of the financial position of banks, creating a situation of severe moral hazard. The general public is financially unsophisticated and most people have little access to financial information. When financial institutions accounts and annual statements are disclosed, they are neither timely nor reliable – even if audited. Moreover, accounting and auditing practices in Nepal do not conform to international standards. Consider these striking illustrations of the poor public knowledge sector issues. After public announcements were made that management teams were being placed in Nepal Bank Limited, the bank's stock price doubled – despite the general knowledge that the bank had a negative net worth. Depositors also continued to place funds in both Nepal Bank Limited and Rastriya Banijya Bank after a KPMG Barents Group consultancy report disclosed their extremely poor financial health and highly negative capital base. Also implicit in these examples is the banking public's belief that, although Nepal has no deposit insurance scheme, the government will provide a safety net in the event of a banking failure.

Corruption

Given all these factors – poor supervision, a weak legal environment, poor corporate governance, lax accounting and auditing standards, and an underdeveloped banking culture – it is no surprise that corruption has been a big contributor to the poor financial health of many of the financial institutions in Nepal. Fraud, self-dealing, insider dealing, and improper evaluation of collateral have been among the reported abuses. Such actions have taken resources from the poor and given them to the rich. Stemming corruption will

require putting in place transparent systems, checks and balances at every level, and a system of continuous monitoring within and between financial institutions.

Inadequate Banking Services for the Poor

Given the large number of poor people in Nepal, it is also no surprise that the government has emphasized the social dimensions of banking. Notwithstanding this, most of the policies aimed at benefiting the poor (directed credit, branch opening policies) are too broad, and they create considerable operating disincentives within the financial system while achieving a minimal or even negative impact on their intended target audience. These policies need to be more sharply focused to minimize their negative effects and enhance their benefits for poor and rural communities. At the same time, the delivery mechanisms for development banking need to be reformed, to work through, and with, private partners wherever possible. The current system of publicly owned development banks and state-dominated micro-finance institutions has failed to produce the intended results – while creating large contingent liabilities for the government.

Dali (1997) in her article, *"The Evolution of Commercial Banking System in Nepal"*. A bank is a financial institution as it engages itself in the financial activities. It is not a small financial co-operative or a finance company but a large institution with adequate monetary resources which are mobilized to uplift the economic status of the country as well as citizens and in consideration growth of itself. Few definitions of a bank from various experts are as follows:

The banker's business is to take the debt of other people to offer his own in exchange, and thereby create money (Crowther,1998).

Institution for the keeping, lending and exchanging etc. of money (Chamber's Twentieth Century Dictionary, 1999).

A bank is an organization whose principle operations are concerned with the Accumulation of the temporarily idle money of the general public for the purpose of advancing to other for expenditure (Kent, 1998).

Koirala (1999) in his article *"A Consolidated Effort for Marketing in Commercial Banks"*. Commercial banks in Nepal still appear to be biased towards the traditional practices for the attraction of potential customers. Meeting the needs of potential customers in the 21st century with the knowledge and training of 20th century is a difficult task. Changes in the marketing strategy within a traditional working structure and system have led the banks towards increasing the non-performing loan(NPL). As every sub-system is a part of a system, a small mistake on the loan disbursement process reflects its implication on the loan recovery process. Hence, a new system in loan disbursement and a loan recovery process makes the bank more effective in its operations. In the new system, all the parties involved indecision-making process should be made responsible to their functions and they need to be penalized accordingly if they fail to promote healthy growth of the banking system.

Ghimire (2000) in his article titled *"Credit Sector Reform and NRB"*. He has tried to highlight the effects of change or amendment in NRB directives regarding loan classification and loan loss provisioning. "Although the circumstances leading to financial problem or crisis in many Nepali banks differ in many respects, what is common across most of the bank is the increased size of non-performing assets (NPAs). To resolve the problem of the losses or likely losses of this nature facing the industry, NRB has, as the central bank, amended several old directives and issued many new circulars in the recent years.

As opined by him, since majority of the loans of most of the commercial banks of the country at present falls under substandard, doubtful and even loss categories, loan loss provisioning now compared to previous arrangements would be dramatically higher. The new classification and provisioning norms are very lendable as they help to strengthen banks finally. He added that we also must remember that the old system remained in

force from 1991 to 2001, which was probably the most volatile decade of the business operation of the country. He has indicated that loan loss provisioning as a percentage of total credit of April 12, 2001 us 5.2% but as April 13 2003, it has jumped to 18.39%. If only private banks are considered, it is 2.12% of April 2001 where as it is 6.30% as of April 13 2003. The total increment in LLP is Rs. 11,328.11 million and the total increment in credits is only Rs. 7,976.70. He has also stated that tightening provisioning requirements on NPL is essential to ensure that banks remain liquid even during economic downturns.

In conclusion he has mentioned that in the recent years, NRB has worked for management and reform of the credit of the financial institution more seriously and NRB has adopted reforms aimed not just at dealing with problem banks but also at strengthening banking supervision to reduce the likelihood of future crisis. "All prudential directives of NRB in connection of Credit sector reform have been made revised on after April 2001. To adapt to such changes there can be some difficulties and for a better and harmonized reform NRB should continue to be supportive, proactive and also participative to take opinions of bankers for a change in regulation policy taking place in the future.

2.5 Interview/ Opinion Excerpts

"The state of banking and the business environment in Nepal"

Radhesh Pant, Chief Executive officer of Kumari Bank, spoke to Nepali Times.

Radesh Pant on the one hand there is congestion in the banking sector but on the other, you see that about 85 percent of Nepalese don't have access to banking. There are a lot of players, but there is a huge market yet to be penetrated. Due to instability over the past few years, the investment climate has not been good, which led to a stagnation of the private sector. That was when banks entered retail, but retail is also getting crowded, which is why the banking sector needs to move on identifying different opportunities. Banks will have to be really competitive and try to create their niche market, or they'll have to start consolidating through mergers and acquisitions in order to become a cost player. There are a lot of things we can do in the 'New Nepal' and we're looking forward

to those opportunities. But in the current situation, international and domestic investors are still apprehensive about investments in Nepal, and not much is coming in.

The first challenge for banks and for the state is to be able to attract investment in the country. Second, in banking, new products have to be introduced. The banking industry cannot sustain itself just with deposits and credits. We need expertise in investment banking, analyzing projects, raising capital, new financing techniques. We need to focus on some core sectors-hydropower, infrastructure, tourism, herbs-we need to understand and analyze the financing of those sectors. And finally, I believe that we need to play a major role in providing access to finance in rural Nepal.[16]

"It is the quality of banks that matters"

Prithvi B Pandey Chairman and Chief Executive Director of Nepal Investment Bank

The banking sector as a whole has struggled through difficult times over the past few years. Despite the political instability most commercial banks have managed to maintain positive growth trends and overcome obstacles. However, we are truly worried about the future if this situation deteriorates and investment opportunities decline. As you say, we have a scenario of excess liquidity and low demand for bankable projects in spite of low interest rates in borrowings. What worries me is the disparity in Nepali deposit rates compared with other countries and continued upward trend in inflation, which means that eventually interest rates have to climb, resulting in higher lending rate leading to further stagnancy in borrowings. Continued increase in remittance is the only positive indicator in our economy; however this could lead to further increase in money supply and contribute to further inflation.[17]

"Bigger Banking Pie"

Anil Shah-Chief Executive Officer of Bank of Kathmandu Limited

Nepali Times spoke to him about the retail financing wave that is sweeping the sector.

Anil Shah Four years ago when I talked about consumer banking as the engine of growth for banking in Nepal, people in my bank and others outside raised their eyebrows. Today,

they don't bat an eyelid and say retail banking is their area of focus. The thing is, with the proliferation of banks there has been a tremendous reduction in margins and yield in corporate banking. Prevailing uncertainties in the socio-economic condition has lead to stagnation if not a contraction of the corporate sector. The pie was staying the same, or even shrinking, and the number of players who wanted a slice was increasing. That is when we decided to look for a new pie altogether: retail financing. Look at the market today and it seems everyone has the same idea.

"Golden Days Are Gone"

Himalayan SJB Rana, Chairman of Himalayan Bank Limited, while giving interview with New Business Age.

Himalayan SJB Rana: you perhaps unwittingly omitted to mention another measure taken to reduce the NPA-that is the setting up of special judicial court or tribunal to hear the loan recovery cases. So, now before filing a case in the regular courts, the first step from the bank will be to file it with the tribunal. This law was passed after lots of follow up by us bankers. But even after the bank wins the case from the court and takes the collateral into its possession the bank may find it difficult to sell the property, as is the case even today. The buyers simply do not come forward. When they come they are very few and often they join hands and offer a very small amount. There is a sort of a buyer's market here. So, the AMC was proposed. At this moment I cannot say whether this AMC will or will not work well in Nepal. Globally, there are mixed reports, as I have heard, AMCs could not do well in Latin America while they did very well in Thailand, Philippines and Malaysia. Our central bank people have gone there (Thailand, Philippines and Malaysia) and studied how the AMCs functioned there and they are trying to model the proposed AMC of Nepal accordingly. But I think the success of AMC depends on the leadership of the AMC.

2.6 Review of Thesis

Shrestha (2001) has conducted thesis research on the topic *"A study on Non-performing Loan and Loan Loss provisioning of Commercial Bank with the special reference to Nepal Bank Ltd., NBL Bank Ltd and Standard chartered Bank Ltd."*

She has set some objectives on behalf of her study which are mentioned below:

a) To find out the proportion of Non-performing loan in the selected commercial banks.
b) To find out the factors leading to accumulation of Non-performing loan in commercial banks.
c) To study and analyzed the guidelines and provision pertaining to the loan classification and provisioning.
d) To find out the relationship between loan and loan loss provisioning in the selected commercial banks.
e) To study the impact of loan loss provisioning on the profitability of the commercial banks.

After study, she conducted that ineffective credit policy, political pressure to lend to un creditworthy borrowers, overvaluation of collateral are the major causes of mounting non-performing loan in government owned banks like NBL. Other factors leading to accumulate of NPL are weak loan sanctioning process, ineffective credit monitoring and supervision system, economic slowdown, borrower's misconducts etc.

She also concluded that continual review and classification of loans enable banks to monitor quality of their portfolio and to make the remedial action to counter deterioration in credit quality. The present loan classification and provisioning directive seems more stringent than the previous one. As a result more provision has to be apportioned lending to lesser profitability but this kind of negative impact is only for short period.

Finally, she recommended that adequate provisioning strengthens the financial health of the banks and makes them able to face any kind of future contingencies. In addition to this establishing recovery cell, hiring assets Management Company are also measure to resolve the problem of NPL.

She also concluded that all banks to take preventive measures before the loan goes to default. All the banks are recommended to have an information system to gather all

possible information and activities about its borrowers so that necessary precaution can be taken in time.

Aryal (2002) has submitted a thesis named *"An evaluation of credit Investment and Recovery of Financial Public Enterprise in Nepal. A case study of ADB/N"*. His research statement of problem was; because of high interest rate of non-institutional sources, people are unable to pay their credit at fixed time. These institutions compel them to transfer their property to the money lender resulting himself or herself as a landless person. ADB/N is one of the major financial institutions supporting for the people for the different purpose like agro, industries, tea, coffee, livestock farming etc. ADB/N provides credit for individual and cooperatives sector to all region of the country. Credit outstanding amount is increasing day by day but the collection amount is not good. However, ADB/N has increased its effort to collect its credit. It is said that those people who really need do not receive sufficient amount of credit from ADB/N. So Aryal chose this bank to analyze the credit disbursement and recovery pattern of ADB/N.

The major findings of the research were as follows:

a) Actual credit disbursement, collection and outstanding are increasing in decreasing rate.
b) Yearly increase in credit disbursement is higher than that of collection.
c) Positive co-relation between credit disbursement and collection that is 0.996.
d) Targeted credit collection and disbursement fixed by planning and project department is not significantly different than the actual.
e) Most of the customers are unaware of the policy of the bank.

Recommendations:

a) The borrower should be informed about the credit, its use and its payment procedures and schedule.
b) Greater attention should be given to increase the credit collection and to collect old outstanding amount of credit and renewal of it.

c) To accelerate the collection, credit should be followed continuously in a regular interval of time.
d) The behavior of the person should be strictly supervised in granting credit in proper investment proposal because of most of the bad credit disbursement is due to weak decision of the personnel.

Khaniya (2003), has conducted a thesis research on *"Investment Portfolio analysis of Joint Venture Banks"*. The specified objectives of the research were as follows:

a) To analyze the risk return ratios of commercial banks.
b) To evaluate the financial performance of joint venture banks.
c) To provide the suggestive package based on the analysis of data.
d) To study existing investment policies taken by NABIL in various sectors.
e) To study portfolio structure of Nepal Bank Ltd. In investment as compared to other joint venture banks.
f) Preference given by NABIL Bank Ltd. For investment between,
   - Loan investment
   - Investment in real fixed assets
   - Investment in financial assets

The major findings of the research were as follows:

a) SCBNL and HBL have better position in industry average whereas NBBL and NBBL have low position.
b) While considering mean return on total assets, all banks SCBNL, HBL and NBBL have good performance except EBL.
c) SCBNL and EBL have mobilized their funds in investment title is higher than the standard ratio, whereas NABIL banks invested funds is slightly below than standard ratio.
d) NABIL, SCBNL and HBL were investing low amount of deposits on loan and advances, which is lower than industry average, and NBBL and EBL have invested a high amount of deposit to loan and advances, which is higher than industry average.

e) While considering investment portfolio, the industry average investment on government securities is 84%, NABIL has invested above industry average. Among the JVBs, EBL, SCBN has highest amount in the same title.
f) Similarly, looking at EPS, SCBNL has highest EPS and EBL has the lowest EPS. NABIL is almost equal and HBL has above mean EPS in comparison to industry average.
g) There is negative correlation between investment in government securities and portfolio return of JVBs. Likewise, there is negative correlation between loan and advances in private sector and portfolio return of five JVBs in Nepal.

Lamsal (2004), in his thesis, *"Credit Practices: A Study on NABIL Bank Ltd., SCB Nepal Ltd. and Himalayan Bank Ltd."*, has the major objective of examining the credit management in the selected banks.

The specific objectives of the study are;

a. To determine the liquidity position, the impact of deposit in liquidity and its effect on credit practices.
b. To measure the bank's lending strength.
c. To analyze the portfolio behavior of credit and measure the ratio and volume of lending made in agriculture, priority and productive sector.
d. To measure the credit performances in quality, efficiency and its contribution in total income.

The research findings of the study are:

a. 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 asset.
b. SCBNL's tendency to invest in government securities has resulted with the lowest ratio of loans and advances to total assets ratio whereas NABIL Bank Ltd. has highest due to steady and high volume of loans and advances throughout the years.
c. The loans and advances and investment to deposits ratio has shown that NABIL Bank Ltd. has deployed 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.

d. The portfolio analysis has revealed that the flow of loans and advances in agriculture sector is the lowest priority sector among these commercial banks. The contribution of all the banks in industrial sector is appreciable. The contribution made by Himalayan Bank Ltd. in industrial sector is the greatest and that of SCBNL is the least.
e. The lending in commercial purpose is highest in case of NABIL Bank Ltd. and least in case of SCBNL. SCBNL has highest contribution in service sector lending. It has contributed 25.47 % of its total credit in general use and social purpose.
f. The mean ratio of interest income to total income has concluded that the contribution of interest income in total income is higher in case of Himalayan Bank Ltd. and lower in case of SCBNL. The interest expenses to total deposits ratio indicate that the cost of fund in Himalayan Bank Ltd. is the highest and that of SCBNL is the least.

Paudel (2005), in his thesis, *"Credit Policy of Commercial Banks in Nepal"*, has the objective to provide the credit practices in NIBL and SBI bank. The specific objectives are;

a. To examine the liquidity and assets management of NIBL and SBI.
b. To evaluate the investment policy of NIBL and SBI.
c. To study the growth ratio of loan and advances.
d. To analyze the investment to total deposit and net profit NIBL and SBI.

His research findings are;

a. Both banks current assets have exceeded the current liabilities therefore the ratio is considered satisfactory. But the cash reserve ratios have fluctuated in high degree.
b. NIBL has maintained both current ratio and cash reserve ratio better than that of SBI.
c. The assets management ratio shows that deposit utilization of NIBL is less effective than SBI.
d. NIBL has invested lower amount of government securities and share and debenture than that of NIBL.
e. The growth ratio of total deposit, loan and advances, total investment and net profit of NIBL are less than that of SBI.

Bajracharya (2006), in his thesis, *"A Study on Credit Management of Agriculture Development Bank Limited"* has the main objective to evaluate the lending procedure of ADBL. In addition to this main objective, the study has other specific objectives;

a. To evaluate the trend of loan investment, collection and outstanding.
b. To show the achievement of purpose-wise and term-wise loan disbursement, outstanding and collection of ADBL.
c. To study lending policy, loan recovery procedure, interest rate and discount of ADBL.

His research findings are;

a. The total investment of development financing increased from Rs. 7.13 billion in FY 057/58 to Rs. 12.85 billion in FY 063/64 registering an annual average growth trend of Rs.0.82 billion or 10.43%.
b. The total collection of development financing increased from Rs. 5.34 billion in FY 057/58 to Rs. 11.84 billion in FY 063/64 registering an annual average growth trend of Rs. 0.93 billion or 14.22%.
c. The total outstanding of development financing increased from Rs. 12.89 billion in FY 057/58 to Rs. 22.18 billion in FY 063/64 registering an annual average growth

trend of Rs. 1.33 billion or 9.53%.

d. Actual loan investment/disbursement, collection and outstanding of short-term is gradually increased every year. The lowest percentage of loan collection to disbursement is 76.46% in FY 060/61 and the highest is 87.33% in FY 063/64.
e. ADBL's targeted and achieved loan disbursement is continuously followed by loan collection amount also in increasing trend. Though achieved collection ratio is increasing each year, achieved loan disbursement is in fluctuating trend since FY 059/60.

Sejuwal (2007), in his thesis, *"A Comparative Study on Credit Management of Commercial Banks; with Special Reference to NABIL and SCBNL"*, has the main objective to explore the credit efficiency or inefficiency and its management in commercial banks. The specific objectives of the study are;

a. To assess credit practice of selected commercial banks.
b. To explore the credit efficiency of selected commercial banks.
c. To explore the relationship with loan and advances, non-performing loan and net profit of selected commercial banks.

His research findings are;

a. The credit practices of NABIL in terms of total laons to deposit ratio is found to be more than SCBNL (i.e. 0.6298 > 0.3660). It indicates that NABIL has been strong to mobilize its total deposit as loan.
b. In terms of interest income to loan and advances ratio, Nabil has mean score of 0.0932 and SCBNL has the mean score of 0.0858. Form this point, NABIL Bank has the best performance in earning interest income.
c. Lending policy of SCBNL with regard to non-performing loan to total loans and advances was found to be the lowest with the mean value with 0.0351 as compare to NABIL Bank. The result indicates that if non-performing loan increases, the overall banking business will be negatively affected.
d. The ratio of loans and advances to total assets was found greater in NABIl in comparison with SCBNL which shows the good lending performance of NABIL,

whereas in terms of loan and advances to current assets ratio, NABIL has highest mean than that of SCBNL, this meant that NABIL has relatively better practice in short term lending.

e. Lending policy of SCBNL in terms of loan loss provision to total loans and advances was found relatively better than that of NABIL.

Adhikari (2008), in her thesis, *"Credit Management of Siddhartha Vikash Bank Limited"*, has the main objective to analyze the credit management of the SVBL. The specific objectives of the study are;

a. To analyze the trends of deposit collection and credit lending.
b. To assess total amount of loan.
c. To evaluate the performance of SVBL in terms of liquidity, profitability, sector wise loan, and non-performing loan.
d. To analyze the capital adequacy of SVBL.

The major findings of the study are;

a. Deposit collection of SVBL has significantly increasing trend. There is continuous increasing trend from 10 percent to 100 percent.
b. In all year total fixed deposit has more contribution than other deposit. Then more contribution of saving deposit than that of current and call deposit.
c. Correlation between deposit and loan disbursement is 0.99. This indicates that these two variables relation is highly positive.
d. Capital adequacy of the SVBL has sufficient against NRB standard. It indicates that the lending capacity of SVBL is high.
e. The highest risk of SVBL is in credit risk.

Neupane (2009), in his thesis, *"Credit Policy Analysis of Commercial Bank with Special reference to Everest Bank Limited"*, has the main objective to find out the credit management position of Everest Bank Limited. The specific objectives of the study are;

a. To evaluate the various financial ratios of the EBL.
b. To determine the impact of deposit in liquidity and its effect on lending practices.

c. To analyze trend of deposit utilization towards loan and advances and net profit.

The major findings of the study are;

a. Cash and bank balance to current deposit of the bank shows the fluctuating trend during the study period. Similarly, cash and bank balance to interest sensitive ratio of EBL is also in fluctuating trend.
b. Credit and advance to fixed deposit ratio of EBL is fluctuating trend. The mean ratio is 2.26 times in the study period. However, non-performing assets to total assets of EBL is in declining trend, whose mean ratio is 0.978%.
c. The debt to assets ratio of EBL is excessively high or in other words they have excessively geared capital structure. On an average 93% of assets is financed through debt capital that is outsiders cost bearing fund.
d. Return on loan and advances of EBL is also in fluctuating trend. The mean ratio is 2.2%. This shows the normal earning capacity of EBL.

CHAPTER - III

RESEARCH MEATHODOLOGY

Research is the process of systematic and in-depth study of any particular subject or to investigation, backed by collection, compilation, presentation and interpretation of relevant data and information.

Methodology is a set of methods used in a particular area of activity. As it is compulsory task to do these study so each and every student must perform it?

3.1 Research Design

Research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure.

Research design is the plan, structure, and strategy of investigation conceived so as to obtain answer to research question and to control variance. It includes is the overall scheme or program of research. It includes on outline of what the investigator will do from writing the hypothesis and their operational implications to final analysis of data. The structure of research is more specific. It is the outline, the scheme, and the paradigm of operations of the variables. Strategy includes the methods to be used to gather and analysis the data. In other words, strategy implies how the problems encountered in the research will be tracked.

3.2 Sources of Data

Basically this study will include the secondary data relating to the Investment and policies regarding the credit of the commercial Banks. Primary data will also be used where secondary data are inadequate.

This study include secondary data relating to “Credit” e.g. deposit, loan and advances, and profit/loss that have been collected from profit and loss account, balance sheet of

related banks, annual report of auditors. Other relating data are obtained directly from related authorized persons of concerned banks, regulating authorities i.e. ministry of Finance, NRB budget speech, NRB published books, banks bulletin, Annual report of Security exchange board of Nepal, newspaper, previous studies . According to the need and objective of the study, all the secondary data will be observed, processed and tabulated in time series.

3.3 Analysis of Data

To achieve the objective of this study some statistical and accounting tools have been used. The data extracted from financial statement and other available information are processed and tabulated in various tables and charts under different heading according to their nature. These data are then used for required calculations like ratio analysis, growth ratio and accounting tools are used to examine the financial strengths and weakness of the bank. Similarly, some statistical tools like graph, percentage coefficient of correlation, regression analysis and the method of least square linear trend are also used in this study. Statistical results help to achieve the objective of the study.

3.4 Population And Sample

The whole group which is to represent is called population, more precisely, the totality or aggregate of all individuals with the specified characteristic is a population (Universe). When some of the elements are selected with the intention of finding out something about the population from which they are taken, that group of elements is referred as a sample and the process of selection is called sampling. Simply, speaking the methods of selecting a portion of the universe with a view to draw conclusion about the universe under study is known as sampling.

The entire number of Commercial Banks will be population for the study. There are 26 commercial Banks including Agriculture Development Bank, by the year 2009. Study of the whole population may not be possible due to various difficulties so the pioneer three commercial banks have been chosen for the study.

3.5 Tools for Analysis

To compare these commercial banks, these following accounting and statistical tools are used for financial analysis.

3.5.1 Financial Ratio Analysis

The relationship between two accounting figures, expressed mathematically, is known as financial ratio (or simply ratio) (Pandey, 2000: 109).

Financial ratio analysis is designed to determine the relative strengths and weakness of business operations. It also provide framework for financial planning and control. Financial managers need the information provided by analysis both to evaluate the firm's past performance and to map future plans. Financial statement analysis involves a study of relationship between income statement and balance sheet accounts, how these relationship changes overtime and how a particular firm compares with other firms in its industry (Comparative ratio analysis).

The usefulness of ratios depends upon the ingenuity and the experience of the financial analyst who employs them. By themselves, financial ratios are fairly meaningless they must be analyzed in comparative basis. Comparison covers the leading clues in evaluating changes and trends in the first financial conditions and profitability. This comparison may be historical, but it may include an analysis of the future based upon projected financial statement (Van Horne and Achowiez, 1998:148).

The qualitative judgment has been done regarding financial performance of the firm with the help of ratio analysis. In this study, following ratio are calculated and analyzed.

A. Liquidity Ratio

The purpose of this ratio is to test the solvency position for the payment of short-term liabilities. Solvency position or liquidity denotes ability for payment of short-term liabilities.

Banking image is dependent upon its liquidity position. It should be able to provide demanded cash by its customer as and when necessary. Banking industry has its survival in its ability to create credit creation ability is dependent upon its liquidity ratio. The liquidity ratio of banking industry depends upon the banking habit of the people. Where banking practices is more pre relevant, the low current ratio doesn't necessarily increases its liquidity risk. But, in the economy like ours, here the banking habit of the people is low and the banking industry is just developing, the low liquidity ratio certainly increases the liquidity risk.

The following ratio is evaluated under liquidity ratio:

i) Current Ratio

The current ratio measures the extent to which the claims of short-term creditors are covered by short-term assets. Current ratio can be computed as:

$$\frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Current assets include normally those assets of a firm which could be converted into cash within one year period of time. These assets of firm includes cash, bank balance, and investment in treasury bills, discount, overdrafts, short term advance loans, and foreign currency loan, bills for collections, customer acceptance, stock receivable and prepaid expenses. Similarly, current liabilities includes those liabilities of a firm which are paid within one year period of time, like current payments, cash margins, current deposits, saving deposits, interbank reconciliation account, bills payable, provision for overdrafts, dividend payable, and provision for taxation.

Less or more than standard ratio is not preferable. If less than standard ratio, it shows the solvency position is not better and vice versa. Generally a current ratio of 2:1 is considered satisfactory.

ii) Cash and Bank Balance of Total Deposit Ratio

This ratio is competed by dividing cash and bank balance by total deposit. This is computed as,

$$\frac{\text{Cash and Bank Balance}}{\text{Total Deposit}}$$

Cash and bank balance includes cash in hand foreign cash in hand; cheques and other cash items balance with domestic bank and foreign bank. The total deposit consists of current deposits and the fixed deposits, money at calls and short notice and other deposits.

iii) Cash and Bank Balance to Current Assets Ratio

The ratio is computed by dividing cash and bank balance by current assets. Higher ratio shows the bank's ability to meet its demand for cash. It can be computed as,

$$\frac{\text{Cash and Bank Balance}}{\text{Current Assets}}$$

iv) Loan and Advances to Current Assets Ratio

It shows the relationship between loan and advances to current assets or shows the capacity of a bank to purchase discount bill and loan, cash credit and overdraft facility to its customer. It can be computed as,

$$\frac{\text{Loan and Advances}}{\text{Current Assets}}$$

Loan and advances represent local and foreign bills discounted and purchased and loan, cash credit and overdraft in local currency as well as inconvertible foreign currency.

B. Assets Management Ratios (Activity Ratio)

A set of ratios which measures how effectively a firm is managing its assets and whether or not the level of those assets is properly related to the level of operations as measured by sales. So this ratio is also called efficiency ratio or turnover ratio. Because they indicate the speed with which the assets are converted or turn into sales. These ratios are very important for a concern to judge how well facilities at the disposal of the concern

uses or to measure the effectiveness with which a concern uses its resources at its disposal. A proper balance generally reflects that assets are merged well. This ratio involves a relation between sales.

i) Loan and Advances to Total Deposit Ratio

This ratio is calculated to find out, how successful the bank is utilizing their total deposition loan and advances for profit generation purpose. Higher the ratio implies the better utilization of loan and advances out of total deposit.

This is calculated as,

$$\frac{\text{Loan and Advances}}{\text{Total Deposit}}$$

ii) Total Investment to Total Deposit Ratio

Investment is one of the major components of credit created to earn profit. This implies the utilization of firm's deposit on investment in government securities and shares, debenture of other companies and bank. This ratio can be calculated as,

$$\frac{\text{Total Investment}}{\text{Total Deposit}}$$

The numerator Total Investment consists of investment on government securities, investment on debentures, share in other companies and other investment.

iii) Loan and Advances to Total Working Fund Ratio

Loan and advances is the major component in working fund (total assets), which includes the ability of bank to channelize its deposit in the form of loan and advances to earn high return. This can be calculated by dividing loan and advances by total working fund. This can be stated as,

$$\frac{\text{Loan and Advances}}{\text{Total Working Fund}}$$

C. Profitability Ratio

Profitability ratio is one of the main indicators to analyze the financial performance of the firm. Profitability ratios are calculated to enlighten the end result of business activities,

which is the major criterion of the overall efficiency of the business concern. It measures the operating efficiency of the company.

Profitability ratio measures the degree of success in achieving desired level of the firm's profit. Profitability also indicates public acceptance of the product and shows the firm can produce competitively. The ratio can be computed on the basis of either sales or investment.

In this study, this ratio has been computed on the basis of investment so it is also known as return on investment ratio. Profitability ratio of a firm should always be higher.
Profitability position of the firm can be presented through the following different ways.

i) Return on Loan and Advance Ratio

Return on loan and advance ratio indicates how efficiently the bank has utilized its resources in form of loan and advances. This ratio is calculated by dividing net profit (loss) by total amount of loan and advances. This can be calculated as,

$$\frac{\text{Net Profit(loss)}}{\text{Loan and Advances}}$$

ii) Return on Total Working Fund Ratio (ROA)

This ratio shows the overall profitability of all working fund i.e. total assets, it is also known as Return on Assets (ROA). A firm has to earn satisfactory return on assets of working fund in order to long-term service. This ratio is calculated by dividing net profit (loss) by total working fund. It can be calculated as,

$$\frac{\text{Net Profit(loss)}}{\text{Total Working Fund}}$$

iii) Total Interest Earned to Total Loan and Advances Ratio

Total interest earned to Total Loan and Advances Ratio measures the income as interest from total loan and advances. Interest income could be increased by embracing good issuing and recovery credit policy. High return shows the soundness of credit policy.

$$\frac{\text{Total interest earned}}{\text{Total Loan and Advances}}$$

D. Risk Ratios

Risk means uncertainty, which lies in the banking transaction of credit management. It increases effectiveness and profitability of the bank. These ratios indicate the amount of risk associated with the various harming operations, which ultimately influence the bank's credit and investment policy. Following two ratios are evaluated.

i) Liquidity risk Ratio

This ratio measures the level of risk associated with the liquid assets i.e. cash, bank balance that are kept in the bank for the purpose of satisfying the deposit demand for cash. Higher ratio shows lower liquidity risk. This ratio is calculated by dividing total cash and bank balance by total deposit.

It can be computed as:

$$\frac{\text{Total Cash and bank Balance}}{\text{Total Deposit}}$$

ii) Credit Risk Ratio and Provisioning

Credit Risk Ratio

This ratio measures the possibility that loan will not be repaid or the investment will deteriorate in quality of going into default with consequently loss to the bank. According to definition, credit risk ratio is expressed as the percentage of non-performing loan to total loan and advances.

The ratio can be computed as:

$$\frac{\text{Non performing Loans}}{\text{Total Loans and Advances}}$$

Loan Loss Provision to Total Loan and Advances Ratio

This ratio describes the quality of assets that a bank is holding. The low ratio indicates the good quality of assets in total volume of loan and advances and high ratio indicates more risky assets in total volume of loan and advances.

The ratio can be computed as follow:

$$\frac{\text{Loan Loss Provision}}{\text{Total Loan And Advances}}$$

E. Adequacy of Loan Loss Provisioning

Nepal Rastra Bank has set up directives regarding the maintenance of loan loss provision for different types of loan of commercial banks. In this way, this analysis comprises the adequacy of loan loss provision as per NRB directives of the sample banks for the study period. Adequacy is measured by computing the ratios of loan loss provisioning to loans and advances of different classified loan.

i) Pass Loan Provision to Total Pass Loan

This ratio measures whether the sample banks under the study has maintained the pass loan provision of at least 1% of total pass loan according to NRB directive throughout the review period. The ratio can be computed as follow:

$$\frac{\text{Pass Loan Provision}}{\text{total Pass Loan}}$$

ii) Sub-standard Loan Loss Provision to Total Sub-standard Loan

This ratio measures whether the sample banks under the study has maintained the Sub-standard Loan Loss provision of at least 25% of total Sub-standard loan according to NRB directive throughout the review period. The ratio can be computed as follow:

$$\frac{\text{Sub Standard Loan Loss Provision}}{\text{Total Sub Standard Loan}}$$

iii) Provision for Doubtful Debt to Total Doubtful Debt

This ratio measures whether the sample banks under the study has maintained the Provision for Doubtful Debt of at least 50% of Total Doubtful Debt according to NRB directive throughout the review period. The ratio can be computed as:

$$\frac{\text{Provision for Doubtful Debt}}{\text{Total Doubtful Debt}}$$

iv) Provision for Bad debt(Loss) to Total Bad Debt(Loss)

This ratio measures whether the sample banks under the study has maintained the Provision for Bad (Loss) Debt of at least 100% of Total Bad (Loss) Debt according to NRB directive throughout the review period. The ratio can be computed as follow:

$$\frac{\text{Provision for Bad (Loss)}}{\text{Total Bad (Loss) Debt}}$$

3.5.2 Statistical Tools

Some important statistical tools has been used to present and analyze the data for achieving the objective of the study. Simple analytical statistical tools such as graph, percentages, Karl Person's Coefficient of Correlation, method of least square are adopted which are as follows:

i) Coefficient of correlation Analysis

This analysis interprets and identifies the relationship between two or more variables.

i) Coefficient of correlation between Total Deposit and Loan and Advances.
ii) Coefficient of correlation between Net income and Loan and Advances.
iii) Coefficient of correlation between Interest Earned and Loan and Advances
iv) Correlation between Non performing Loan and Total Loan & Advances

The above ratio tools analyzes the relationship between these relevant variables and helps the bank to make appropriate policies regarding deposit collection, fund utilization (loan and advances and investment) and profit maximization.

To find out those relationships, the following formula is used:

$$r = \frac{\sum xy}{\sqrt{\sum x^2}\sqrt{\sum y^2}}$$

Where, x= (X-$\bar{X}$), y= (Y- $\bar{Y}$)

The result of coefficient of correlation is always between -1 to +1, where r= +1 means there is a positive relationship between two variables and where r=-1, means there is a negative relationship between two variables.

ii) Trend Analysis

Under this topic, we analyze the trend of deposit, loan and advances, net profit and non performing loan of NABIL, NIBL and SCBL from F/Y 2002 to F/Y 2006 is analyzed that helps to make forecasting for next five years up to 2011. The following trends of the concerned banks have been computed for the analysis:

i) Trend analysis of total deposit
ii) Trend analysis of loan and advances
iii) Trend analysis of net profit
iv) Trend analysis of Non Performing Loan

The trend analysis of related variable can be calculated as, Y= a+bx

iii) Test of Hypothesis

A hypothesis is defined by Webster as "A tentative theory or supposition provisionally adopted to explain certain facts and to guide in the investigation of others".

For the test of hypothesis F-test has been used under this study, since the number of sample of three commercial banks is taken from the population.

The objective of this test is to test the significant different regarding the parameters of the population on the basis of sample drawn from the population this test has been conducted on the various relations related with the banking business.

i. Test of hypothesis on loan and advances to total deposit ratio of NABIL, NIBL and SCBNL.
ii. Test of hypothesis on Return on loan and advances of NABIL, NIBL and SCBNL.

i) Standard Deviation (S.D.)

The measurement of the scatterness of the mass of figures in a series about an average is known as dispersion. The standard deviation measures the absolute dispersion. The greater the amount of dispersion, greater the standard deviation. Means a high degree of uniformity of the observations as well as homogeneity of the series, a large standard deviation means just the opposite. In this study standard deviation of different ratios are calculated as under:

$$S.D = \sqrt{\frac{\Sigma(X-\bar{X})^2}{N}}$$ where, X= variable, $\bar{X}$= Mean and N= No. of Period

ii) Coefficient of Variation (C.V)

The coefficient of variation is the relative measure of dispersion, comparable across distribution, which is defined as the ratio if the standard deviation to the mean expressed in percent, it is computed as:

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

CHAPTER - IV

ANALYSIS AND PRESENTATION OF DATA

This is the analytical part of the study, this chapter deals with the presentation, analysis and interpretation of the relevant data of NABIL, NIBL and SCBNL in other to fulfill the objective of this study.

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 (Kothari, 1990).

The main purpose of this chapter is to analyze and evaluate the data through the major financial and statistical tool.

With the help of this analysis, efforts have been made to highlight credit management of the NABIL, NIBL, SCBNL as well as other cases and problems of the concerned banks. For the analysis, the researcher uses the different types of analytical methods and tools such as financial ratio analysis and statistical analysis.

4.1 Financial Analysis

The Balance sheet shows the financial position on a particular date in terms of structure of assets, liabilities and owner's equity, and profit and loss account shows the profit earned and loss sustained during a specific period. The financial analysis helps to obtain better understanding of firm's position and performance. The first step involves selecting the information, second step involves arranging the information in a way to highlight significant relationships, the final step is interpretation and drawing of conclusion.

Under this topic, some financial tools such as liquidity ratio, assets management ratio, profitability ratio, risk ratio, Adequacy of Loan Loss Provisioning ratios are used to achieve the objective of the study.

Financial analysis are as follows:

4.1.1 Liquidity Ratio

Commercial banks should maintain its satisfactory liquidity position to satisfy the credit needs of the community, to meet demands for deposit, withdraws, pay maturity obligation in time and convert non-cash to satisfy immediate needs without loss to bank and consequent impact in long run profit. The liquidity positions of the commercial banks are comparatively studied through the following ratios:

i) Current Ratio

The current ratio indicates the ability of the bank to meet its current obligation. It measures the liquidity position of financial institutions. Current ratio is calculated by dividing current assets by current liabilities (for details see appendix-A). The current ratio of NABIL, NIBL and SCBNL is under analysis in the following table.

Table 4.1

Current Assets to Current Liability Ratio (Times)

F/Y	NABIL	NIBL	SCBNL
2004/2005	0.09	0.10	0.17
2005/2006	0.12	0.12	0.11
2006/2007	0.08	0.11	0.14
2007/2008	0.13	0.10	0.14
2008/2009	0.10	0.16	0.14
Mean	**0.10**	**0.12**	**0.14**
S.D	**0.01**	**0.03**	**0.02**
C.V	**0.07**	**0.21**	**0.15**

Source: Annual Report of NABIL, NIBL and SCBNL

The above table shows that the current ratio of NABIL, NIBL and SCBNL are in fluctuating trend. The highest ratio of NABIL is 0.13 times in F/Y 2007/2008 and the lowest is 0.09 times in F/Y 2004/2005. Respectively NIBL has the highest ratio of 0.16 times in F/Y 2008/2009 and the lowest of 0.10 times in F/Y 2004/2005 &2007/2008. Respectively the SCBNL's highest ratio is 0.17 times in F/Y 2004/2005 and lowest is 0.11 times in F/Y 2005/2006.

From the mean ratio point of view current liabilities exceeded the current assets of NABIL, NIBL and SCBNL. Though SCBNL has the highest mean ratio of 0.14 among the three banks under study, yet the mean ratio of SCBNL doesn't meet the optimal standard of current ratio 2:1. Among the three banks (NABIL, NIBL and SCBNL) NABIL is much consistency in its ratio with 0.07 followed by SCBNL with 0.15 and NIBL with 0.21.

Though the optimal standard of current ratio should be 2:1, the conventional measure of liabilities is not applicable in banking sector. Banking business holds huge portion of deposit as a core deposit and this deposit remains all the time throughout the years. This core deposit forms the fixed liability on the bank though it is current in nature. So the ratio maintained by commercial banks at the level of around 1:1 can be regarded as good and sufficient to meet the normal contingencies. Therefore, the above current ratio analysis of the banks over the five years period indicates that the banks have satisfactory liability position.

ii) Cash And Bank Balance to Total Deposit Ratio

This ratio measures the availability of bank's highly liquid or immediate funds to meet its unanticipated calls on all types of deposits. This ratio is computed as Cash and Bank Balance divided by Total Deposit (for details see appendix-B). A high ratio indicates the greater ability to meet their deposits and vice-versa. The following table shows the cash and bank balance to total deposit ratio of NABIL, NIBL, and SCBNL.

The ratios are analyzed and presented through the help of following table below:

Table 4.2

Cash and Bank Balance to Total Deposit Ratio

F/Y	NABIL	NIBL	SCBNL
2004/2005	3.83	9.4	5.74
2005/2006	3.26	12.34	5.53
2006/2007	6.00	10.7	8.2
2007/2008	8.37	10.90	6.89

2008/2009	9.03	16.96	8.75
Mean	**6.10**	**12.06**	**7.02**
S.D	**2.60**	**2.93**	**1.44**
C.V	**0.43**	**0.24**	**0.20**

Source: Annual Report of NABIL, NIBL and SCBNL

The above table shows that the comparative cash and bank balance to total deposit of NABIL has increased from 2006/2007 according to the study period then, where as NIBL ratio seems to be fluctuating trend 2004/2005. The SCBNL ratios has fluctuating trend from F/Y 2004/2005 to 2008/2009. Among the three banks NIBL has the highest mean ratio of 12.06% followed by SCBNL with 7.02% then NABIL with the lowest mean ratio of 6.1%.

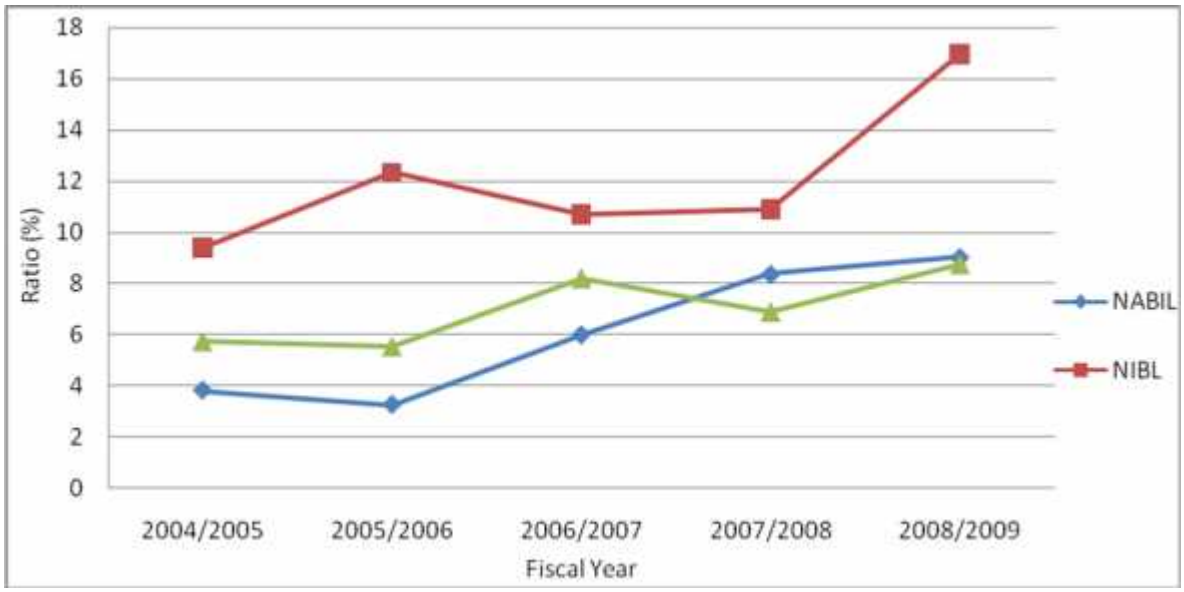
On the basis of coefficient of variation, among the three banks SCBNL has the consistent ratio than that of NABIL and NIBL.

Therefore it can be concluded that the cash and bank balance of SCBNL with respect to deposit is better against the readiness to serve its customer's deposit than NABIL and NIBL. It implies that better liquidity position of SCBNL. In contrast, a high ratio of non-earning cash and bank balance may unfit, which indicates the bank's unavailability to invest its fund in income generation areas. Thus SCBNL must invest in more productive sectors like short-term marketable securities, treasury bills etc. insuring enough liquidity which will help the bank to improve its profitability.

The Cash and Bank Balance to total deposit of the sample banks and the banking industry has also been presented through the help of figure below:

Figure 4.1

Cash and Bank Balance to Total Deposit Ratio



iii) Cash and Bank Balance to Current Assets Ratio

This ratio examines the bank liquidity capacity on the basic of its most liquid assets i.e. cash and bank balance. This ratio reveals the ability of the bank to make quick payments of its customer's deposit. A high ratio indicates the sound ability to meet the daily cash requirement of their customer's deposit and vice-versa.

This ratio is calculated by dividing cash and bank balance by current assets (for detail see Appendix-C).The comparative ratios are presented in the following table:

Table 4.3

Cash and Bank Balance to Current Assets Ratio

F/Y	NABIL	NIBL	SCBNL
2004/2005	0.39	0.91	0.33
2005/2006	0.27	0.97	0.49
2006/2007	0.71	0.87	0.53
2007/2008	0.58	1.00	0.48
2008/2009	0.86	1.00	0.60
Mean	**0.56**	**0.95**	**0.49**
S.D	**0.24**	**0.06**	**0.10**
C.V	**0.42**	**0.06**	**0.20**

Source: Annual Report of NABIL, NIBL and SCBNL

Analyzing the above ratios it clears that cash and bank balance to current asset ratio of NIBL has increased for first two years according to the study period then from F/Y 2004/2005 it started declining, where as NABIL Ratio seems to be fluctuating. The SCBNL ratios have increasing trend from F/Y 2004/2005 to 2006/2007 then fluctuating up to the study period.

On the basis of mean ratio NIBL has the highest ratio of 0.95% followed by NABIL with mean ratio 0.56% and SCBNL with mean ratio 0.49%, which is the lowest among the banks under study. It supports the conclusion that SCBNL has not been successful in maintaining its higher cash and bank balance to current asset ratio in comparison to NIBL and NABIL. Even the variability of the ratio of NABIL is higher than that of NIBL and SCBNL.

iv) Loan and Advances To Current Asset Ratio

Loan and advances are the current assets of commercial bank, which includes loan and advances, cash, credit, loan and foreign bills purchased, overdraft and discount. A commercial bank should not keep its all connected fund as cash and bank balances but they should be invested as loan and advances to customers because they must earn high profit by mobilizing funds for long life banking. They should pay interest on these deposit funds even they don't generate loan and advances and may lose some earning. However, high loan and advances may be harmful, since they need sufficient liquidity.

This ratio is calculated by dividing loan and advances by current assets (for details see Appendix- D).The ratios are analyzed and presented through the help of following table below:

Table 4.4

Loan and Advances to Current Asset Ratio

F/Y	NABIL	NIBL	SCBNL
2004/2005	7.41	6.71	2.42
2005/2006	5.46	5.31	3.47
2006/2007	7.92	6.16	2.78

2007/2008	4.62	7.19	3.23
2008/2009	7.03	4.58	2.63
Mean	**6.49**	**5.99**	**2.90**
S.D	**1.39**	**1.05**	**0.43**
C.V	**0.21**	**0.18**	**0.15**

Source: Annual report of NABIL, NIBL and SCBNL

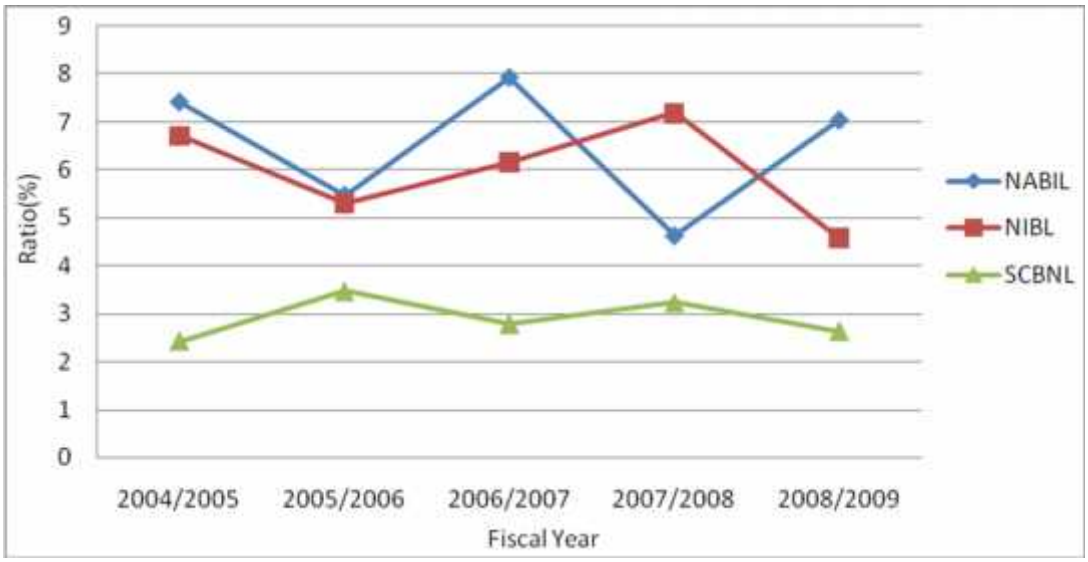
The above comparative table shows that NABIL has fluctuating trend of loan and advance to current asset ratio during the study period. It has highest ratio of 7.92% in F/Y 2006/2007 and the lowest of 4.62% in F/Y 2007/2008,as well NIBL's ratios are in fluctuating trend, the highest ratio is 7.19% in F/Y 2007/2008 and the lowest is 4.58% in F/Y 2008/2009, similarly SCBNL has also fluctuating trend, the highest ratio is 3.47% in F/Y 2005/2006 and the lowest is 2.42% in F/Y 2004/2005.

From the mean ratio point of view NABIL has the highest ratio of 6.49% followed by NIBL with mean ratio 5.99% and then SCBNL with 2.90% mean ratio. The SCBNL seems to have much more consistency than the NABIL and NIBL with its loan and advances to current asset ratio which is computed as 0.15%. NABIL has more inconsistent loan and advances to current asset ratio, which is 0.21%.

The loan and advances to current assets ratio of NABIL, NIBL and SCBNL has been graphically presented below:

Figure 4.2

Loan and Advances to Current Asset Ratio



4.1.2 Asset Management Ratio

This ratio measures how effectively the commercial banks are managing its assets and whether or not the level of those assets is properly related to the level of operations as measured by sales. In other words commercial banks should be able to manage its assets properly to earn high profit maintaining the appropriate level of liquidity. The following ratios are measured for the assets management ratio of the NABIL, NIBL, and SCBNL in comparison.

i) Loan And Advances To Total Deposit Ratio

This ratio measures the bank's success to mobilize their funds on loan and advance for the purpose of income generation.

A high ratio indicates better mobilization of collected deposit and vice-versa. But, it is known that high ratio may not be better from the liquidity point of view. This ratio is computed by dividing loan and advances by total deposit.

This ratio is calculated by dividing loan and advances by total deposit (for details see Appendix- E).The following table shows the loan and advances to total deposit of the sample bank.

Table 4.5

Loan and Advances to Total Deposit Ratio

F/Y	NABIL	NIBL	SCBNL
2004/2005	0.73	0.70	0.42
2005/2006	0.67	0.68	0.39
2006/2007	0.67	0.71	0.43
2007/2008	0.67	0.78	0.46
2008/2009	0.74	0.78	0.38
Mean	**0.69**	**0.73**	**0.42**
S.D	**0.28**	**0.05**	**0.03**
C.V	**0.40**	**0.07**	**0.08**

Source: Annual Report of NABIL, NIBL and SCBNL

The above table reveals that the NABIL's total investment to total deposit ratio has an constant trend from F/Y 2005/2006 to 2007/2008 then after in the F/Y 2008/2009 the ratio has increased to 0.74%. NABIL has the highest ratio of 0.74% in the F/Y 2008/2009 and the lowest ratio is 0.67% in three F/Y from 2004/2005. Whereas the NIBL has fluctuating trend up to F/Y 2006/2007, and then after it has constant ratio, its highest ratio is 0.78% in the F/Y 2007/2008 & 2008/2009 and the lowest ratio is 0.68% in the F/Y 2005/2006. Similarly SCBNL has also fluctuating trend its highest ratio is 0.46% in the F/Y 2007/2008 and the lowest ratio is 0.38% in the F/Y 2008/2009.

On the other hand the mean ratio of NIBL is the highest with 0.73%, then after NABIL with the mean ratio of 0.69%. And the SCBNL with the lowest mean ratio of 0.42% among the three. Similarly, observing through the coefficient of variation of the ratios, we can conclude that NIBL has seen more consistent among the three with the lowest C.V of 0.07% followed by SCBNL with 0.08% then NABIL with highest C.V 0.40%.

From the above analysis we can conclude that NIBL is the most successful though it is less consistent than SCBNLL followed by NABIL (has the highest consistency among the three) and NABIL is the least successful among the three banks to mobilize its total deposit as loan and advances and acquiring high profit. Whereas high ratio is not better from the point of view of liquidity as the loan and advances is not as liquid as cash and bank balance.

ii) Total Investment to Total Deposit Ratio

A commercial bank may mobilize its deposit by investing its fund in different securities issued by government and other financial and non-financial companies. Now 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.

The ratio is computed by dividing total investment by total deposit (for details see Appendix- F), this ratio is computed in reference to NABIL, NIBL, SCBNL and the Banking Industry as a whole in the following table.

Table 4.6

Total Investment to Total Deposit Ratio

F/Y	NABIL	NIBL	SCBNL
2004/2005	0.29	0.28	0.50
2005/2006	0.32	0.30	0.56
2006/2007	0.38	0.27	0.55
2007/2008	0.31	0.20	0.47
2008/2009	0.29	0.16	0.56
Mean	**0.32**	**0.24**	**0.53**
S.D	**0.14**	**0.06**	**0.04**
C.V	**0.43**	**0.24**	**0.08**

Source: Annual Report of NABIL, NIBL and SCBNL

The above table reveals that the NABIL's total investment to total deposit ratio has a increasing trend up to F/Y 2006/2007 then after in the F/Y 2007/2008 the ratio ha been slightly decreased. NABIL has the highest ratio of 0.38% in the F/Y 2006/2007 and the lowest ratio of 0.29% in the F/Y 2004/2005 & 2008/2009. Whereas the NIBL has fluctuating trend in the ratio throughout the review period, its highest ratio is 0.30% in the F/Y 2005/2006 and the lowest ratio of 0.16% in the F/Y 2008/2009. In case of SCBNL the total investment to total deposit ratio has a increasing trend up to F/Y 2005/2006 and decrease for two fiscal year during study period. The highest ratio is

0.56% in the F/Y 2005/2006 & 2008/2009 and the lowest ratio of 0.50% in the F/Y 2004/2005.

From mean ratio point of view, SCBNL's capacity to mobilize their deposit on total investment is highest among the three banks; SCBNL has the highest mean ratio of 0.53%, then after NABIL with the mean ratio of 0.32%. And the NIBL has the lowest mean ratio of 0.24% amongst the three. On the other hand, observing the coefficient of variation of the ratio, we can conclude that SCBNL has been seen more consistent among the three with the lowest C.V of 0.08% followed by NIBL with 0.24%.

From the above analysis we can conclude that SCBNL is the most successful and NABIL is the least successful among the three banks to utilize its resources as an investment point of view.

Total deposit, loan and advances and total investment of NABIL, NIBL, SCBNL and the Banking Industry are presented in the bar diagram as follows:

Figure 4.3

Total Investment, Loan & Advances and Total Deposit of NABIL

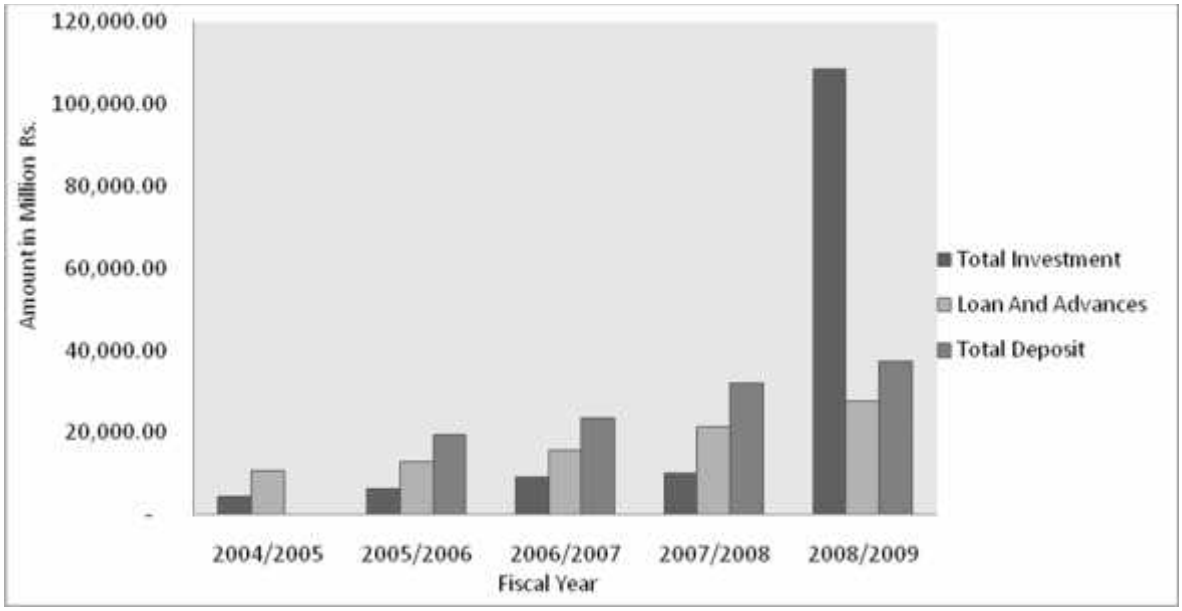


Figure 4.4

Total Investment, Loan & Advances and Total Deposit of NIBL

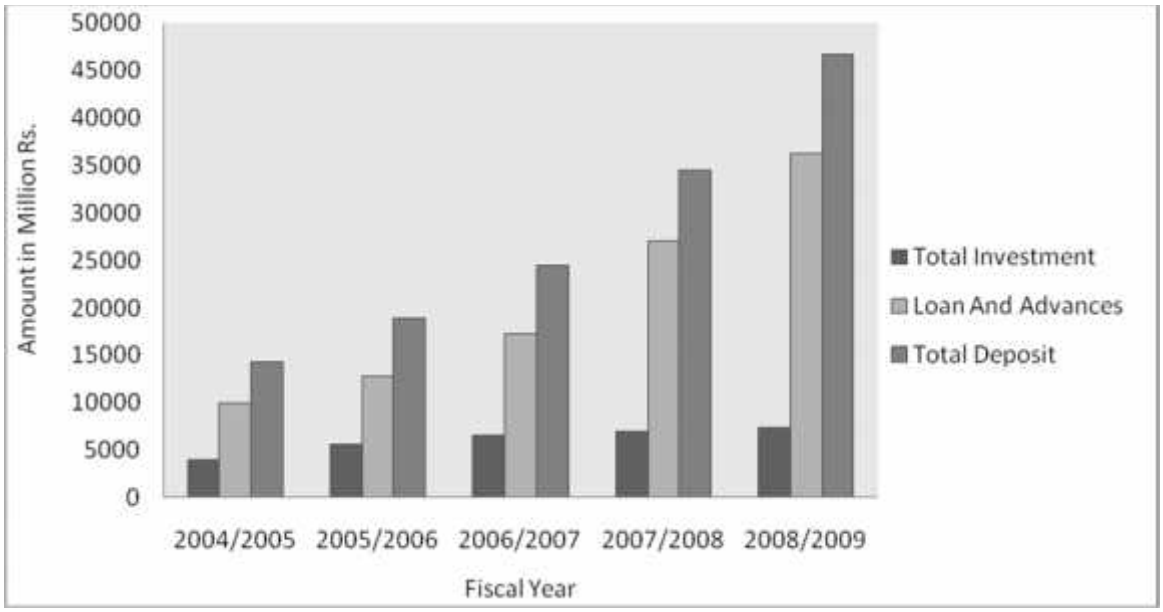
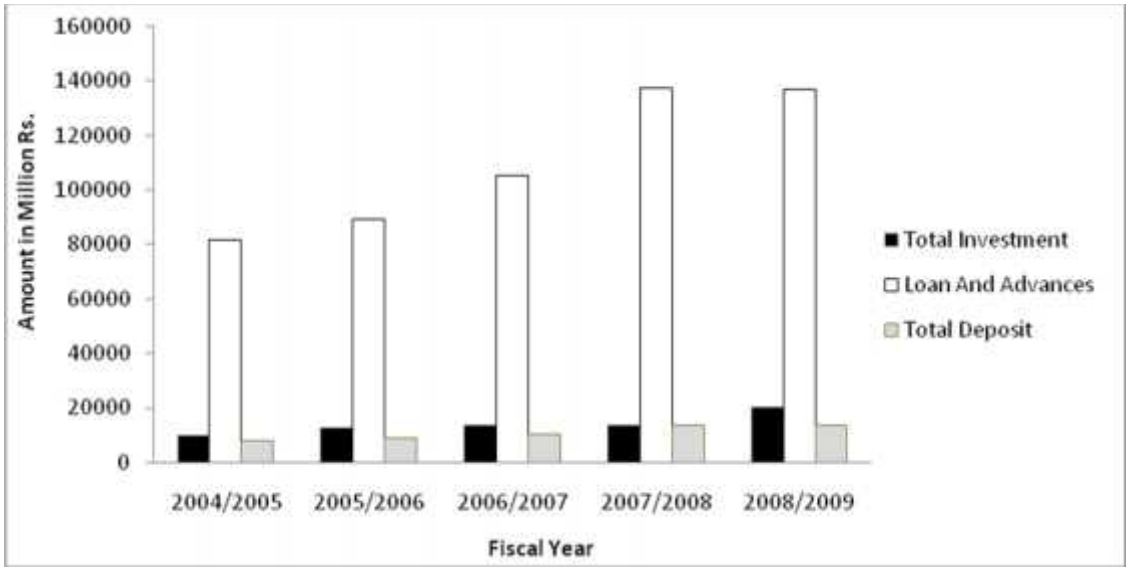


Figure 4.5

Total Investment, Loan & Advances and Total Deposit of SCBNL



iii) Loan And Advances To Total Working Fund Ratio

Loan and advances of any commercial bank represent the major portion in the volume of total working fund. This ratio measures the volume of loan and advances in the structure of total assets. The high degree of this ratio indicates the good performance of the bank in mobilizing its funds by the way of lending function for the purpose of income generation. However, in its reserve side, the low degree of this represents low liquidity ratio.

This ratio is calculated by dividing loan and advances by total working fund (for details see Appendix- G). The ratio of NABIL, NIBL and SCBNL has been presented in the following table.

Table 4.7

Loan and Advances to Total Working Fund Ratio

F/Y	NABIL	NIBL	SCBNL
2004/2005	0.62	0.62	0.37
2005/2006	0.58	0.60	0.35
2006/2007	0.57	0.63	0.37
2007/2008	0.58	0.69	0.41
2008/2009	0.63	0.68	0.34
Mean	**0.59**	**0.64**	**0.37**
S.D	**0.03**	**0.04**	**0.04**
C.V	**0.05**	**0.07**	**0.11**

Source: Annual Report of NABIL, NIBL and SCBNL

The above table shows that the NABIL's ratios are in fluctuating trend. The highest ratio is 0.63% in F/Y 2008/2009 and the lowest ratio is 0.57% in 2006/2007 . Similarly the ratios of NIBL are also in fluctuating trend with highest ratio 0..69% in F/Y 2007/2008 and the lowest is 0.60% in F/Y 2005/2006. Whereas, the ratios of SCBNL is in fluctuating trend. The highest ratio of SCNBL is 0.41% in F/Y 2007/2008 and the lowest is 0.34% in F/Y 2008/2009.

On the basis of mean ratio of loan and advances to total working fund, it can be said that NIBL has the highest mean ratio of 0.64%, followed by NABIL with mean ratio 0.59% and then SCBNL with 0.37%. Which mean NIBL has strong position to mobilize its working fund as loan and advance for generating income than NABIL and SCBNL.

However, SCBNL's ratio is least consistent than NABIL and NIBL i.e.0.11%(SCBNL)>0.07%(NIBL)>0.05%(NABIL).

Well, concluding the above analysis we could say that SCBNL's fund mobilization ratio in terms of loan and advances with respect to total working fund is satisfactory than NABIL and NIBL.

4.1.3 Profitability Ratio

Profit is the most for any bank for its survival. And the profitability ratio helps to measure and indicate how efficient the bank is in profit generation. A higher ratio shows the higher efficiency of the bank. The following ratio has been computed under this profitability ratio type:

i) Return On Loan And Advances Ratio

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

This ratio is calculated by dividing loan and advances by Net Profit (for details see Appendix- H). The ratio has been presented through the help of the following table:

Table 4.8

Return on Loan and Advances Ratio

F/Y	NABIL	NIBL	SCBNL
2004/2005	4.91	2.34	6.59
2005/2006	4.92	2.74	7.37
2006/2007	4.34	2.90	6.59
2007/2008	3.49	2.58	5.97
2008/2009	3.74	2.49	7.49
Mean	**4.28**	**2.61**	**6.80**
S.D	**0.66**	**0.17**	**0.63**
C.V	**0.15**	**0.06**	**0.09**

Source: Annual report of NABIL, NIBL and SCBNL

From the above comparative table, NABIL's ratios are in fluctuating trend up to the study period. NABIL has the highest ratio of 4.92% in the F/Y 2005/20056 and the lowest ratio is 3.74% in the F/Y 2008/2009. Whereas the NIBL's ratio has increased up to F/Y 2006/2007 then after it decreased up to F/Y 2008/2009. NIBL has the highest ratio of 2.90% in the F/Y 2006/2007 and the lowest ratio is 2.34% in F/Y 20074/2005. SCBNL has a fluctuating trend in its ratio, its highest ratio is 7.49% in F/Y 2008/2009 and the lowest ratio is 5.97% in F/Y 2007/2008. Comparing the mean ratio SCBNL has the highest mean ratio of 6.80% followed by NABIL with 4.28% then NIBL with 2.61%. The mean ratio specify that SCBNL has been successful in maintaining its higher return on loan and advances in comparison to other two banks under study, however, it doesn't has as much consistency as NIBL . The NIBL seems to have much consistency with 0.06% than SCBNL with 0.09% and the NIBL with 0.15%.

Conclusively, we can say that SCBNL has higher return on loan and advances in comparison to NABIL and NIBL.

ii) Return On Total Working Fund Ratio

Return on total working fund (ROA) ratio measures the profitability with respect to each financial resources 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. The ratio is calculated by dividing Net profit by Total working fund assets.

This ratio is calculated by dividing Total Working Fund by Net Profit (for details see Appendix- I).The following table has been presented in order to show the profitability position with respect to total assets of NABIL, NIBL and SCBNL

Table 4.9

Return on Total Working Fund Ratio

F/Y	NABIL	NIBL	SCBNL
2004/2005	3.05	1.45	2.45
2005/2006	2.84	1.64	2.56

2006/2007	2.47	1.82	2.42
2007/2008	2.01	1.79	2.46
2008/2009	2.35	1.70	2.53
Mean	**2.55**	**1.68**	**2.48**
S.D	**0.41**	**0.09**	**0.06**
C.V	**0.16**	**0.05**	**0.02**

Source: Annual report of NABIL, NIBL and SCBNL

The above table revels that the return on total assets of NABIL is in decreasing trend . The highest ratio is 3.05% in F/Y 2004/2005 and the lowest is 2.01% in F/Y 2007/2008. Whereas NIBL has a increasing trend except in F/Y 2007/2008 & 2008/2009.NIBL has highest ratio of 1.82% in the F/Y 2006/2007 and the lowest ratio of 1.45% in the F/Y 2004/. Similarly SCBNL has also the fluctuating trend in its ratios the highest ratio observed is 2.56% in the F/Y 2004/2005 and the lowest in the F/Y 2006/2007 with 2.42%.

Through the perspective of mean ratio NABIL has the highest mean ratio of 2.55% followed by SCBNL with 2.48% then by NIBL with 1.68%. From this analysis it seems that NABIL with its highest mean among the three banks is able to earn high profit on total working fund assets although it has least consistency in its ratios than SCBNL and NIBL. SCBNL ratios are more consistent with C.V 0.02% than that of NIBL with 0.05% and NABIL with 0.16%.

Conclusively, from the above analysis of Return on Total Working Fund ratio made among the three banks NABIL, SCBNL and NIBL we can say that NABIL has higher return on Total Working Fund.

iii) Total Interest Earned to Total Loan and Advances Ratio

Total interest earned to Total Loan and Advances Ratio measures the income as interest from total loan and advances. Interest income could be increased by embracing good issuing and recovery credit policy. High return shows the soundness of credit policy.

This ratio is calculated by dividing total Interest earned by Total Loan and advances (for details see Appendix- J).The following table has been presented in order to show the total interest earned with respect to total loan and advances of NABIL, NIBL and SCBNL.

Table 4.10

Total Interest Earned to Total Loan and Advances Ratio

F/Y	NABIL	NIBL	SCBNL
2004/2005	10.10	8.93	13.00
2005/2006	10.14	9.18	13.31
2006/2007	10.21	9.17	13.44
2007/2008	9.26	8.13	11.60
2008/2009	10.14	9.02	13.80
Mean	**9.97**	**8.88**	**13.03**
S.D	**0.40**	**0.44**	**0.85**
C.V	**0.04**	**0.05**	**0.07**

Source: Annual Report of NABIL, NIBL and SCBNL

The above table reveals that the total interest earned to total loan and advances ratio of NABIL bank has increasing trend up to F/Y 2006/2007 and then it has decreased in F/Y 2007/2008. The highest ratio of NABIL is 10.21% in F/Y 2006/2007 and the lowest is 9.26% in F/Y 2007/2008. However the ratios of NIBL is in fluctuating trend the highest ratio is 9.18% in F/Y 2005/2006 and the lowest is 8.13% in F/Y 2007/2008. In case of SCBNL the total interest earned to total loan and advances ratio has increasing trend up to F/Y 2006/2007 study period. The highest ratio of SCBNL is 13.80% in F/Y 2008/2009 and the lowest is 11.60% in F/Y 2007/2008.

Computing through the mean ratio point of view SCBNL has the highest mean total interest to total loan and advances ratio of 13.03%. Whereas NABIL stood second with mean ratio 9.97%. NIBL has the least mean ratio of 8.88%.

Conclusively, we can say that SCBNL is generating more income through loan and advances than NABIL and NIBL.

4.1.4 Risk Ratios

The possibility of risk makes bank's investment a challenging task. Bank has to take risk to get return on its investment. Higher the risk higher will be the return on investment. So banks operating for high profit have to accept the risk and manage it efficiently.

Through following ratios, efforts have been made to measure the level of risk essential for the banks NABIL, NIBL and SCBNL under study.

4.1.4.1 Liquidity Risk Ratio

The liquidity risk of the bank defines liquidity need for its deposit. The ratio of cash and bank balance to total deposit is the indicator of bank liquidity need. Cash and bank balance are considered as banks liquidity sources and deposits as the liquidity need. A higher liquidity indicates less risk and less profit and vice-versa.

The ratio is computed by dividing liquid assets or cash and bank balance by total deposit (for details see Appendix K). Through the help of following table Cash and Bank Balance to Total Deposit Ratio has been presented:

Table 4.11

Cash and Bank Balance to Total Deposit Ratio

F/Y	NABIL	NIBL	SCBNL
2004/2005	3.83	9.40	5.74
2005/2006	3.26	12.34	5.53
2006/2007	6.00	9.97	8.20
2007/2008	8.37	10.90	6.89
2008/2009	9.03	16.96	8.75
Mean	**6.10**	**11.91**	**7.02**
S.D	**2.60**	**3.03**	**1.43**
C.V	**0.43**	**0.25**	**0.20**

Source: Annual Report of NABIL, NIBL and SCBNL

The above table shows that the comparative liquidity risk ratio of NABIL has increased from F/Y 2006/2007 of the study period, where as NIBL Liquidity Risk Ratio seems to be fluctuating with highest ratio 16.96% in F/Y 2008/2009 and the lowest ratio of 9.97% in F/Y 2006/2007. The SCBNL Liquidity Risk ratio has fluctuating from the study

period, its highest ratio is 8.75% in F/Y 2008/2009 and the lowest is 5.53% in the F/Y 2005/2006. NIBL has the highest mean ratio of 11.91% followed by SCBNL with 7.02% then NABIL with the lowest mean ratio of 6.10%.

From the perspective of Coefficient of Variation, among the three banks SCBNL has the consistent ratio than NABIL and NIBL.

Conclusively, we can say that SCBNL has maintained higher liquidity which would obviously results lower profit than NIBL and NABIL. Whereas NABIL has the least liquidity among the three banks with stable liquidity risk ratio, which means NABIL has taken higher risk than the other two banks under study for the higher profit.

4.1.4.2 Credit Risk Ratio and Loan Loss Provisioning

i) Credit Risk Ratio

Bank utilizes its collected fund in providing credit to different sectors. While making the investment, bank examines the credit risk involved in the project which may be the risk of default or the non-payment of loan.

The credit risk ratio is computed by dividing NPL by Total Loans and Advances (For details see Appendix L1). The following table has been presented for the comparative credit risk ratio of the NABIL, NIBL and the SCBNL under study period.

Table 4.12

Non Performing Loans to Total Loans and Advances Ratio

F/Y	NABIL	NIBL	SCBNL
2004/2005	1.37	2.83	2.78
2005/2006	1.41	2.13	2.19
2006/2007	1.15	2.44	1.88
2007/2008	0.75	1.15	0.94
2008/2009	0.81	0.59	0.67
Mean	**1.10**	**1.83**	**1.69**
S.D	**0.30**	**0.93**	**0.88**
C.V	**0.28**	**0.51**	**0.52**

Source: Annual Report of NABIL, NIBL and SCBNL

The table reveals that the NABIL's Credit Risk ratios are in decreasing trend from F/Y 2006/2007 but it has slightly increased in the F/Y 2008/2009. The highest ratio is 1.41% in F/Y 2005/2006 and the lowest ratio is 0.75% in 2007/2008. Whereas the ratios of NIBL are in fluctuating trend with highest ratio 2.83% in F/Y 2004/2005 and the lowest is 0.59% in F/Y 2008/2009. The ratios of SCBNL are in decreasing trend with the highest ratio 2.78% in F/Y 2004/2005 and the lowest is 0.67% in F/Y 2008/2009.

Through the mean ratio point of view, NIBL has the highest NPL to total loans and advances ratio with 1.83% in comparison to SCBNL with 1.69% and NIBL with 1.10%. The mean ratios of the banks under study show that the NIBL has the lowest NPL with respect to its total loan and advances than SCBNL and NABIL however, NIBL's ratios are not as much consistent than that of SCBNL. Among the three banks NIBL's ratios have more consistency, followed by NIBL and then SCBNL.

ii) Loan Loss Provision to Total Loan and Advances Ratio

Loan loss provision to total loan and advances describes the quality of assets that a bank holding. The amount of loan loss provision is balance sheet refers to general loan loss provision. The provision for loan loss reflects the increasing probability of non-performing loan. The increment in loan loss provision result a decreased profit and thereby decrease in dividend payment but its positive impact is that it strengthens financial conditions of the banks by controlling credit risks related to deposits. So it can be said that bank suffer from it for short term while the good financial conditions and safety of loans will make bank's prosperity resulting increasing profits for long term.

The low ratio indicates the good quality of assets in total volume of loan and advances and high ratio indicates more risky assets in total volume of loan and advances.

This ratio is computed by dividing loan loss provision by loan and advances (For details see Appendix L2). The loan loss provision to loan and advances ratio has been presented through the help of the following table:

Table 4.13

Loan Loss Provision to Total Loan and Advances Ratio

F/Y	NABIL	NIBL	SCBNL
2004/2005	3.41	3.29	3.41
2005/2006	2.76	3.15	3.03
2006/2007	2.30	2.79	2.74
2007/2008	1.85	1.97	1.79
2008/2009	1.48	1.62	1.47
Mean	**2.36**	**2.56**	**2.49**
S.D	**0.76**	**0.74**	**0.83**
C.V	**0.32**	**0.29**	**0.33**

Source: Annual Report of NABIL, NIBL and SCBNL

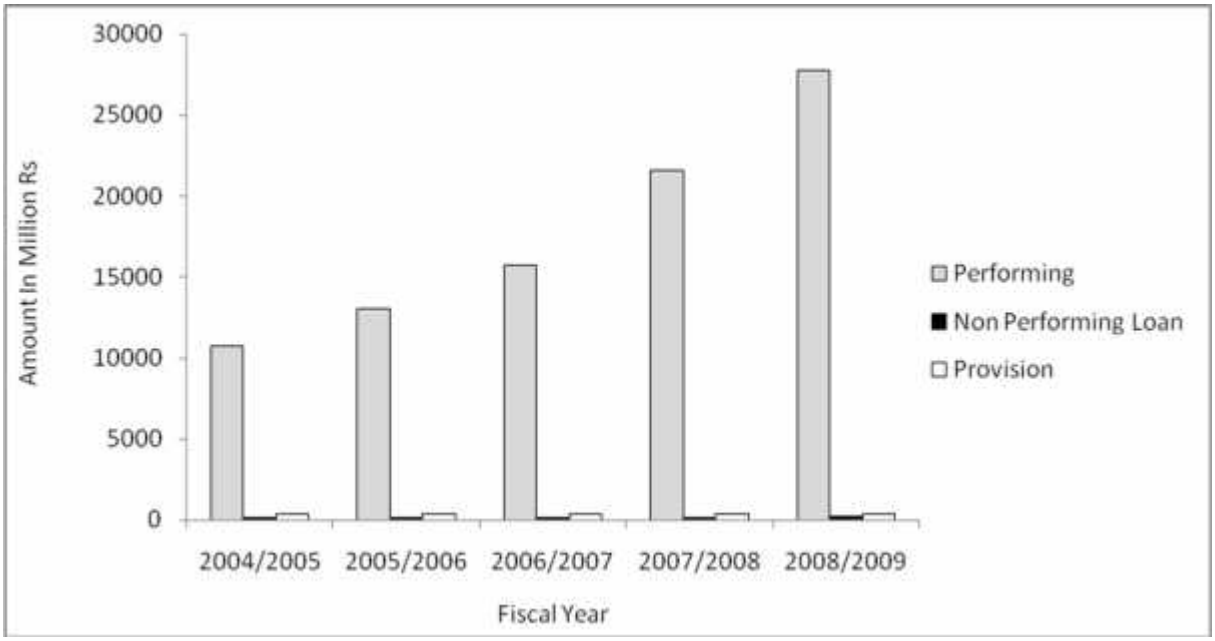
The above table reveals that the NABIL's ratios are in decreasing trend. The highest ratio is 3.41% in F/Y 2004/2005 and the lowest ratio is 1.48% in 2008/2009. Whereas the ratios of NIBL are also in decreasing trend with highest ratio 3.29% in F/Y 2004/2005 and the lowest is 1.62% in F/Y 2008/2009. The ratios of SCBNL are in decreasing trend with the highest ratio 3.41% in F/Y 2004/2005 and the lowest is 1.47% in F/Y 2008/2009.

Through the mean ratio point of view NIBL has the highest loan loss provision to total loan and advances ratio of 2.56% followed by SCBNIL with 2.49% mean ratio and then by NABIL with mean ratio 2.36%. NIBL's ratios have more consistency with 0.29% than NABIL with 0.32% then SCBNL with 0.33% which is the least consistent among the three banks.

Following figures represents five years Performing Loans, Non Performing Loans and Loan Loss Provision of NABIL, NIBL and SCBNL

Figure 4.6

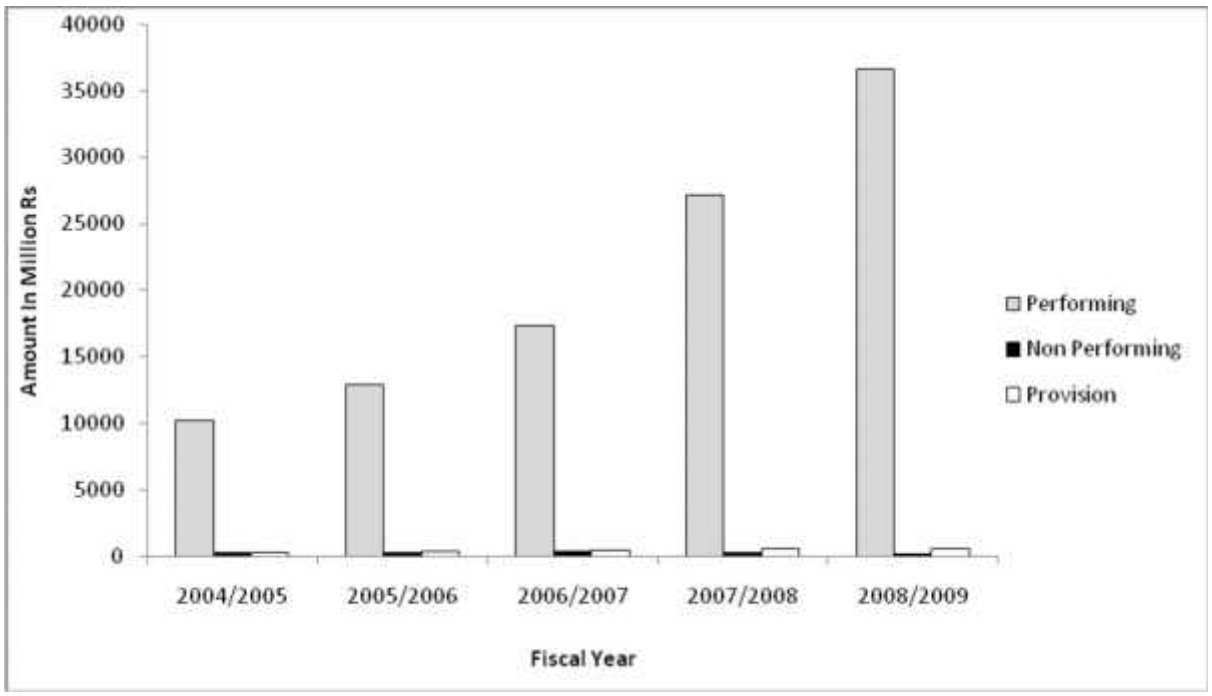
Performing Loan, Non Performing Loan and Loan Loss Provision of NABIL



Source: Appendix L1, L2 and M

Figure 4.7

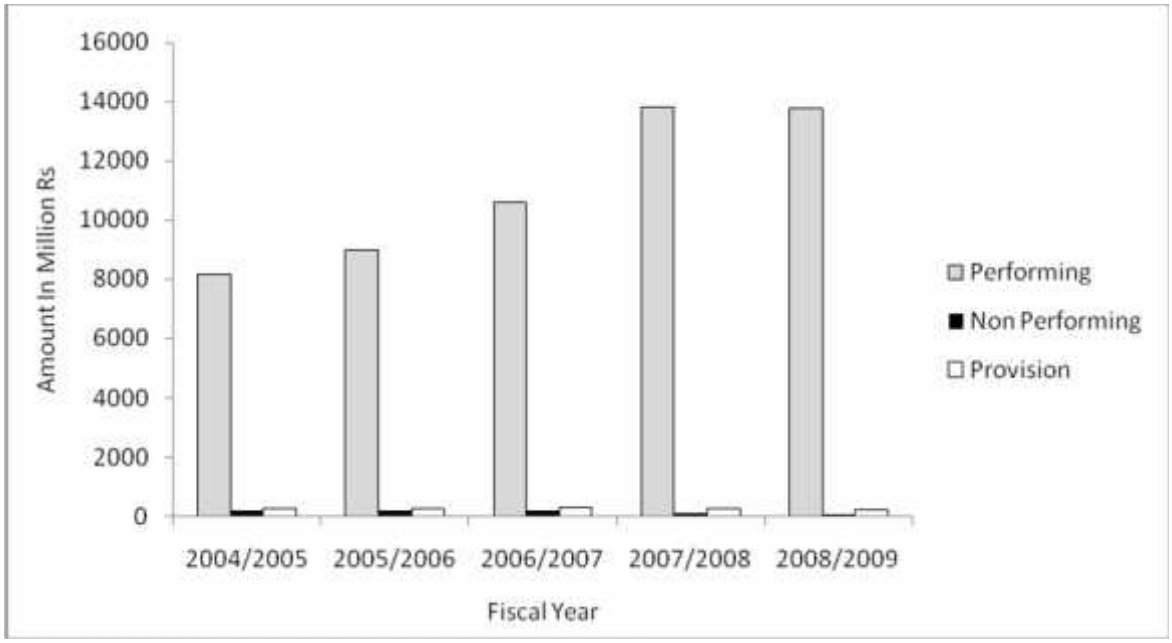
Performing Loan, Non Performing Loan and Loan Loss Provision of NIBL



Source: Appendix L1, L2 and M

Figure 4.8

Performing Loan, Non Performing Loan and Loan Loss Provision of SCBNL



Source: Appendix L1, L2 and M

4.1.5 Adequacy of Loan Loss Provisioning

Nepal Rastra Bank has set up directives regarding the maintenance of loan loss provision for different types of loan of commercial banks. In this way, this analysis comprises the adequacy of loan loss provision as per NRB directives of the sample banks for the study period. Adequacy is measured by computing the ratios of loan loss provisioning to loans and advances of different classified loan.

i) Pass Loan Provision To Total Pass Loan Ratio

The pass loan provision to total pass loan ratio shows that whether the Banks under study are complying with the directives issued by the Nepal Rastra Bank. This ratio is

computed by dividing pass loan provision by Total Pass Loan (For details see Appendix M).

Table 4.14

Pass Loan Provision to Total Pass Loan Ratio

F/Y	NABIL	NIBL	SCBNL
2004/2005	2.18	0.99	1.00
2005/2006	1.64	1.28	1.00
2006/2007	1.62	1.03	1.00
2007/2008	1.36	1.03	1.00
2008/2009	1.01	0.76	1.00
Mean	**1.56**	**1.02**	**1.00**
S.D	**0.43**	**0.18**	**0.00**
C.V	**0.27**	**0.18**	**0.00**

Source: Annual Report of NABIL, NIBL and SCBNL

The above table depicts the ratios of total pass loan provision to total loan of NABIL, NIBL and SCBNL for five financial years starting from F/Y 2004/2005 to F/Y 2008/2009. The pass loan provision to total pass loan ratio of NABIL has a decreased through study period. However it has maintained the pass loan provision of at least 1% of total pass loan according to NRB directive throughout the review period. NIBL is also very much close maintaining it around 1%. Its highest ratio is 1.28% in F/Y 2005/2006 and the lowest is 0.76% in F/Y 2008/2009. Similarly, SCBNL has also maintained the ratios as according to NRB directives throughout the review year.

From mean ratio point of view both of the trio banks have been able to maintain the pass loan provision of at least 1% of total pass loan. However the level of consistency of these banks under study has been different. SCBNL's ratio is much more consistent with 0.00% than that of NIBL with 0.18% and NABIL with 0.27%.

Overall with all the analysis which has been made above, we could conclude that NABIL, NIBL and SCBNL have been able to maintain the pass loan provision of at least 1% of total pass loan as according to NRB directives.

ii) Substandard Loan Loss Provision to Total Substandard Loan Ratio

The substandard loan loss provision to total substandard loan ratio shows that whether the Banks under study are complying with the directives issued by the Nepal Rastra Bank. This ratio is computed by dividing Substandard Loan Loss provision by Total Substandard Loan (For details see Appendix N).

Table 4.15

Substandard Loan Loss Provision to Total Substandard Loan Ratio

F/Y	NABIL	NIBL	SCBNL
2004/2005	31.10	25.80	25.00
2005/2006	67.94	25.00	25.00
2006/2007	47.31	25.36	25.00
2007/2008	48.78	25.00	25.00
2008/2009	38.90	25.00	25.00
Mean	**46.81**	**25.23**	**25.00**
S.D	**13.78**	**0.35**	**0.00**
C.V	**0.29**	**0.01**	**0.00**

Source: Annual Report of NABIL, NIBL and SCBNL

The above table depicts the ratios of substandard loan loss provision to total substandard loan of NABIL, NIBL and SCBNL for five financial years starting from F/Y 2004/2005 to F/Y 2008/2009. The substandard loan loss provision to total substandard loan ratio of NABIL has a decreased from F/Y2006/200. Its highest ratio is 67.94% in F/Y 2005/2006 and the lowest is 31.10% in F/Y 2004/2005. Similarly, NIBL has also fluctuating trend in its ratio. Its highest ratio is 25.80% in F/Y 2004/2005 and the lowest is 25%. Whereas, SCBNL has remained constant in its ratios of 25%.

From mean ratio point of view all three banks NABIL, NIBL& SCBNL has been able to maintain the substandard loan loss provision of at least 25% of total substandard loan according to the directives of NRB. However NABIL's ratios are inconsistent in comparison to the ratios of NIBL and SCBNL.

Concluding the above analysis all three banks NABIL, NIBL & SCBNL has been able to meet the standard set by the NRB. Though, NABIL & NIBL has failed to maintain the

standard as set by NRB in each of the review year. Whereas SCBNL has maintained the standard as set by NRB in all the review year.

iii) Provision for Doubtful Debt to Total Doubtful Debt Ratio

The Provision for Doubtful Debt to Total Doubtful Debt Ratio shows that whether the Banks under study are complying with the directives issued by the Nepal Rastra Bank. This ratio is computed by dividing Provision for Doubtful Debt by Total Doubtful Debt (For details see Appendix O).

Table 4.16

Provision for Doubtful Debt to Total Doubtful Debt Ratio

F/Y	NABIL	NIBL	SCBNL
2004/2005	73.21	50.12	78.22
2005/2006	47.00	50.00	95.73
2006/2007	49.20	50.07	95.32
2007/2008	32.11	50.19	93.74
2008/2009	51.42	50.00	81.64
Mean	**50.59**	**50.08**	**88.93**
S.D	**14.74**	**0.08**	**8.34**
C.V	**0.29**	**0.002**	**0.09**

Source: Annual Report of NABIL, NIBL and SCBNL

The above table depicts the Provision for Doubtful Debt to Total Doubtful Debt Ratio of NABIL, NIBL and SCBNL for five financial years starting from F/Y 2004/2005 to F/Y 2008/2009. The Provision for Doubtful Debt to Total Doubtful Debt Ratio of NABIL has a fluctuating trend. Its highest ratio is 73.21% in F/Y 2004/2005 and the lowest is 32.11% in F/Y 2007/2008. Similarly, NIBL has also fluctuating trend in its ratio. Its highest ratio is 50.19% in F/Y 2007/2008 and the lowest is 50.00% . Similarly, SCBNL has also fluctuating trend in its ratio, its highest ratio is 95.73% in F/Y 2005/2006 and the lowest is 81.64% in F/Y 2008/2009.

From mean ratio point of view all three banks NABIL, NIBL and SCBNL has been able to maintain the provision for doubtful debt of at least 50% of total doubtful debt according to the directives of NRB. However, NABIL's ratios are inconsistent than that

of SCBNL. But NIBL has consistent ratio then that of NABIL and SCBNL in comparison.

Concluding the above analysis on average all three banks NABIL, NIBL & SCBNL has been able to meet the standard set by the NRB. Similarly SCBNL has also been able to meet the standard on average and in each of the review year as well. Whereas NIBL has maintained the standard as set by NRB in all of the review years.

iv) Provision for Bad Debt to Total Bad Debt Ratio

The Provision for Bad Debt to Total Bad Debt Ratio shows that whether the Banks under study are complying with the directives issued by the Nepal Rastra Bank or not. This ratio is computed by dividing Provision for Bad Debt by Total Bad Debt (For details see Appendix P).

Table 4.17

Provision for Bad Debt to Total Bad Debt Ratio

F/Y	NABIL	NIBL	SCBNL
2004/2005	97.05	91.79	100.00
2005/2006	94.55	99.01	100.00
2006/2007	86.46	99.08	100.00
2007/2008	88.16	100.00	100.00
2008/2009	91.00	100.00	100.00
Mean	**91.44**	**97.98**	**100**
S.D	**4.38**	**3.49**	**0**
C.V	**0.05**	**0.04**	**0**

Source: Annual Report of NABIL, NIBL and SCBNL

From the above table it seems that the Provision for Bad Debt to Total Bad Debt ratios of both NABIL and NIBL have fluctuating trend during the review period. The highest ratio of NABIL has been observed to be 97.05% in F/Y 2004/2005 and the lowest is 91.00% in F/Y 2008/2009. Whereas the highest ratio of NIBL is 100.00% and the lowest is 91.79% in F/Y 2004/2005. But the ratios of SCBL have been stable to 100% throughout the review period starting from F/Y 2004/2005 to F/Y 2008/ 2009.

From mean ratio point of view only SCBNL has been able to maintain the provision for bad debt of 100% of total bad debt according to the directives of NRB where as other banks NABIL and NIBL have failed to comply with the set standard. Moreover, the ratios of the SCBNL seem to be very much consistent since it has been stable to 100% throughout the review period.

Concluding the above analysis on average only SCBNL has been able to meet the standard set by the NRB, even it has maintained the standard as set by NRB in each of the review year. Whereas, NABIL and NIBL have failed to meet the standard of having provision for bad debt of 100% of the total bad debt.

4.2 Statistical Analysis

Under this topic, some statistical tools such as co-efficient of correlation analysis between different variables, trend analysis of deposit, loan and advances, investment and net profit as well as hypothesis test (t-statistic) are used to achieve the objective of the study.

4.2.1 Co-efficient of Correlation Analysis

Under this heading, Karl Person's co-efficient of correlation is used to find out the relationship between total deposit and loan and advances, total deposit and total investment, Interest earned to Total loan and advances and loan and advances to total assets.

i) Co-efficient of correlation between Total Deposit and Loan and Advances

The Co-efficient of correlation between total deposit and loan and advances measures the degree of relationship between two variables. In our analysis, total deposit is an independent variable(X) and loan and advances is the dependent variable(Y). The main objective of computing 'r' between these two variables is to justify whether total deposit are significantly used as loan and advances in proper way or not.

The following table shows the value of 'r, r^2, P.Er and 6 P.Er between total deposit and loan and advances of NABIL, NIBL and SCBNL during the study period. (For details see Appendix Q1, Q2 and Q3).

Table 4.18

Correlation between Total Deposit and Loan and Advances

Bank	Evaluation Criteria			
	r	**r^2**	**P.Er.**	**6P.Er.**
NABIL	0.83	0.69	0.093	0.56
NIBL	0.84	0.71	0.089	0.53
SCBNL	0.83	0.70	0.092	0.55

Source: Annual Report of NABIL, NIBL and SCBNL

The above table reveals that the coefficient of correlation between deposit and loan and advances of NABIL is 0.83, which we can say that there is the positive relationship between these two variables. Moreover, the value of coefficient of determination (r^2) is 0.69 which means 69% of variation in dependent variable i.e. loan and advances has been explained by the independent variable i.e. total deposit. Similarly, considering the value of 'r' which has been computed as 0.83 and comparing it with six times of probable error which is 0.56, it could be said that the value of 'r' is significant. Moreover it could be said that there is a significant relationship between total deposit and loan and advances of NABIL.

Likewise, coefficient of correlation between deposit and loan and advances of NIBL is 0.84, which we can say that there is the higher positive relationship almost equal to perfect correlation between these two variables. Accordingly, the value of coefficient of determination (r^2) has been computed as 0.71, which reveals that 71% in the dependent variable has been explained by the independent variable. Similarly, considering the 6 P.Er. Which is 0.53, we can say that the relationship between the total deposit and loan and advances is significant.

Similarly, coefficient of correlation between deposit and loan and advances of SCBNL is 0.83, which we can say that there is the positive relationship between these two variables.

Moreover, the value of coefficient of determination (r^2) is 0.70 which means 70% of variation of the dependent variable i.e. loan and advances has been explained by the independent variable i.e. total deposit. Similarly, considering the value of 'r' which has been computed as 0.83 and comparing it with six times of probable error which is 0.55, it could be said that the value of 'r' is significant. Moreover it could be said that there is a significant relationship between total deposit and loan and advances of SCBNL.

From the above analysis, we can conclude that there is the positive relationship between the total deposit and loan and advances of NABIL, NIBL and SCBNL. The relationship between the total deposit and loan and advances is significant in case of all these three banks .It shows good percentage of dependency. It indicates that the increase in loan and advances is due to increase in deposits or successful mobilization of deposit in both three banks and other factors have nominal role in increment of loan and advances as compare to deposit.

ii) Co-efficient of Correlation between Net Income and Loan and Advances

The correlation coefficient between Net Income and loan and advances measures the degree of relationship between these two variables. Here Net Income is dependent variable (X) and loan and advances is the independent variable (Y). The objective of computing 'r' between these two variables is to justify the significance of loan and advances to generate Net Income.

The following table shows the value of 'r, r^2, P.Er and 6 P.Er between Net Income and loan and advances of NABIL, NIBL and SCBL during the study period. (For details see Appendix R1, R2 and R3).

Table 4.19

Correlation between Net Income and Loan and Advances

Bank	Evaluation Criteria			
	r	**r^2**	**P.Er.**	**6P.Er.**
NABIL	0.85	0.71	0.086	0.52
NIBL	0.84	0.70	0.090	0.54
SCBNL	0.84	0.71	0.087	0.52

Source: Annual Report of NABIL, NIBL and SCBNL

The table reveals that the coefficient of correlation between Net Income and loan and advances of NABIL is 0.85, which we can say that there is the positive relationship between these two variables. Moreover, the value of coefficient of determination (r^2) is 0.71 which means 71% of variation in dependent variable i.e. Net Income has been explained by the independent variable i.e. loan and advances. Similarly, considering the value of 'r' which has been computed as 0.85 and comparing it with six times of probable error which is 0.086, it could be said that the value of 'r' is significant. Moreover it could be said that there is a significant relationship between Net Income and loan and advances of NABIL.

Likewise, coefficient of correlation between Net Income and loan and advances of NIBL is 0.84, which we can say that there is the positive relationship between these two variables. Accordingly, the value of coefficient of determination (r^2) has been computed as 0.70, which reveals that 70% in the dependent variable has been explained by the independent variable. Similarly, considering the 6 P.Er. Which is 0.54, we can say that the relationship between the Net Income and loan and advances is significant in case of NIBL.

Similarly, coefficient of correlation between Net Income and loan and advances of SCBNL is 0.84, which we can say that there is the positive relationship between these two variables. Moreover, the value of coefficient of determination (r^2) is 0.71, which means 71% of variation of the dependent variable i.e. Net Income has been explained by the independent variable i.e. loan and advances. Similarly, considering the value of 'r' which has been computed as 0.84 and comparing it with six times of probable error which is 0.087, it could be said that the value of 'r' is significant. Moreover it could be said that there is a significant relationship between Net Income and loan and advances of SCBL due to the value of 'r' is higher than six times P.Er. i.e. 0.84>0.52.

From the above analysis, we can conclude that there is the positive relationship between the Net Income and loan and advances of NABIL, NIBL and SCBNL. The relationship

between the Net Income and loan and advances is significant in case of all these three banks. However, the value of r^2 is different in each case. In case of NABIL and SCBNL the value of r^2 comparatively high than that of NIBL, but yet shows good percentage of dependency.

iii) Correlation between Interest Earned and Loan and Advances

The correlation coefficient between interests earned and loan and advances measures the degree of relationship between these two variables. Here interest earned is dependent variable (X) and loan and advances is the independent variable (Y). The objective of computing 'r' between these two variables is to justify the significance of loan and advances to earn interest.

The following table shows the value of 'r, r^2, P.Er and 6 P.Er between interest earned and loan and advances of NABIL, NIBL and SCBNL during the study period. (For details see Appendix S1, S2 and S3).

Table 4.20

Correlation between Interest Earned to Loan and Advances

Bank	Evaluation Criteria			
	r	**r^2**	**P.Er.**	**6P.Er.**
NABIL	0.84	0.71	0.089	0.53
NIBL	0.84	0.71	0.087	0.52
SCBNL	0.84	0.71	0.088	0.53

Source: Annual Report of NABIL, NIBL and SCBNL

The table reveals that the coefficient of correlation between interest earned and loan and advances of NABIL is 0.84, which we can say that there is the positive relationship between these two variables. Moreover, the value of coefficient of determination (r^2) is 0.71 which means 71% of variation in dependent variable i.e. interest earned has been explained by the independent variable i.e. loan and advances. Similarly, considering the value of 'r' which has been computed as 0.84 and comparing it with six times of probable error which is 0.53, it could be said that the value of 'r' is significant. Moreover it could be said that there is a significant relationship between interest earned and loan and advances of NABIL.

Likewise, coefficient of correlation between interest earned and loan and advances of NIBL is 0.84, which we can say that there is the higher positive relationship almost equal to perfect correlation between these two variables. Accordingly, the value of coefficient of determination (r^2) has been computed as 0.71, which reveals that 71% in the dependent variable has been explained by the independent variable. Similarly, considering the 6 P.Er. Which is 0.52, we can say that the relationship between the interest earned and loan and advances is significant.

Similarly, coefficient of correlation between interest earned and loan and advances of SCBNL is 0.84, which we can say that there is the positive relationship between these two variables. Moreover, the value of coefficient of determination (r^2) is 0.71, which means 71% of variation of the dependent variable i.e interest earned has been explained

by the independent variable i.e. loan and advances. Similarly, considering the value of 'r' which has been computed as 0.84 and comparing it with six times of probable error which is 0.53, it could be said that the value of 'r' is not significant. Moreover it could be said that there is a no significant relationship between interest earned and loan and advances of SCBL due to the value of 'r' is lower than six times P.Er. i.e. 0.88<1.68.

From the above analysis, we can conclude that there is the positive relationship between the interest earned and loan and advances of NABIL, NIBL and SCBNL. The relationship between the interest earned and loan and advances is significant to NABIL , NIBL & SCBNL . The value of r^2 is similar in each case. In all three banks NABIL, NIBL and SCBNL the value of r^2 is same, it shows good percentage of dependency. It indicates that the increase in interest income is due to increase in loan and advances and other factors have nominal role in increment of as compare to loan and advances.

iv) Correlation between Non performing Loan and Loan & Advances

The correlation coefficient between NPL and loan and advances measures the degree of relationship between these two variables. Here NPL is the dependent variable (X) and loan and advances is the independent variable (Y). The objective of computing 'r' between these two variables is to justify how a unit increment in loan and advances affect in the unit of non-performing loan.

The following table shows the value of 'r, r^2, P.Er and 6 P.Er between NPL and loan and advances of NABIL, NIBL and SCBL during the study period. (For details see Appendix T1, T2 and T3)

Table 4.21

Correlation between Non performing Loan and Loan & Advances

Bank	Evaluation Criteria			
	r	**r^2**	**P.Er.**	**6P.Er.**
NABIL	0.85	0.73	0.083	0.50
NIBL	0.84	0.71	0.088	0.53
SCBNL	0.86	0.73	0.080	0.48

Source: Annual Report of NABIL, NIBL and SCBNL

The above table reveals that the coefficient of correlation between NPL and loan and advances of NABIL is 0.85, which we can say that there is the positive relationship between these two variables. Moreover, the value of coefficient of determination (r^2) is 0.73 which means 73% of variation in dependent variable i.e. NPL has been explained by the independent variable i.e. loan and advances. Similarly, considering the value of 'r' which has been computed as 0.85 and comparing it with six times of probable error which is 0.50, it could be said that the value of 'r' is insignificant. Moreover it could be said that there is a significant relationship between NPL and loan and advances of NABIL since 0.81>0.50.

Likewise, coefficient of correlation between NPL and loan and advances of NIBL is 0.84, which we can say that there is the positive relationship between these two variables. Accordingly, the value of coefficient of determination (r^2) has been computed as 0.71, which reveals that 71% in the dependent variable has been explained by the independent variable. Similarly, considering the 6 P.Er. Which is 0.53, we can say that the relationship between the NPL and loan and advances is significant.

Similarly, coefficient of correlation between NPL and loan and advances of SCBNL is 0.86, which we can say that there is the negative relationship between these two variables. Moreover, the value of coefficient of determination (r^2) is 0.73, which means 73% of variation of the dependent variable i.e. NPL has been explained by the independent variable i.e. loan and advances. Similarly, considering the value of 'r' which has been computed as 0.86 and comparing it with six times of probable error which is 0.48, it could be said that the value of 'r' is significant. Moreover it could be said that there is a significant relationship between NPL and loan and advances of SCBNL due to the value of 'r' is greater than six times P.Er. i.e. 0.86<0.48.

From the above analysis, we can conclude that there is the positive relationship between the NPL and loan and advances of NABIL, NABIL and SCBNL which implies that NPL has been significant. Likewise, there is a significant relationship between the NPL and loan and advances of NABIL, NIBL and SCBNL.

4.2.2 Trend Analysis and Projection for Next Five Years

The objective of this analysis is to analyze the trend of deposit collection, its utilization and net profit of NABIL, NIBL and SCBNL. Granting loan and advances and investing some of the fund in government securities, share and debenture of other companies by the commercial banks is the utilization of deposit. The topic analyzes the trend of loan and advances, deposit, net profit and Non Performing Loan are forecasted for next five years.

The projections are based on the following assumption.

- The main assumption is that other things will remain unchanged.
- The forecast will be true only when the limitation of least square method is carried out.
- The bank will run in present position
- The economy will remain in the present stage.
- Nepal Rastra Bank will not change its guidelines to commercial banks.

i) Trend value of Loan & Advances

The following table shows the trend value of loan and advances for 10 years mid-July 2005 to 2014 of NABIL, NIBL and SCBL. (For details see Appendix U1, U2and U3).

Table 4.22

Trend Value of Loan & Advances of NABIL, NIBL and SCBNL (2005-2014)

(Rs in Millions)

Year	Trend Value of NABIL	Trend Value of NIBL	Trend Value of SCBNL
2005	9111.89	7279.38	7824.67
2006	13356.89	13963.05	9410.30
2007	17601.90	20646.72	10995.92
2008	21846.90	27330.38	12581.55
2009	26091.90	34014.05	14167.18
2010	30336.91	40697.72	15752.81
2011	34581.91	47381.39	17338.43
2012	38826.91	54065.06	18924.06

2013	43071.92	60748.73	20509.69
2014	47316.92	67432.40	22095.32

Source: Annual Report of NABIL, NIBL and SCBNL

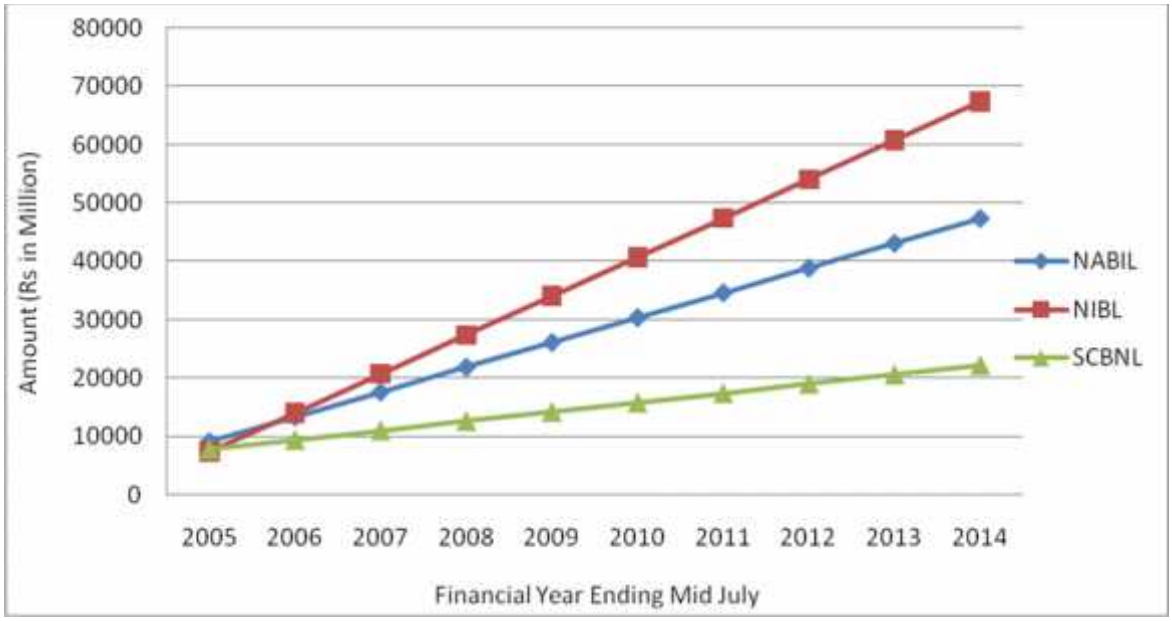
The above table reveals the trend value of loan and advances of NABIL, NIBL and SCBNL are in increasing trend. If other thing remains the same, loan and advances of NABIL in mid-July 2014 will be Rs. 47316.92 million. Similarly, NIBL's loan and advances for mid-July 2014 has been forecasted to be Rs.67432.40 million and SCBNL's loan and advances for mid-July 2014 has been forecasted to be Rs.22095.32 million.

From the above analysis, it is clear that NIBL's utilization of deposit in term of loan and advances is comparatively higher than that of NABIL and SCBNL.

The calculated trend values of loan and advances of NABIL, NIBL and SCBNL are fitted in the trend lines given as follows:

Figure 4.9

Trend value of Loan and Advances of NABIL, NIBL and SCBNL (2005-2014)



ii) Trend value of Total Deposit

Under this title, the trend values of total deposit of NABIL, NIBL and SCBNL for five years from mid-July 2005 to 2009 and forecast for five years from 2009 to 2014.

The following table shows the trend value of Total Deposit for 10 years from mid-July 2005 to 2014 of NABIL, NIBL and SCBL. (For details see Appendix V1, V2and V3).

Table 4.23

Trend value of Total Deposit of NABIL, NIBL and SCBNL (2005-2014)

(Rs in Millions)

Year	Trend Value of NABIL	Trend Value of NIBL	Trend Value of SCBNL
2005	13689.73	11681.82	7824.67
2006	19498.83	19722.97	9410.30
2007	25307.92	27764.11	10995.92
2008	31117.01	35805.26	12581.55
2009	36926.11	43846.41	14167.18
2010	42735.20	51887.55	15752.81
2011	48544.30	59928.70	17338.43
2012	54353.39	67969.85	18924.06
2013	60162.48	76011.00	20509.69
2014	65971.58	84052.14	22095.32

Source: Annual Report of NABIL, NIBL and SCBNL

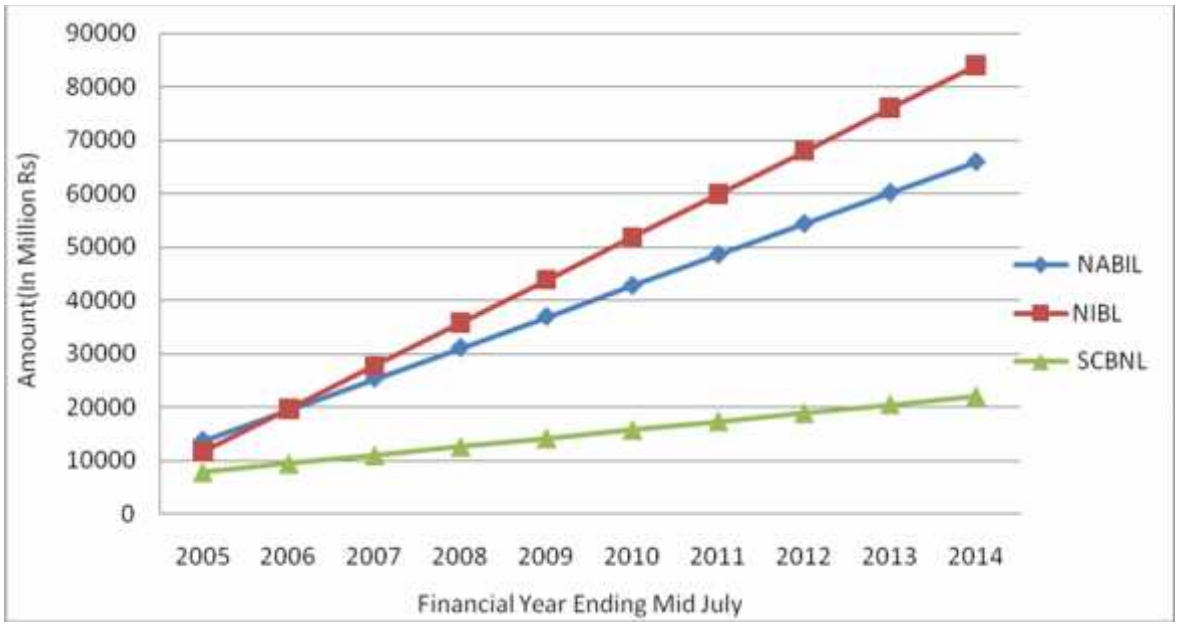
The above table shows that Total Deposit of NABIL, NIBL and SCBNL are in increasing trend. If other thing remains the same the total deposits of NABIL, NIBL and SCBNL for mid-July 2014 has been forecasted to be Rs. 65971.58 million, Rs. 84052.14 million and Rs. 22095.32 million respectively.

The above analysis reveals that the deposit position of NABIL, NIBL and SCBNL are increasing in same proportion. Yet NIBL will be most successful among the three banks to deposit huge amount followed by SCBNL and NABIL.

The calculated trend values of Total Deposit of NABIL, NIBL and SCBNL are fitted in the trend lines given as follows:

Figure 4.10

Trend value of Total Deposit of NABIL, NIBL and SCBNL (2005-2014)



iii) Trend value of Net Profit

Under this topic the net profit of NABIL, NIBL and SCBNL has been analyzed for five years from mid-July 2005 to 2009 and forecast for five years from 2009 to 2014.

The following table shows the trend value of Net Profit for 10 years period of time from mid-July 2005 to 2014 of NABIL, NIBL and SCBNL. (For details see Appendix W1, W2and W3).

Table 4.24

Trend value of Net Profit of NABIL, NIBL and SCBNL (2005-2014)

(Rs in Millions)

Year	Trend Value of NABIL	Trend Value of NIBL	Trend Value of SCBNL
2005	494.75	199.66	518.56
2006	608.06	367.97	632.35
2007	721.37	536.29	746.14
2008	834.68	704.60	859.93
2009	947.99	872.91	973.72
2010	1061.31	1041.23	1087.51

2011	1174.61	1209.54	1201.30
2012	1287.91	1377.86	1315.09
2013	1401.22	1546.17	1428.88
2014	1514.53	1714.48	1542.67

Source: Annual Report of NABIL, NIBL and SCBNL

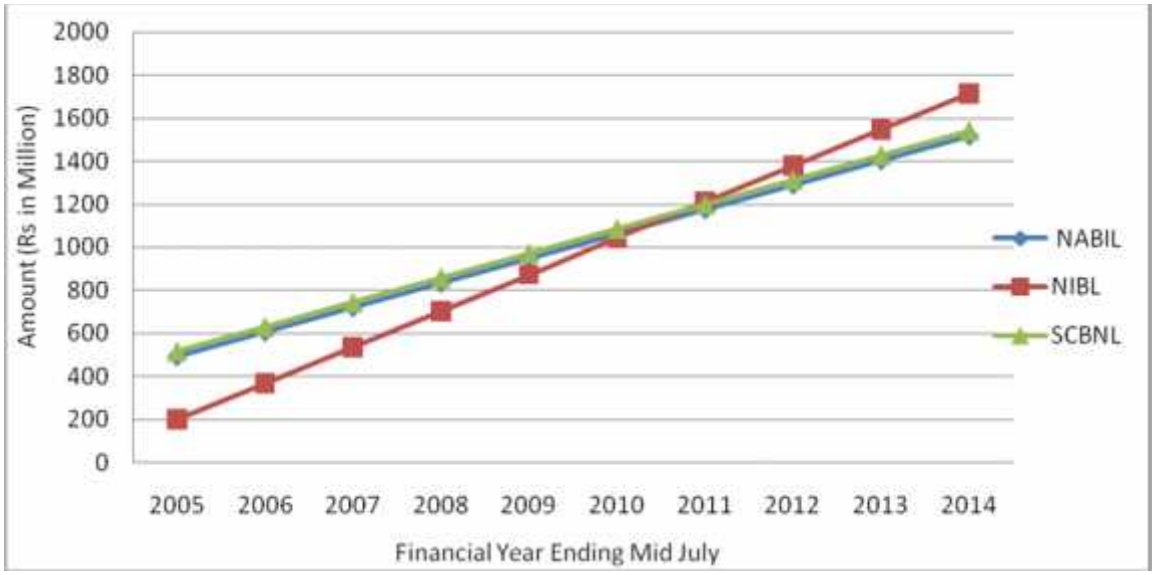
The above table shows that Net Profit of NABIL, NIBL and SCBNL are in increasing trend. If other thing remains the same the Net Profit of NABIL, NIBL and SCBNL for mid-July 2014 has been forecasted to be Rs. 1514.53 million, Rs. 1714.48 million and Rs. 1542.67 million respectively.

The above figures depicts that NIBL's rate of generating net profit is highest among the three banks followed by SCBNL and NIBL. Although SCBNL is ahead of NABIL in generating net profit, NIBL's rate is much higher than SCBNL though.

The calculated trend values of Net Profit of NABIL, NIBL and SCBNL are fitted in the trend lines given as follows:

Figure 4.11

Trend value of Net Profit of NABIL, NIBL and SCBNL (2005-2014)



iv) Trend Analysis of Non Performing Loan (NPL)

Under this topic the Non Performing Loan of NABIL, NIBL and SCBNL has been analyzed for five years from mid-July 2005 to 2009 and forecast for five years from 2009 to 2014.

The following table shows the trend value of Non Performing Loan for 10 years period of time from mid-July 2005 to 2014 of NABIL, NIBL and SCBNL. (For details see Appendix X1, X2and X3).

Table 4.25

Trend Value of NPL of NABIL, NIBL and SCBNL (2005-2014)

(Rs. in Millions)

Year	Trend Value of NABIL	Trend Value of NIBL	Trend Value of SCBNL
2005	150.45	319.33	235.35
2006	164.36	309.44	201.58
2007	178.27	299.74	167.80
2008	192.17	290.05	134.03
2009	206.08	280.35	100.25
2010	219.99	270.66	66.48
2011	233.90	260.96	32.71
2012	247.81	251.27	-1.07
2013	261.72	241.57	-34.84
2014	275.62	231.87	-68.62

Source: Annual Report of NABIL, NIBL and SCBNL

The above table shows that NIBL and SCBNL have decreasing trend in Non-performing loan whereas NABIL has increasing trend in NPL. The average NPL of NABIL is Rs 213.04 million, which is increasing at the rate of Rs 13.91. The average NPL of NIBL is Rs.275.52 million which is decreasing every year at the rate of Rs. 9.89 million. The average NPL of SCBNL is Rs.83.38 million which is decreasing every year at the rate of Rs. 33.77 million.

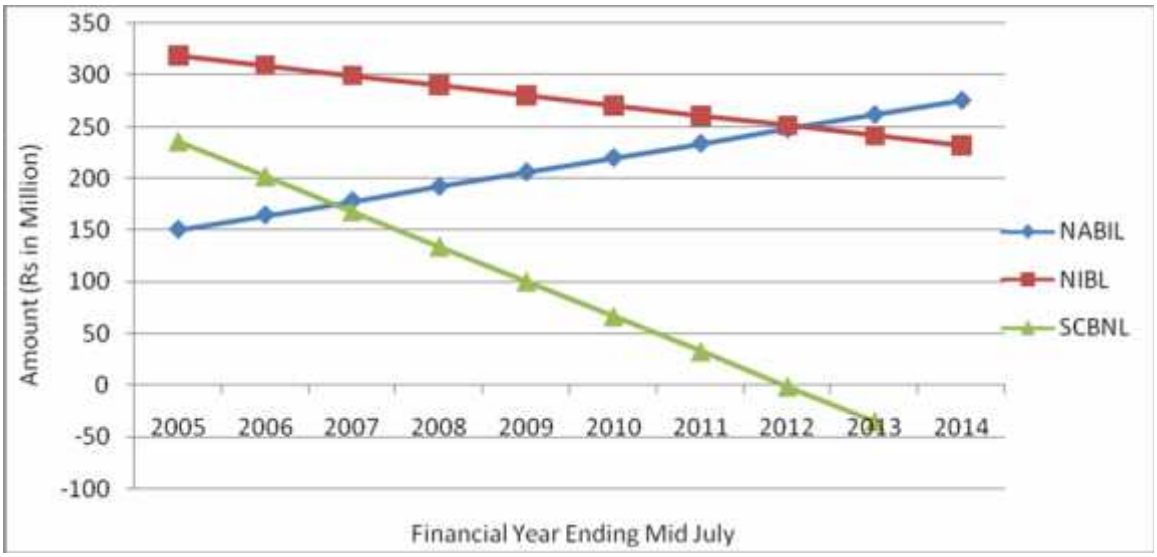
NABIL has significantly high NPL in total volume of loans and advances and it has incremental rate, which NABIL should initiate immediate reform. Whereas NIBL and

SCBNL have decreasing trend in NPL, SCBNL decreasing rate in NPL is much higher than that of NIBL.

The calculated trend values of Non-performing loan of NABIL, NIBL and SCBNL are fitted in the trend lines given as follows:

Figure 4.12

Trend value of NPL of NABIL, NIBL and SCBNL (2005-2014)



4.2.3 Test of Hypothesis

i) Test of hypothesis on loan and advances to total deposit ratio of NABIL, NIBL and SCBNL

Let, loan and advances to total deposit ratio of NABIL, NIBL and SCBNL be X1, X2 and X3.

Where,

Null Hypothesis H_0: $\mu_1 = \mu_2 = \mu_3$ i.e. there is no significant difference in loan and advances to total deposit ratio between the three banks.

Alternative Hypothesis H_1: $\mu_1 \neq \mu_2 \neq \mu_3$ i.e. there is significant difference in loan and advances to total deposit ratio between the three banks.

Grand mean $\bar{X}$ = 61.21(For details see Appendix-Y1).

Sum of square between samples (banks) = 2933.18

Sum of square within samples = 189.25

Test statistic, F =15.50

Critical value: the tabulated value of F at 5% level of significance for 2 and 12 d.f. is 3.89 i.e. $F_{0.05(2, 12)}$=3.89

Decision: since calculated value of F is greater than the tabulated value of F. the null hypothesis H_0 is rejected and hence the alternative hypothesis H_1 is accepted. Therefore, we conclude that there is significance difference in loan and advances to total deposit ratio between the three banks.

ii) Test of hypothesis on Return on loan and advances of NABIL, NIBL and SCBNL

Let, Return on loan and advances of NABIL, NIBL and SCBNL be X1, X2 and X3.

Where,

Null Hypothesis H_0: $\mu_1 = \mu_2 = \mu_3$ i.e. there is no significant difference in return on loan and advances ratio of the three banks.

Alternative Hypothesis H_1: $\mu_1 \neq \mu_2 \neq \mu_3$ i.e. there is significant difference in return on loan and advances ratio of the three banks.

Grand mean $\bar{\bar{X}}$ =4.56 (For details see Appendix-Y2).

Sum of square between samples (banks) =44.53

Sum of square within samples =3.51

Test statistic, F =12.71

Critical value: the tabulated value of F at 5% level of significance for 2 and 12 d.f is 3.89 i.e. $F_{0.05(2, 12)}$=3.89

Decision: since calculated value of F is greater than the tabulated value of F. the null hypothesis H_0 is rejected and hence the alternative hypothesis H_1 is accepted. Therefore, we conclude that there is significance difference in return on loan and advances ratio between the three banks.

4.3 Major Findings of the Study

The major findings of the study are divided on the basis of financial and statistical data of NABIL, NIBL and SCBNL, which are given below:

Liquidity Ratio

- The mean current ratio of SCBNL is computed as 0.14 times which is slightly higher than that of NIBL's 0.12 times and NABIL's 0.10 times. Likewise, variability of ratios of SCBNL is 0.15%, NIBL's is 0.21% and NABIL's is 0.07%. From which we can say that NABIL's ratios are more uniform than that of SCBNL and NIBL in comparison.
- On average of 5 years of review period, cash and bank balance to total deposit ratio of NABIL, NIBL and SCBNL are 6.10%, 12.06% and 7.02% respectively. NIBL's liquidity position is better than that of SCBNL and NABIL. There is also a higher consistency in the ratios of SCBNL followed by NIBL and then NABIL with the lowest consistency in ratios among the three banks.
- The mean ratio of cash and bank balance to current asset ratio of SCBNL is 0.49% which is the lowest among the three banks. NABILL has mean ratio of cash and bank balance to current assets of 0.42%.
- The mean ratio of loan and advances to current asset of NABIL is 6.49% followed by NIBL with 5.99% and then by SCBNL with 2.90% which is the lowest among the three banks. SCBNL has also the lowest consistency in its ratios with 0.15%. Likewise, NIBL has 0.18% and NABIL has 0.21% (which shows the highest consistency among the three banks).

Assets Management Ratio

- The mean ratio of loan and advances to total deposit of NABIL, NIBL and SCBNL are 0.69%, 0.73% and 0.42% respectively. The utilization of Total deposit as loan and advances of NIBL seems to be higher than that of NABIL, whereas SCBNL's utilization of Total deposit as loan and advances is much lesser than that of the other two banks i.e. NABIL and NIBL. Likewise from the perspective of

consistency NIBL has the highest consistency in its ratio with 0.07% followed by SCBNL 0.08% and then NABIL with 0.40%.

- The mean ratio of Total Investment to total deposit of NABIL, NIBL and SCBNL are 0.32%, 0.24% and 1.28% respectively. The utilization of Total deposit as Investment in different types of securities issued by government and other financial and non-financial companies of SCBNL seems to be much higher than that of NABIL and NIBL. The mean ratio of Total Investment to Total deposit ratio of NIBL is reveled as the least among the three banks under study. Likewise from the perspective of consistency SCBNL has the highest consistency in its ratio with 0.03% followed by NIBL with 0.24% and then NABIL with 0.43%.
- The mean ratio of Loan and Advances to total working fund of NABIL, NIBL and SCBNL are 0.59%, 0.64% and 0.37% respectively. NIBL seems to have much higher mean ratio than that of NABIL and SCBNL. Whereas SCBNL has the lowest mean ratio among the three banks under study. Likewise from the perspective of consistency NABIL has the highest consistency in its ratio with 0.05% followed by NIBL with 0.07% and then SCBNL with 0.11%.

Profitability Ratio

- The mean ratio of return on Loan and Advances of NABIL, NIBL and SCBNL are computed as 4.28%, 2.61% and 6.80% respectively. SCBNL seems to have much higher return from loan and advances, followed by NIBL and then NABIL. Likewise from the perspective of consistency in Return on loan and advances ratio NIBL has the highest consistency in its ratio with 0.06% followed by SCBNL with 0.09% and then NABIL with 0.15%.
- The mean ratio of return on Total Working Fund of NABIL, NIBL and SCBNL are computed as 2.55%, 1.68% and 2.48% respectively. NABIL seems to have highest return from total working fund among the three banks, followed by SCBNL and then NIBL. Likewise from the perspective of consistency in Return on total working fund ratio of SCBNL has the highest consistency in its ratio with only 0.02% variation followed by NIBL with 0.05% and then NABIL with 0.16%.

- The mean ratio of Total Interest Earned to Total Loan and Advances of NABIL, NIBL and SCBNL are computed as 9.97%, 8.88% and 13.03% respectively. SCBNL seems to have highest mean ratio among the three banks, followed by NABIL and then NIBL. Likewise from the perspective of consistency, ratios of NABIL have the highest consistency with 0.04% variation in its ratios followed by NIBL with 0.05% and then SCBNL with 0.85%.

Risk Ratio

- Through computing liquidity risk ratio, the liquidity of NABIL, NIBL and SCBNL in terms of average is computed as 6.10%, 11.91% and 7.02% respectively. NIBL's liquidity in terms of average i.e. 11.91% seems to be much higher than that of NABIL's 6.10% and SCBNL's 7.02%. Likewise from the perspective of consistency, ratios of SCBNL have the highest consistency among the banks with 0.20% variation in its ratios followed by NIBL with 0.25% and then by NABIL with 0.43%.
- The credit Risk ratio or Non Performing Loan to Total Loan and Advances ratio of NABIL, NIBL and SCBNL are computed as 1.10%, 1.83%, & 1.69% respectively. The Non Performing Loan with respect to Loan and Advances of NIBL seems to be the highest among the three banks followed by SCBNL and NIBL. Likewise from the perspective of consistency, ratios of NABIL have the highest consistency among the banks with 0.28% variation in its ratios followed by NIBL with 0.51% and then by SCBNL with 0.52%.
- The mean Loan Loss Provision to Loan and Advances ratio of NABIL, NIBL and SCBNL are computed as 2.36%, 2.56% and 2.49% respectively. NIBL's Loan loss provision with respect to its Total Loan and Advances seems to be higher than that of NABIL and SCBNL. Likewise from the perspective of consistency, ratios of NIBL have the highest consistency among the banks with 0.29% variation in its ratios followed by NABIL with 0.32% and then by SCBNL with 0.33%.

Adequacy of Loan Loss Provisioning

- On average NABIL, NIBL and SCBNL have been able to maintain the pass loan provision of at least 1% of the total pass loan as according to the NRB directives. However the consistency in ratios of each bank has been different. NIBL have the highest consistency in its ratio among the banks with 29% variation in its ratios followed by NABILL with 32% and then by SCBNL with 33%.
- On average only NABIL has been able to meet the standard set by the NRB even though it has failed to maintain the standard as set by NRB in each of the review year. Whereas NIBL and SCBNL has maintained the standard as set by NRB in some of the review years but in aggregate both of the banks have failed to meet the standard of having substandard loan loss provision at least 25% of the total substandard loan.
- Similarly SCBNL has also been able to meet the standard on average and in each of the review year as well. Whereas NIBL has maintained the standard as set by NRB in some of the review years but in aggregate NIBL has failed to meet the standard of having provision for doubtful debt of at least 50% of the total doubtful debt.
- On average only SCBNL has been able to meet the standard set by the NRB, even it has maintained the standard as set by NRB in each of the review year. Whereas, NABIL and NIBL have failed to meet the standard of having provision for bad debt of 100% of the total bad debt not even in single year of the review period.

Co-efficient of Correlation Analysis

- Coefficient of correlation between **total deposit and loan and advances** of NABIL, NIBL and SCBNL has a positive relationship. The relationship between the total deposit and loan and advances is significant in case of all these three banks. However, the value of r^2 is different in either case.. It indicates that the increase in loan and advances is due to increase in deposits or successful mobilization of deposit in both three banks and other factors have nominal role in increment of loan and advances as compare to deposit.

- There is a positive correlation between the **Net Income and loan and advances** of NABIL, NIBL and SCBNL. The relationship between the Net Income and loan and advances is significant in case of all these three banks. However, the value of r^2 is different in each case. In case of NABIL and SCBNL the value of r^2 same, but yet shows good percentage of dependency.
- There is the positive correlation between the **interest earned and loan and advances** of NABIL, NIBL and SCBNL. The relationship between the interest earned and loan and advances is significant in case of NABIL, NIBL and SCBNL. The value of r^2 is same in each case. In case of NABIL, NIBL and SCBNL the value of r^2 is same, but yet shows good percentage of dependency. It indicates that the increase in interest income is due to increase in loan and advances and other factors have nominal role in increment of as compare to loan and advances.
- There is the negative correlation between the **NPL and loan and advances** of NABIL and SCBNL which implies that NPL has been decreasing with the increment in loan and advances due to effective recovery of non-performing loan. Similarly the relationship between the NPL and loan and advances is positive in case of NIBL which implies that NPL of NIBL has been increasing with the increment in loan and advances. Likewise, there is insignificant relationship between the NPL and loan and advances of NABIL and SCBNL, however, there is a significant relationship between the NPL and loan and advances of NIBL.

Trend Analysis

- The trend value of **loan and advances** of NABIL, NIBL and SCBNL are in increasing trend. If other thing remains the same, loan and advances of NABIL in mid-July 2014 will be Rs. 47316.92 million. Similarly, NIBL's loan and advances for mid-July 2014 has been forecasted to be Rs.67432.40 million and SCBNL's loan and advances for mid-July 2014 has been forecasted to be Rs.22095.32 million. This analysis, clear's that NIBL's utilization of deposit in term of loan and advances is comparatively higher than that of NABIL and SCBNL.
- The trend value of **Total Deposit** of NABIL, NIBL and SCBNL are in increasing trend. If other thing remains the same the total deposits of NABIL, NIBL

and SCBNL for mid-July 2014 has been forecasted to be Rs 65971.58 million, Rs. 84052.14 million and Rs. 22095.32 million respectively. The analysis also reveals that the deposit position of NABIL, NIBL and SCBNL are increasing in same proportion. Yet NIBL will be most successful among the three banks to deposit huge amount followed by NABIL and. SCBNL

- The trend value of **Net Profit** of NABIL, NIBL and SCBNL are in increasing trend. If other thing remains the same the Net Profit of NABIL, NIBL and SCBNL for mid-July 2014 has been forecasted to be Rs. 1514.53 million, Rs1714.48 million and Rs. 1542.67 million respectively. NIBL's rate of generating net profit is highest among the three banks followed by SCBNL and NABIL. Although SCBNL is ahead of NIBL in generating net profit, NIBL's rate is much higher than SCBNL though.
- The trend value **Non-performing loan** of NIBL and SCBNL is in decreasing trend, whereas NABIL has increasing trend in NPL.

Test of Hypothesis

- There is significance difference between mean ratio of loan and advances to total deposit of NABIL, NIBL and SCBNL.
- There is significance difference between mean ratio of return on loan and advances of NABIL, NIBL and SCBNL.

CHAPTER-V

SUMMARY, CONCLUSION AND RECCOMENDATIONS

The last chapter of this study is the conclusions and recommendations developed from the comparative analysis of various aspects of the credit of the commercial banks by using some important financial as well as statistical tools. After completing the basic analysis required for the study the final and the most important tasks of the researcher is to summarize the study and recommend for the future importance. I am hopeful that the study that I have conducted would be meaningful to the top management of the concerned banks to initiate action and to achieve the desired results.

5.1 Summary and Conclusion

From the analysis made during the study period of the concerned sample banks, certain conclusion has been derived after the financial as well as statistical tools have been measured on behalf of different aspect of the Credit Management of the concerned banks under study.

The liquidity position of NABIL, NIBL and SCBNL have been satisfactory, the liquidity of each bank have been different though. On average the liquidity position of NABIL is not as good as that of NIBL and SCBNL but yet satisfactory.

Likewise, the liquidity position of NIBL is comparatively better than that of NABIL and SCBNL. It has the highest average Cash and Bank Balance to Total Deposit Ratio, Cash and Bank Balance to Current Assets ratio and Loan and Advances to Current Assets Ratio but . Overall NIBL shows that it is in good position to meet the daily cash requirement; however. The liquidity ratios of NIBL are also stable and consistent which indicates the stable policy of NIBL regarding the liquidity in comparison to NABIL and SCBNL.

Likewise, the liquidity of SCBNL has been moderate with comparison to NIBL and NABIL, but it has the highest current assets ratio on average among the three banks.

On the basis of Assets management ratio it has been concluded that NIBL is in better position than NABIL and SCBNL though on average NIBL has the lowest total investment to total deposit ratio in comparison to NABIL and SCBNL. NIBL has successfully utilized its deposit on loan and advances but has lower investment in other sectors due to which its total investment to total deposit ratio has been the lowest among the three banks but yet occupies a better position among the banks since it has the highest loan and advances to total deposit ratio and loan and advances to total working fund ratio.

Likewise compare to other two banks NABIL has moderate average loan and advances to total deposit ratio, total investment to total deposit ratio and loan and advances to total working fund ratio. The Assets management ratio of NABIL has been satisfactory according to the analysis made.

Likewise compare to NABIL and NIBL, SCBNL has the lowest average Loan and advances to total deposit ratio, loan and advances to total working fund ratio, but it has the highest total investment to total deposit ratio.

On the basis of the analysis of profitability, in comparison among the banks NABIL has the highest return on total working fund on average but in case of return on loan and advances and total interest earned to total loan and advances ratio it is behind SCBNL but ahead NIBL.

Likewise SCBNL has highest return on loan and advances and total interest earned to total loan and advances ratio on average but it has only a moderate return on total working fund ratio.(higher than that of NIBL and slightly lower than NABIL).
According to the analysis, on average NIBL has the lowest return on loan and advances, total interest earned to total loan and advances ratio and return on total working fund among the three banks under study.

On the basis of the analysis of risk ratio, conclusively, from the view point of liquidity risk we can say that NIBL has maintained higher liquidity which would obviously results lower profit than SCBNL and NABIL. Whereas NABIL has the least liquidity among the three banks with stable liquidity risk ratio, which means NABIL has taken higher risk than the other two banks under study for the higher profit.

Similarly from the view point of Credit risk and provisioning against the credit risk NIBL has taken the higher credit risk with moderate credit risk provisioning followed by SCBNL with second highest credit risk and the highest provisioning against the NPL among the banks under study. Then NABIL which seems to be in the safe side with least NPL to total loan and advances ratio as compare to NIBL and SCBNL. NABIL has also the least loan loss provisioning to total loan and advances ratio among the three banks under study.

On the basis of coefficient of correlation, there is a positive correlation between Total Deposit and Loan and Advances, Net Income and Loan and Advances, Interest earned and Loan and Advances of NABIL, NIBL and SCBNL. However, the correlation between NPL and Loan and Advances of NIBL and SCBNL is negative which implies that NPL has been decreasing with the increment in loan and advances due to effective recovery of non-performing loan, but in case of NABIL it is positive which implies that NPL of NABIL has been increasing with the increment in loan and advances. There is a significant relationship between Total Deposit and Loan and Advances, Net Income and Loan and Advances of the three banks. The relationship between Interest earned and Loan and Advances of NABILNIBL and SCBNL is significant. Likewise there is significant relationship between the NPL and loan and advances of NABIL NIBL and SCBNL.

On the basis of Trend analysis it can be concluded that the trend value of Loan and Advances, Total Deposit and Net Profit of NABIL, NIBL and SCBNL is in increasing

trend. However the trend value of NPL of NIBL and SCBNL is decreasing whereas it is increasing in case of NABIL.

NABIL has significantly high NPL in total volume of loans and advances and it has incremental rate, which NABIL should initiate immediate reform. Whereas NIBL and SCBNL have decreasing trend in NPL, SCBNL's decreasing rate in NPL is much higher than that of NIBL.

The both hypothesis test of mean Loan and advances to total deposit ratio and mean Return on Loan and Advances ratio between NABIL, NIBL and SCBNL shows that there is significant difference between these ratios of the banks under study.

5.2 Recommendation

Recommendations are the final output of the whole study. It helps to convey positive information and proper way of improvement to concern banks NABIL, NIBL and SCBNL and as well as other interest researcher in upcoming days. Various analyses have been done until this stage. On the basis of analysis and finding of the study, following suggestion and recommendation can be advanced to overcome weakness, inefficiency and satisfactory improvement policy of NABIL, NIBL and SCBNL.

- The cash and bank balance to total deposit measures the availability of bank's highly liquid or immediate funds to meet its unanticipated calls on all types of deposits. The cash and bank balance of NIBL with respect to deposit is better against the readiness to serve its customer's deposit than NABIL and SCBNL. It implies that better liquidity position of NIBL. In contrast, a high ratio of non-earning cash and bank balance may unfit, which indicates the bank's unavailability to invest its fund in income generation areas. Thus NIBL is suggested to invest in more productive sectors like short-term marketable securities, treasury bills etc. insuring enough liquidity which will help the bank to improve its profitability.
- To get success in competitive banking environment, depositor's money must be utilized as loan and advances. If it is neglected, then it could results to liquidity crisis in the bank and one of the main reasons for the bank's failure. It is found that NIBL's loan and advances to total deposit ratio is comparatively the highest among

the three banks followed by SCBNL, then NABIL. NABIL's ratios seems much lower than that of NIBL and SCBNL so it is recommended that NABIL should follow liberal policy, invest more and more percentage of total deposit in loan and advances and maintain more stability on the credit policy.

- There is highly positive correlation between the Total deposit and loan and advances of NABIL, NIBL and SCBNL. So it is recommended for the banks under study especially for NIBL to increase their total deposit to make more loan and advances, since correlation between the Total deposit and loan and advances of NIBL is much higher compare to NABIL and SCBNL.
- The loan loss provisioning and high volume of Non-performing loans of NIBL is in increasing trend which is certainly not sign of efficient credit management. Where as it is decreasing in case of NABIL and SCBNL. However NABIL's NPL is decreasing in higher rate than that of SCBNL. It is recommended to NIBL to adopt sound credit collection policy and other two banks to maintain and implement its credit policy even more efficiently, which would help them to decrease loan loss provision and non-performing loan. The policy should ensure rapid identification of delinquent loans, immediate contact with borrowers and continual follow-up until a loan recovery. The recovery of loan is the most challenging job for the bank. Therefore the banks must embrace a strengthen credit management.
- The banks under study are also recommended to strictly follow the NRB directives regarding the loan classification. Since it is found that the banks under study has not been able to maintain certain standards as set by the NRB.
- The banks are recommended to adopt innovative approach to marketing. In the light of growing competition in the banking sector, the business of the bank should be customer oriented. It should strengthen and activate its marketing function, as it is an effective tool to attract and retain the customers. For the purpose banks should develop and innovative approach to bank marketing and formulate new strategies of serving customers in a more convenient and satisfactory way by optimally utilizing the modern technology and offering new facilities to the customers at competitive prices.

- Banks should avoid extending credits merely based on oral information presented at the credit interview. Historical, financial and trade records as well as realistic cash flow projection should be obtained for proper assessment of the proposal.
- Banks should also regularly follow the credit customer to confirm that whether the customers have utilized their credit for the same purpose committed at the time of taking credit from the bank.
- There has been communication gap between the banks even though they are on the same business of banking. Banks need to develop a mechanism for inter-bank transparency, a committee which will help the better understanding of the various types of risk, disseminate information regarding bad debts and frauds cases, minimize customer misleads and practice fair competition.

Timely and effectively implementation of these corrective actions would lead the bank towards the path of its continued success and future progression

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APPENDICES

APPENDIX - A
Current Ratio

NABIL			(Rs. In Million)
F/Y	**Current Assets (Rs)**	**Current Liabilities(Rs)**	**Ratio (Times)**
2004/2005	1427.81	15528.69	0.09
2005/2006	2365.14	20454.98	0.12
2006/2007	1963.36	25196.34	0.08
2007/2008	4623.50	34695.56	0.13
2008/2009	3925.40	40737.16	0.10

NIBL			(Rs. In Million)
F/Y	**Current Assets (Rs)**	**Current Liabilities(Rs)**	**Ratio (Times)**
2004/2005	1480.48	15093.96	0.10
2005/2006	2406.52	19914.70	0.12
2006/2007	2804.48	25712.72	0.11
2007/2008	3754.94	36186.52	0.10
2008/2009	7918.00	49102.96	0.16

SCBNL			(Rs. In Million)
F/Y	**Current Assets (Rs)**	**Current Liabilities(Rs)**	**Ratio (Times)**
2004/2005	3370.81	20311.16	0.17
2005/2006	2578.74	24022.19	0.11
2006/2007	3782.17	26480.34	0.14
2007/2008	4247.78	30843.24	0.14
2008/2009	5192.71	37535.00	0.14

APPENDIX - B

Cash & Bank Balance to Total Deposit

NABIL			**(Rs. In Million)**
F/Y	**Cash & Bank Balance (Rs)**	**Total Deposit(Rs)**	**Ratio (%)**
2004/2005	559.38	14586.61	3.83
2005/2006	630.24	19347.40	3.26
2006/2007	1399.83	23342.29	6.00
2007/2008	2671.14	31915.05	8.37
2008/2009	3372.51	37348.26	9.03

NIBL			**(Rs. In Million)**
F/Y	**Cash & Bank Balance (Rs)**	**Total Deposit(Rs)**	**Ratio (%)**
2004/2005	1340.48	14254.57	9.40
2005/2006	2336.52	18927.31	12.34
2006/2007	2441.51	24488.86	9.97
2007/2008	3754.94	34451.73	10.90
2008/2009	7918.00	46698.10	16.96

SCBNL			**(Rs. In Million)**
F/Y	**Cash & Bank Balance (Rs)**	**Total Deposit(Rs)**	**Ratio (%)**
2004/2005	1111.12	19363.47	5.74
2005/2006	1276.24	23061.03	5.53
2006/2007	2021.02	24647.02	8.20
2007/2008	2050.24	29744.00	6.89
2008/2009	3137.16	35871.72	8.75

APPENDIX – C
Cash and Bank Balance to Current Assets Ratio

NABIL			(Rs. In Million)
F/Y	**Cash & Bank Balance (Rs)**	**Current Assets (Rs)**	**Ratio (%)**
2004/2005	559.38	1427.81	0.39
2005/2006	630.24	2365.14	0.27
2006/2007	1399.83	1963.36	0.71
2007/2008	2671.14	4623.50	0.58
2008/2009	3372.51	3925.40	0.86

NIBL			(Rs. In Million)
F/Y	**Cash & Bank Balance (Rs)**	**Current Assets (Rs)**	**Ratio (%)**
2004/2005	1340.48	15093.96	0.91
2005/2006	2336.52	19914.70	0.97
2006/2007	2441.51	25712.72	0.87
2007/2008	3754.94	36186.52	1.00
2008/2009	7918.00	49102.96	1.00

SCBNL			(Rs. In Million)
F/Y	**Cash & Bank Balance (Rs)**	**Current Assets (Rs)**	**Ratio (%)**
2004/2005	1111.12	3370.81	0.33
2005/2006	1276.24	2578.74	0.49
2006/2007	2021.02	3782.17	0.53
2007/2008	2050.24	4247.78	0.48
2008/2009	3137.16	5192.71	0.60

APPENDIX - D
Loan and Advances to Current Asset Ratio

NABIL			(Rs. In Million)
F/Y	**Loan & Advances (Rs)**	**Current Assets (Rs)**	**Ratio (%)**
2004/2005	10586.17	1427.81	7.41
2005/2006	12922.54	2365.14	5.46
2006/2007	15545.78	1963.36	7.92
2007/2008	21365.05	4623.50	4.62
2008/2009	27589.93	3925.40	7.03

NIBL			(Rs. In Million)
F/Y	**Loan & Advances (Rs)**	**Current Assets (Rs)**	**Ratio (%)**
2004/2005	9933.08	15093.96	6.71
2005/2006	12776.21	19914.70	5.31
2006/2007	17286.43	25712.72	6.16
2007/2008	26996.65	36186.52	7.19
2008/2009	36241.21	49102.96	4.58

SCBNL			(Rs. In Million)
F/Y	**Loan & Advances (Rs)**	**Current Assets (Rs)**	**Ratio (%)**
2004/2005	8143.21	3370.81	2.42
2005/2006	8935.42	2578.74	3.47
2006/2007	10502.64	3782.17	2.78
2007/2008	13718.60	4247.78	3.23
2008/2009	13679.76	5192.71	2.63

APPENDIX - E
Loan and Advances to Total Deposit Ratio

NABIL			(Rs. In Million)
F/Y	**Loan & Advances (Rs)**	**Total Deposit (Rs)**	**Ratio (%)**
2004/2005	10586.17	14586.61	0.73
2005/2006	12922.54	19347.40	0.67
2006/2007	15545.78	23342.29	0.67
2007/2008	21365.05	31915.05	0.67
2008/2009	27589.93	37348.26	0.74

NIBL			(Rs. In Million)
F/Y	**Loan & Advances (Rs)**	**Total Deposit (Rs)**	**Ratio (%)**
2004/2005	9933.08	14254.57	0.70
2005/2006	12776.21	18927.31	0.68
2006/2007	17286.43	24488.86	0.71
2007/2008	26996.65	34451.73	0.78
2008/2009	36241.21	46698.10	0.78

SCBNL			(Rs. In Million)
F/Y	**Loan & Advances (Rs)**	**Total Deposit (Rs)**	**Ratio (%)**
2004/2005	8143.21	19363.47	0.42
2005/2006	8935.42	23061.03	0.39
2006/2007	10502.64	24647.02	0.43
2007/2008	13718.60	29744.00	0.46
2008/2009	13679.76	35871.72	0.38

APPENDIX - F
Total Investment to Total Deposit Ratio

NABIL			(Rs. In Million)
F/Y	**Total Investment (Rs)**	**Total Deposit (Rs)**	**Ratio (%)**
2004/2005	4267.23	14586.61	0.29
2005/2006	6178.53	19347.40	0.32
2006/2007	8945.31	23342.29	0.38
2007/2008	9939.77	31915.05	0.31
2008/2009	10826.38	37348.26	0.29

NIBL			(Rs. In Million)
F/Y	**Total Investment (Rs)**	**Total Deposit (Rs)**	**Ratio (%)**
2004/2005	3934.19	14254.57	0.28
2005/2006	5602.87	18927.31	0.30
2006/2007	6505.68	24488.86	0.27
2007/2008	6874.02	34451.73	0.20
2008/2009	7399.81	46698.10	0.16

SCBNL			(Rs. In Million)
F/Y	**Total Investment (Rs)**	**Total Deposit (Rs)**	**Ratio (%)**
2004/2005	9702.55	19363.47	0.50
2005/2006	12847.54	23061.03	0.56
2006/2007	13553.23	24647.02	0.55
2007/2008	13902.82	29744.00	0.47
2008/2009	20236.12	35871.72	0.56

APPENDIX – G

Loan and Advances to Total Working Fund Ratio

NABIL			**(Rs. In Million)**
F/Y	**Loan And Advances (Rs)**	**Total Working Fund (Rs)**	**Ratio (%)**
2004/2005	10586.17	17064.08	0.62
2005/2006	12922.54	22329.97	0.58
2006/2007	15545.78	27253.39	0.57
2007/2008	21365.05	37132.76	0.58
2008/2009	27589.93	43867.40	0.63

NIBL			**(Rs. In Million)**
F/Y	**Loan And Advances (Rs)**	**Total Working Fund (Rs)**	**Ratio (%)**
2004/2005	9933.08	16063.54	0.62
2005/2006	12776.21	21330.14	0.60
2006/2007	17286.43	27590.84	0.63
2007/2008	26996.65	38873.31	0.69
2008/2009	36241.21	53010.80	0.68

SCBNL			**(Rs. In Million)**
F/Y	**Loan And Advances (Rs)**	**Total Working Fund (Rs)**	**Ratio (%)**
2004/2005	8143.21	21893.58	0.37
2005/2006	8935.42	25776.33	0.35
2006/2007	10502.64	28596.69	0.37
2007/2008	13718.60	33335.79	0.41
2008/2009	13679.76	40587.47	0.34

APPENDIX – H

Return on Loan and Advances Ratio

NABIL			(Rs. In Million)
F/Y	**Net Profit (Rs)**	**Loan & Advances (Rs)**	**Ratio (%)**
2004/2005	520.11	10586.17	4.91
2005/2006	635.26	12922.54	4.92
2006/2007	673.96	15545.78	4.34
2007/2008	746.47	21365.05	3.49
2008/2009	1031.05	27589.93	3.74

NIBL			(Rs. In Million)
F/Y	**Net Profit (Rs)**	**Loan & Advances (Rs)**	**Ratio (%)**
2004/2005	232.15	9933.08	2.34
2005/2006	350.54	12776.21	2.74
2006/2007	501.40	17286.43	2.90
2007/2008	696.73	26996.65	2.58
2008/2009	900.62	36241.21	2.49

SCBNL			(Rs. In Million)
F/Y	**Net Profit (Rs)**	**Loan & Advances (Rs)**	**Ratio (%)**
2004/2005	536.24	8143.21	6.59
2005/2006	658.76	8935.42	7.37
2006/2007	691.67	10502.64	6.59
2007/2008	818.92	13718.60	5.97
2008/2009	1025.11	13679.76	7.49

APPENDIX - I
Return on Total Working Fund Ratio

NABIL			(Rs. In Million)
F/Y	**Net Profit (Rs)**	**Total Working Fund (Rs)**	**Ratio (%)**
2004/2005	520.11	17064.08	3.05
2005/2006	635.26	22329.97	2.84
2006/2007	673.96	27253.39	2.47
2007/2008	746.47	37132.76	2.01
2008/2009	1031.05	43867.40	2.35

NIBL			(Rs. In Million)
F/Y	**Net Profit (Rs)**	**Total Working Fund (Rs)**	**Ratio (%)**
2004/2005	232.15	16063.54	1.45
2005/2006	350.54	21330.14	1.64
2006/2007	501.40	27590.84	1.82
2007/2008	696.73	38873.31	1.79
2008/2009	900.62	53010.80	1.70

SCBNL			(Rs. In Million)
F/Y	**Net Profit (Rs)**	**Total Working Fund (Rs)**	**Ratio (%)**
2004/2005	536.24	21893.58	2.45
2005/2006	658.76	25776.33	2.56
2006/2007	691.67	28596.69	2.42
2007/2008	818.92	33335.79	2.46
2008/2009	1025.11	40587.47	2.53

APPENDIX - J

Total Interest Earned to Loan and Advances

NABIL			(Rs. In Million)
F/Y	**Total Interest Earned**	**Loan and Advances**	**Ratio (%)**
2004/2005	1068.75	10586.17	10.10
2005/2006	1310.00	12922.54	10.14
2006/2007	1587.75	15545.78	10.21
2007/2008	1978.70	21365.05	9.26
2008/2009	2798.49	27589.93	10.14

NIBL			(Rs. In Million)
F/Y	**Total Interest Earned**	**Loan and Advances**	**Ratio (%)**
2004/2005	886.80	9933.08	8.93
2005/2006	1172.74	12776.21	9.18
2006/2007	1584.99	17286.43	9.17
2007/2008	2194.28	26996.65	8.13
2008/2009	3267.94	36241.21	9.02

SCBNL			(Rs. In Million)
F/Y	**Total Interest Earned**	**Loan and Advances**	**Ratio (%)**
2004/2005	1058.68	8143.21	13.00
2005/2006	1189.60	8935.42	13.31
2006/2007	1411.98	10502.64	13.44
2007/2008	1591.20	13718.60	11.60
2008/2009	1887.22	13679.76	13.80

APPENDIX - K
Liquidity Risk Ratio

NABIL			(Rs. In Million)
F/Y	**Cash & Bank Balance (Rs)**	**Total Deposit(Rs)**	**Ratio (%)**
2004/2005	559.38	14586.61	3.83
2005/2006	630.24	19347.40	3.26
2006/2007	1399.83	23342.29	6.00
2007/2008	2671.14	31915.05	8.37
2008/2009	3372.51	37348.26	9.03

NIBL			(Rs. In Million)
F/Y	**Cash & Bank Balance (Rs)**	**Total Deposit(Rs)**	**Ratio (%)**
2004/2005	1340.48	14254.57	9.40
2005/2006	2336.52	18927.31	12.34
2006/2007	2441.51	24488.86	9.97
2007/2008	3754.94	34451.73	10.90
2008/2009	7918.00	46698.10	16.96

SCBNL			(Rs. In Million)
F/Y	**Cash & Bank Balance (Rs)**	**Total Deposit(Rs)**	**Ratio (%)**
2004/2005	1111.12	19363.47	5.74
2005/2006	1276.24	23061.03	5.53
2006/2007	2021.02	24647.02	8.20
2007/2008	2050.24	29744.00	6.89
2008/2009	3137.16	35871.72	8.75

APPENDIX – L1
Credit Risk Ratio

NABIL			**(Rs. In Million)**
F/Y	**Non Performing Loans (Rs)**	**Loan & Advances(Rs)**	**Ratio (%)**
2004/2005	144.51	10586.17	1.37
2005/2006	182.62	12922.54	1.41
2006/2007	178.29	15545.78	1.15
2007/2008	161.09	21365.05	0.75
2008/2009	224.82	27589.93	0.81

NIBL			**(Rs. In Million)**
F/Y	**Non Performing Loans (Rs)**	**Loan & Advances(Rs)**	**Ratio (%)**
2004/2005	280.87	9933.08	2.83
2005/2006	272.49	12776.21	2.13
2006/2007	421.97	17286.43	2.44
2007/2008	309.47	26996.65	1.15
2008/2009	213.91	36241.21	0.59

SCBNL			**(Rs. In Million)**
F/Y	**Non Performing Loans (Rs)**	**Loan & Advances(Rs)**	**Ratio (%)**
2004/2005	226.31	8143.21	2.78
2005/2006	195.93	8935.42	2.19
2006/2007	197.02	10502.64	1.88
2007/2008	128.72	13718.60	0.94
2008/2009	91.04	13679.76	0.67

APPENDIX – L2

Loan Loss Provision to Total Loan and Advances Ratio

NABIL			**(Rs. In Million)**
F/Y	**Loan Loss Provision (Rs)**	**Loan & Advances(Rs)**	**Ratio (%)**
2004/2005	360.57	10586.17	3.41
2005/2006	356.24	12922.54	2.76
2006/2007	357.25	15545.78	2.30
2007/2008	394.41	21365.05	1.85
2008/2009	409.08	27589.93	1.48

NIBL			**(Rs. In Million)**
F/Y	**Loan Loss Provision (Rs)**	**Loan & Advances(Rs)**	**Ratio (%)**
2004/2005	327.11	9933.08	3.29
2005/2006	401.94	12776.21	3.15
2006/2007	482.67	17286.43	2.79
2007/2008	532.65	26996.65	1.97
2008/2009	585.95	36241.21	1.62

SCBNL			**(Rs. In Million)**
F/Y	**Loan Loss Provision (Rs)**	**Loan & Advances(Rs)**	**Ratio (%)**
2004/2005	277.66	8143.21	3.41
2005/2006	270.86	8935.42	3.03
2006/2007	287.51	10502.64	2.74
2007/2008	245.39	13718.60	1.79
2008/2009	200.95	13679.76	1.47

APPENDIX - M
Pass Loan Provision to Total Pass Loan

NABIL			(Rs. In Million)
F/Y	**Pass Loan Provision**	**Total Pass Loan**	**Ratio (%)**
2004/2005	235.35	10802.23	2.18
2005/2006	214.30	13096.16	1.64
2006/2007	255.34	15724.73	1.62
2007/2008	294.74	21598.37	1.36
2008/2009	281.64	27774.19	1.01

NIBL			(Rs. In Million)
F/Y	**Pass Loan Provision**	**Total Pass Loan**	**Ratio (%)**
2004/2005	101.06	10172.29	0.99
2005/2006	165.14	12905.66	1.28
2006/2007	178.20	17347.13	1.03
2007/2008	279.81	27219.83	1.03
2008/2009	279.81	36613.25	0.76

SCBNL			(Rs. In Million)
F/Y	**Pass Loan Provision**	**Total Pass Loan**	**Ratio (%)**
2004/2005	81.95	8194.56	1.00
2005/2006	90.10	9010.35	1.00
2006/2007	105.93	10593.13	1.00
2007/2008	138.35	13835.26	1.00
2008/2009	137.90	13789.66	1.00

APPENDIX - N

Substandard Loan Loss Provision to Total Substandard

NABIL			(Rs. In Million)
F/Y	**Substandard Loan Loss Provision**	**Total Substandard Loan**	**Ratio (%)**
2004/2005	6.87	22.07	31.10
2005/2006	42.57	62.67	67.94
2006/2007	56.64	119.70	47.31
2007/2008	32.31	66.22	48.78
2008/2009	44.07	113.31	38.90

NIBL			(Rs. In Million)
F/Y	**Substandard Loan Loss Provision**	**Total Substandard Loan**	**Ratio (%)**
2004/2005	0.21	0.82	25.80
2005/2006	11.06	44.24	25.00
2006/2007	24.57	96.89	25.36
2007/2008	15.43	61.74	25.00
2008/2009	2.69	10.77	25.00

SCBNL			(Rs. In Million)
F/Y	**Substandard Loan Loss Provision**	**Total Substandard Loan**	**Ratio (%)**
2004/2005	2.61	10.44	25.00
2005/2006	4.12	16.49	25.00
2006/2007	4.11	16.45	25.00
2007/2008	6.23	24.91	25.00
2008/2009	8.61	34.42	25.00

APPENDIX - O

Provision for Doubtful Debt to Total Doubtful Debt

NABIL			(Rs. In Million)
F/Y	**Provision for Doubtful Debt**	**Total Doubtful Debt**	**Ratio (%)**
2004/2005	1.42	1.93	73.21
2005/2006	13.90	29.57	47.00
2006/2007	7.12	14.47	49.20
2007/2008	21.27	66.22	32.11
2008/2009	23.53	45.76	51.42

NIBL			(Rs. In Million)
F/Y	**Provision for Doubtful Debt**	**Total Doubtful Debt**	**Ratio (%)**
2004/2005	37.56	74.94	50.12
2005/2006	0.25	0.50	50.00
2006/2007	43.08	86.05	50.07
2007/2008	10.40	20.72	50.19
2008/2009	5.74	11.49	50.00

SCBNL			(Rs. In Million)
F/Y	**Provision for Doubtful Debt**	**Total Doubtful Debt**	**Ratio (%)**
2004/2005	81076	104.52	78.22
2005/2006	62.80	65.61	95.73
2006/2007	63.10	66.19	95.32
2007/2008	45.01	48.01	93.74
2008/2009	9.68	11.85	81.64

APPENDIX - P

Provision for Bad Debt to Total Bad Debt

NABIL			(Rs. In Million)
F/Y	**Provision for Bad Debt**	**Total Bad Debt**	**Ratio (%)**
2004/2005	116.94	120.50	97.05
2005/2006	85.47	90.39	94.55
2006/2007	38.15	44.12	86.46
2007/2008	46.10	52.29	88.16
2008/2009	59.84	65.76	91.00

NIBL			(Rs. In Million)
F/Y	**Provision for Bad Debt**	**Total Bad Debt**	**Ratio (%)**
2004/2005	188.28	205.11	91.79
2005/2006	225.49	227.76	99.01
2006/2007	236.82	239.03	99.08
2007/2008	227.01	227.01	100.00
2008/2009	191.66	191.66	100.00

SCBNL			(Rs. In Million)
F/Y	**Provision for Bad Debt**	**Total Bad Debt**	**Ratio (%)**
2004/2005	111.34	111.34	100.00
2005/2006	113.83	113.83	100.00
2006/2007	114.37	114.37	100.00
2007/2008	55.80	55.80	100.00
2008/2009	44.77	44.77	100.00

APPENDIX – Q (1)

Co-efficient of Correlation between Total Deposit and Loan and Advances

Correlation between Total Deposit and Loan and Advances of NABIL

F/Y	Total Deposit (X)	Loan & Advances (Y)	x= (X-$\bar{X}$)	y= (Y- $\bar{Y}$)	x^2	y^2	xy
2004/05	14586.61	10586.17	-111952.99	-77423.31	12533471538.70	5994368659.14	8667770704.27
2005/06	19347.40	12922.54	-107192.20	-75086.94	11490167447.99	5638047821.35	8048733661.09
2006/07	23342.29	15545.78	-103197.31	-72463.70	10649685358.20	5250987747.26	7478059061.55
2007/08	31915.05	21365.08	31915.05	-66644.42	1018570254.82	4441479373.72	-2126959984.92
2008/09	37348.25	27589.93	-89191.34	-60419.55	7955095529.50	3650521442.54	5388900333.82
N= 5	$\bar{X}$=25307.9	$\bar{Y}$=17601.90			43646990129.21	24975405044.01	27456503775.81

Now, we have

N= 5 $\sum x^2$ =43646990129.21

$\sum y^2$ =24975405044.01

$\sum xy$ =27456503775.81

Correlation of coefficient can be calculated by using the following formula:

$$r = \frac{\sum xy}{\sqrt{\sum x^2}\sqrt{\sum y^2}} = \frac{27456503775.81}{\sqrt{43646990129.21}\sqrt{24975405044.01}} = \frac{27456503775.81}{33016681502}$$

$r = 0.83$ $r^2 = 0.69$

$$P.Er. = 0.6745\ \frac{1-r^2}{\sqrt{N}} \qquad P.Er. = 0.6745\ \frac{1-0.69}{\sqrt{5}} \quad P.Er. = 0.093 \qquad 6P.Er. = 0.56$$

APPENDIX – Q (2)

Correlation between Total Deposit and Loan and Advances of NIBL

F/Y	Total Deposit(X)	Loan & Advances (Y)	x= (X-$\bar{X}$)	y= (Y- $\bar{Y}$)	x^2	y^2	xy
2004/05	14254.57	9933.08	-124565.99	-93300.49	15516685347.98	8704982225.80	11622068239.24
2005/06	18927.31	12776.21	-119893.26	-90457.37	14374392741.96	8182535900.93	10845228658.96
2006/07	24488.86	17286.43	-114331.71	-85947.15	13071738972.40	7386912812.46	9826484422.08
2007/08	34451.73	26996.65	34451.73	-76236.93	1186921437.54	5812068947.99	-2626493714.22
2008/09	46698.10	36241.21	-92122.46	-66992.37	8486547917.24	4487977920.52	6171502221.83
N= 5	$\bar{X}$=27764.11	$\bar{Y}$=20646.72			52636286417.13	34574477807.70	35838789827.84

Now, we have

N= 5 $\sum x^2$ =52636286417.13

$\sum y^2$ =34574477807.70

$\sum xy$ =35838789827.84

Correlation of coefficient can be calculated by using the following formula:

$$r = \frac{\sum xy}{\sqrt{\sum x^2}\sqrt{\sum y^2}}$$

$$r = \frac{35838789827.84}{\sqrt{52636286417.13}\sqrt{3457447807.70}} = \frac{35838789827.84}{42659959173} = 0.84$$

$$r^2 = 0.71$$

$$P.Er. = 0.6745\,\frac{1-r^2}{\sqrt{N}} \qquad P.Er. = 0.6745\,\frac{1-0.98}{\sqrt{5}} \quad P.Er. = 0.089 \qquad 6P.Er. = 0.53$$

APPENDIX – Q (3)

Correlation between Total Deposit and Loan and Advances of SCBNL

F/Y	Total Deposit(X)	Loan & Advances (Y)	x= (X-$\bar{X}$)	y= (Y- $\bar{Y}$)	x^2	y^2	xy
2004/05	19363.47	8143.21	-113323.77	-46836.41	12842277471.88	2193649214.29	5307678577.86
2005/06	23061.03	8935.42	-109626.21	-46044.20	12017906034.29	2120068265.24	5047651057.46
2006/07	24647.02	10502.64	-108040.22	-44476.98	11672689537.83	1978201724.57	4805302755.72
2007/08	29744.00	13718.60	29744.00	-41261.02	884705464.26	1702471748.17	-1227267720.73
2008/09	35871.72	13679.76	-96815.52	-41299.86	9373245199.44	1705678424.46	3998467469.40
N= 5	$\bar{X}$=26537.24	$\bar{Y}$=10995.92			46790823707.70	9700069376.72	17931832139.70

Now, we have

N= 5 $\quad \sum x^2 = 46790823707.70$

$\sum y^2 = 9700069376.72$

$\sum xy = 17931832139.70$

Correlation of coefficient can be calculated by using the following formula:

$$r = \frac{\sum xy}{\sqrt{\sum x^2}\sqrt{\sum y^2}}$$

$$r = \frac{17931832139.70}{\sqrt{46790823707.70}\sqrt{9700069376.72}} = \frac{17931832139.70}{21304324353} = 0.84 \qquad r^2 = 0.71$$

$$P.Er. = 0.6745\ \frac{1-r^2}{\sqrt{N}} \qquad P.Er. = 0.6745\ \frac{1-0.58}{\sqrt{5}} \quad P.Er. = 0.088 \qquad 6P.Er. = 0.53$$

APPENDIX – R (1)

Co-efficient of Correlation between Net Income and Loan and Advances

Correlation between Net Income and Loan and advances of NABIL

F/Y	Net Income (X)	Loan and Advances (Y)	x= (X-$\bar{X}$)	y= (Y- $\bar{Y}$)	x^2	y^2	xy
2004/05	520.11	10586.17	-3086.74	-77423.31	9527985.68	5994368659.14	238985896.48
2005/06	635.26	12922.54	-2971.60	-75086.94	8830378.48	5638047821.36	223127981.53
2006/07	673.96	15545.78	-2932.90	-72463.70	8601890.24	5250987747.26	212528634.01
2007/08	746.67	21365.05	746.47	-66644.42	557215.06	4441479373.72	-49747956.84
2008/09	1031.05	27589.93	-2575.80	-60419.55	6634768.96	3650521442.54	155628937.99
N= 5	$\bar{X}$=721.37	$\bar{Y}$=17601.90			34152238.42	24975405044.01	780523493.18

Now, we have

N= 5 $\sum x^2$ =34152238.42

$\sum y^2$ =24975405044.01

$\sum xy$ =780523493.18

Correlation of coefficient can be calculated by using the following formula:

$$r = \frac{\sum xy}{\sqrt{\sum x^2}\sqrt{\sum y^2}} = \frac{780523493.18}{\sqrt{34152238.42}\sqrt{24975405044.01}} = \frac{780523493.18}{923561577.6} = 0.85 \qquad r^2 = 0.71$$

$$P.Er. = 0.6745\,\frac{1-r^2}{\sqrt{N}} \qquad P.Er. = 0.6745\,\frac{1-0.83}{\sqrt{5}} \qquad P.Er. = 0.086 \qquad 6P.Er. = 0.52$$

APPENDIX – R (2)

Correlation between Net Income and Loan and Advances of NIBL

F/Y	Net Income (X)	Loan and Advances (Y)	x= (X-$\overline{X}$)	y= (Y- $\overline{Y}$)	x^2	y^2	xy
2004/05	232.15	9933.09	-2449.29	-93300.49	5999001.19	8704982225.80	228519580.72
2005/06	350.34	12776.21	-2330.90	-90457.37	5433078.68	8182535900.93	210846772.12
2006/07	501.40	17286.43	-2180.03	-85947.15	4752548.67	7386912812.46	187367720.49
2007/08	696.73	26996.65	696.73	-76236.93	485434.81	5812068947.99	-53116669.31
2008/09	900.62	36241.21	-1780.81	-66992.37	3171298.08	4487977920.52	119300946.10
N= 5	$\overline{X}$=536.29	$\overline{Y}$=20646.72			19841361.42	34574477807.70	692918350.13

Now, we have

N= 5 $\sum x^2$ =19841361.42

$\sum y^2$ =34574477807.70

$\sum xy$ =692918350.13

Correlation of coefficient can be calculated by using the following formula:

$$r = \frac{\sum xy}{\sqrt{\sum x^2}\sqrt{\sum y^2}} = \frac{692918350.13}{\sqrt{19841361.42}\sqrt{34574477807.70}} = \frac{692918350.13}{828254013.1}$$

$r = 0.84$ $r^2 = 0.70$

$$P.Er. = 0.6745\ \frac{1-r^2}{\sqrt{N}} \qquad P.Er. = 0.6745\ \frac{1-0.656}{\sqrt{5}} \qquad P.Er. = 0.090 \qquad 6P.Er. = 0.54$$

APPENDIX – R (3)

Correlation between Net Income and Loan and Advances of SCBNL

F/Y	Net Income (X)	Loan and Advances (Y)	x= (X-$\bar{X}$)	y= (Y- $\bar{Y}$)	x^2	y^2	xy
2004/05	536.24	8143.21	-3194.46	-46836.41	10204571.43	2193649214.29	149617011.37
2005/06	658.76	8935.42	-3071.95	-46044.20	9436867.54	2120068265.24	141445407.85
2006/07	691.76	10502.64	-3039.04	-44476.98	9235741.69	1978201724.57	135167156.31
2007/08	818.92	13718.60	818.92	-41261.02	670631.62	1702471748.17	-33789515.86
2008/09	1025.11	13679.76	-2705.59	-41299.86	7320216.37	1705678424.46	111740481.15
N= 5	$\bar{X}$=746.14	$\bar{Y}$=10995.92			36868028.65	9700069376.72	504180540.83

Now, we have

N= 5 $\sum x^2$ =36868028.65

$\sum y^2$ =9700069376.72

$\sum xy$ =504180540.83

Correlation of coefficient can be calculated by using the following formula:

$$r = \frac{\sum xy}{\sqrt{\sum x^2}\sqrt{\sum y^2}} = \frac{504180540.83}{\sqrt{36868028.65}\sqrt{9700069376.72}} = \frac{504180540.83}{598015414.3} = 0.84 \qquad r^2 = 0.71$$

$$P.Er. = 0.6745\,\frac{1-r^2}{\sqrt{N}} \qquad P.Er. = 0.6745\,\frac{1-0.75}{\sqrt{5}} \qquad P.Er. = 0.087 \qquad 6P.Er. = 0.52$$

APPENDIX – S (1)

Correlation between Interest Earned to Loan and Advances

Correlation between Interest Earned to Loan and Advances of NABIL

F/Y	Interest Earned (X)	Loan and Advances (Y)	x= (X-$\bar{X}$)	y= (Y- $\bar{Y}$)	x^2	y^2	xy
2004/05	1068.75	10586.17	-7674.94	-77423.31	58904706.11	5994368659.14	594219255.97
2005/06	1310.00	12922.54	-7433.69	-75086.94	55259723.32	5638047821.36	558172878.83
2006/07	1587.76	15545.78	-7155.93	-72463.70	51207308.29	5250987747.26	518545030.25
2007/08	1978.70	21365.05	1978.70	-66644.42	3915240.74	4441479373.72	-131869105.47
2008/09	2798.49	27589.93	-5945.20	-60419.55	35345411.48	3650521442.54	359206323.04
N= 5	$\bar{X}$=1748.74	$\bar{Y}$=17601.90			204632389.93	24975405044.01	1898274382.61

Now, we have

N= 5 $\sum x^2 = 204632389.93$

$\sum y^2 = 24975405044.01$

$\sum xy = 1898274382.61$

Correlation of coefficient can be calculated by using the following formula:

$$r = \frac{\sum xy}{\sqrt{\sum x^2}\sqrt{\sum y^2}} = \frac{1898274382.61}{\sqrt{204632389.93}\sqrt{24975405044.01}} = \frac{1898274382.61}{2260702728} = 0.84 \qquad r^2 = 0.71$$

$$P.Er. = 0.6745\,\frac{1-r^2}{\sqrt{N}} \qquad P.Er. = 0.6745\,\frac{1-0.62}{\sqrt{5}} \qquad P.Er. = 0.089 \qquad 6P.Er. = 0.53$$

APPENDIX – S (2)

Correlation between Interest Earned to Loan and Advances of NIBL

F/Y	Interest Earned (X)	Loan and Advances (Y)	x= (X-$\bar{X}$)	y= (Y- $\bar{Y}$)	x^2	y^2	xy
2004/05	886.80	9933.09	-8219.95	-93300.49	67567519.00	8704982225.80	766925062.79
2005/06	1172.74	12776.21	-7934.00	-90457.37	62948422.28	8182535900.93	717689156.40
2006/07	1584.99	17286.43	-7521.76	-85947.15	56576858.69	7386912812.46	646473760.01
2007/08	2194.28	26996.65	2194.28	-76236.93	4814845.94	5812068947.99	-167284836.73
2008/09	3267.94	36241.21	-5838.81	-66992.37	34091646.49	4487977920.52	391155412.49
N= 5	$\bar{X}$=1821.35	$\bar{Y}$=20646.72			225999292.41	34574477807.70	2354958554.96

Now, we have

N= 5 $\sum x^2$ = 225999292.41

$\sum y^2$ =34574477807.70

$\sum xy$ =2354958554.96

Correlation of coefficient can be calculated by using the following formula

$$r = \frac{\sum xy}{\sqrt{\sum x^2}\sqrt{\sum y^2}} = \frac{2354958554.96}{\sqrt{225999292.41}\sqrt{34574477807.70}} = \frac{2354958554.96}{2795318858} = 0.84 \qquad r^2 = 0.71$$

$$P.Er. = 0.6745\,\frac{1-r^2}{\sqrt{N}} \qquad P.Er. = 0.6745\,\frac{1-0.96}{\sqrt{5}} \quad P.Er. = 0.087 \qquad 6P.Er. = 0.52$$

APPENDIX – S (3)

Correlation between Interest Earned to Loan and Advances of SCBNL

F/Y	Interest Earned (X)	Loan and Advances (Y)	x= (X-$\overline{X}$)	y= (Y- $\overline{Y}$)	x^2	y^2	xy
2004/05	1058.68	8143.21	-6080.00	-46836.41	36966419.54	2193649214.29	284765442.39
2005/06	1189.60	8935.42	-5949.08	-46044.20	35391507.94	2120068265.24	273920449.85
2006/07	1411.98	10502.64	-5726.70	-44476.98	32795062.15	1978201724.57	254706200.36
2007/08	1591.20	13718.60	1591.20	-41261.02	2531903.20	1702471748.17	-65654349.97
2008/09	1887.22	13679.76	-5251.46	-41299.86	27577810.35	1705678424.46	216884476.40
N= 5	$\overline{X}$=1427.74	$\overline{Y}$=10995.92			135262703.18	9700069376.72	964622219.04

Now, we have

N= 5 $\sum x^2$ = 135262703.18

$\sum y^2$ =9700069376.72

$\sum xy$ =964622219.04

Correlation of coefficient can be calculated by using the following formula:

$$r = \frac{\sum xy}{\sqrt{\sum x^2}\sqrt{\sum y^2}} = \frac{964622219.04}{\sqrt{135262703.18}\sqrt{9700069376.72}} = \frac{964622219.04}{1145450830} = 0.84 \quad r^2 = 0.71$$

$$P.Er. = 0.6745\,\frac{1-r^2}{\sqrt{N}} \qquad P.Er. = 0.6745\,\frac{1-0.77}{\sqrt{5}} \quad P.Er. = 0.088 \qquad 6P.Er. = 0.53$$

APPENDIX – T (1)

Correlation between Non performing Loan and Total Loan & Advances

Correlation between Non performing Loan and Total Loan & Advances of NABIL

F/Y	NPL (X)	Loan and Advances(Y)	x= (X-$\bar{X}$)	y= (Y- $\bar{Y}$)	x^2	y^2	xy
2004/05	144.51	10586.17	-746.82	-77423.31	557742.91	5994368659.14	57821419.92
2005/06	182.62	12922.54	-708.70	-75086.94	502261.76	5638047821.36	53214432.57
2006/07	178.29	15545.78	-713.03	-72463.70	508418.60	5250987747.26	51669138.11
2007/08	161.09	21365.05	161.09	-66644.42	25948.70	4441479373.72	-10735483.50
2008/09	224.82	27589.93	-666.51	-60419.55	444237.38	3650521442.54	40270312.70
N= 5	$\bar{X}$=-746.82	$\bar{Y}$=17601.90			2038069.35	24975405044.01	192239819.80

Now, we have

N= 5 $\sum x^2 = 2038069.35$

$\sum y^2 = 24975405044.01$

$\sum xy = 192239819.80$

Correlation of coefficient can be calculated by using the following formula:

$$r = \frac{\sum xy}{\sqrt{\sum x^2}\sqrt{\sum y^2}} = \frac{192239819.80}{\sqrt{2038069.35}\sqrt{24975405044.01}} = \frac{192239819.80}{225643732.8} = 0.85 \qquad r^2 = 0.73$$

$$P.Er. = 0.6745\ \frac{1 - r^2}{\sqrt{N}} \qquad P.Er. = 0.6745\ \frac{1 - 0.656}{\sqrt{5}} \qquad P.Er. = 0.083 \qquad 6P.Er. = 0.50$$

APPENDIX – T (2)

Correlation between Non performing Loan and Total Loan & Advances of NIBL

F/Y	NPL (X)	Loan and Advances(Y)	x= (X-$\bar{X}$)	y= (Y- $\bar{Y}$)	x^2	y^2	xy
2004/05	280.87	9933.09	-1217.84	-93300.49	1483141.49	8704982225.80	113625350.73
2005/06	272.49	12776.21	-1226.22	-90457.37	1503625.44	8182535900.93	110921004.00
2006/07	421.97	17286.43	1076.75	-85947.15	1159380.98	7386912812.46	92543212.59
2007/08	309.47	26996.65	309.47	-76236.93	95772.29	5812068947.99	-23593116.56
2008/09	213.91	36241.21	-1284.81	-66992.37	1650735.98	4487977920.52	86072449.78
N= 5	$\bar{X}$=299.74	$\bar{Y}$=20646.72			5892656.17	34574477807.70	379568900.53

Now, we have

N= 5 $\quad \sum x^2 = 5892656.17$

$\sum y^2 = 34574477807.70$

$\sum xy = 379568900.53$

Correlation of coefficient can be calculated by using the following formula:

$$r = \frac{\sum xy}{\sqrt{\sum x^2}\sqrt{\sum y^2}} = \frac{379568900.53}{\sqrt{5892656.17}\sqrt{34574477807.70}} = \frac{379568900.53}{451370701.4} = 0.84 \qquad r^2 = 0.71$$

$$P.Er. = 0.6745\ \frac{1 - r^2}{\sqrt{N}} \qquad P.Er. = 0.6745\ \frac{1 - 0.806}{\sqrt{5}} \qquad P.Er. = 0.088 \qquad 6P.Er. = 0.53$$

APPENDIX – T (3)

Correlation between Non performing Loan and Total Loan & Advances of SCBNL

F/Y	NPL (X)	Loan and Advances(Y)	x= (X-$\bar{X}$)	y= (Y- $\bar{Y}$)	x^2	y^2	xy
2004/05	226.31	8143.21	-612.71	-46836.41	375414.65	2193649214.29	28697178.63
2005/06	195.93	8935.42	-643.09	-46044.20	413560.88	2120068265.24	29610425.55
2006/07	197.02	10502.64	-642.00	-44476.98	412166.77	1978201724.57	28554316.87
2007/08	128.72	13718.60	128.72	-41261.02	16568.78	1702471748.17	-5311109.46
2008/09	91.04	13679.76	-747.98	-41299.86	559470.57	1705678424.46	30891372.25
N= 5	$\bar{X}$=167.80	$\bar{Y}$=10995.92			1777181.66	9700069376.72	112442183.84

Now, we have

N= 5 $\quad \sum x^2 = 1777181.66$

$\sum y^2 = 9700069376.72$

$\sum xy = 112442183.84$

Correlation of coefficient can be calculated by using the following formula:

$$r = \frac{\sum xy}{\sqrt{\sum x^2}\sqrt{\sum y^2}} = \frac{112442183.84}{\sqrt{1777181.66}\sqrt{9700069376.72}} = \frac{112442183.84}{131296555}$$

$$r = 0.86 \qquad r^2 = 0.73$$

$$P.Er. = 0.6745\ \frac{1 - r^2}{\sqrt{N}} \qquad P.Er. = 0.6745\ \frac{1 - 0.77}{\sqrt{5}} \quad P.Er. = 0.080 \qquad 6P.Er. = 0.48$$

APPENDIX – U (1)

Trend value of Loan and Advances

Trend value of Loan and Advances of NABIL (2005-2009)

Year (X)	Loan and Advances (Y)	x = (X-2007)	x^2	xY	y=a+bx y= 17601.90+4245x
2005	10586.17	-2	4	-21172.34	7279.38
2006	12922.54	-1	1	-12922.54	13356.89
2007	15545.78	0	0	0	17601.90
2008	21365.05	1	1	21365.05	21846.90
2009	27589.93	2	4	55179.87	26091.90
	88009.48		10	42450.04	

Now, $a = \frac{\sum Y}{N}$ $b = \frac{\sum xY}{\sum x^2}$

$a = \frac{88009.48}{5}$ $b = \frac{42450.04}{10}$

a = 17601.90 b =4245.00

Trend value of Loan and Advances of NABIL (2010-2014)		
Year (X)	x= (X-2007)	Trend Value y= a+ bx
2010	3	30336.91
2011	4	34581.91
2012	5	38826.91
2013	6	43071.92
2014	7	47316.92

APPENDIX – U (2)

Trend value of Loan and Advances of NIBL (2005-2009)

Year (X)	Loan and Advances (Y)	x = (X-2007)	x^2	xY	y=a+bx y=20646.72 +6683.67x
2005	9933.09	-2	4	-19866.17	7279.38
2006	12776.21	-1	1	-12776.21	13963.05
2007	17286.43	0	0	0	20646.72
2008	26996.65	1	1	26996.65	27330.38
2009	36241.21	2	4	72482.41	34014.05
	103233.58		10	66836.69	

Now, $a = \frac{\sum Y}{N}$ $b = \frac{\sum xY}{\sum x^2}$

$a = \frac{103233.58}{5}$ $b = \frac{66836.69}{10}$

a = 20646.72 b = 6683.67

Trend value of Loan and Advances of NIBL (2010-2014)		
Year (X)	x= (X-2007)	Trend Value y= a+ bx
2010	3	40697.72
2011	4	47381.39
2012	5	54065.06
2013	6	60748.73
2014	7	67432.40

APPENDIX – U (3)

Trend value of Loan and Advances of SCBNL (2005-2009)

Year (X)	Loan and Advances (Y)	x = (X-2007)	x^2	xY	y=a+bx y= 10995.92+1585.63x
2005	8143.21	-2	4	-16286.42	7824.67
2006	8935.42	-1	1	-8935.42	9410.30
2007	10502.64	0	0	0	10995.92
2008	13718.60	1	1	13718.60	12581.55
2009	13679.76	2	4	27359.51	14167.18
	54979.62		10	15856.28	

Now, $a = \frac{\sum Y}{N}$ $b = \frac{\sum xY}{\sum x^2}$

$a = \frac{54979.62}{5}$ $b = \frac{15856.28}{10}$

a = 10995.92 b = 1585.63

Trend value of Loan and Advances of SCBNL(2010-2014)		
Year (X)	x= (X-2007)	Trend Value y= a+ bx
2010	3	15752.81
2011	4	17338.43
2012	5	18924.06
2013	6	20509.69
2014	7	22095.32

APPENDIX – V (1)
Trend Analysis of Total Deposit

Trend value of Total Deposit of NABIL (2005-2009)

Year (X)	Total Deposit (Y)	x = (X-2007)	x^2	xY	y=a+bx y= 25307.92+5809.09x
2005	14586.61	-2	4	-29173.22	13689.73
2006	19347.40	-1	1	-19347.40	19498.83
2007	23342.29	0	0	0	25307.92
2008	31915.05	1	1	31915.05	31117.01
2009	37348.26	2	4	74696.51	36926.11
	126539.60		10	58090.94	

Now, $a = \frac{\sum Y}{N}$ $b = \frac{\sum xY}{\sum x^2}$

$a = \frac{126539.60}{5}$ $b = \frac{58090.94}{10}$

a = 25307.92 b = 5809.09

Trend value of Total Deposit of NABIL (2010-2014)		
Year (X)	x= (X-2007)	Trend Value y= a+ bx
2010	3	42735.20
2011	4	48544.30
2012	5	54353.39
2013	6	60162.48
2014	7	65971.58

APPENDIX – V (2)

Trend value of Total Deposit of NIBL (2005-2009)

Year (X)	Total Deposit (Y)	x = (X-2007)	x^2	xY	y=a+bx y=27764.11+8041.15x
2005	14254.57	-2	4	-28509.15	11681.82
2006	18927.31	-1	1	-18927.31	19722.97
2007	24488.86	0	0	0	27764.11
2008	34451.73	1	1	34454.73	35805.26
2009	46698.10	2	4	93396.20	48846.41
	138820.56		10	80411.47	

Now, $a = \frac{\sum Y}{N}$ $b = \frac{\sum xY}{\sum x^2}$

$a = \frac{138820.56}{5}$ $b = \frac{80411.47}{10}$

a =27764.11 b = 8041.15

Trend value of Total Deposit of NIBL (2010-2014)		
Year (X)	x= (X-2007)	Trend Value y= a+ bx
2010	3	51887.35
2011	4	59928.70
2012	5	67969.85
2013	6	76011.00
2014	7	84052.14

APPENDIX – V (3)

Trend value of Total Deposit of SCBNL (2005-2009)

Year (X)	Total Deposit (Y)	x = (X-2007)	x^2	xY	y=a+bx y= 10995.92+1585.63x
2005	8143.21	-2	4	-16286.42	7824.67
2006	8935.42	-1	1	-8935.42	9410.30
2007	10502.64	0	0	0	10995.92
2008	13718.60	1	1	13718.60	12581.55
2009	13679.76	2	4	27359.51	14167.18
	54979.62		10	15856.28	

Now, $a = \frac{\sum Y}{N}$ $b = \frac{\sum xY}{\sum x^2}$

$a = \frac{54979.62}{5}$ $b = \frac{15856.28}{10}$

a = 10995.92 b = 1585.63

Trend value of Total Deposit of SCBNL (2010-2014)		
Year (X)	x= (X-2007)	Trend Value y= a+ bx
2010	3	15752.81
2011	4	17338.43
2012	5	18924.06
2013	6	20509.69
2014	7	22095.32

APPENDIX – W (1)
Trend Analysis of Net Profit

Trend value of Net Profit of NABIL (2005-2009)

Year (X)	Net Profit (Y)	x = (X-2007)	x^2	xY	y=a+bx y= 721.37+113.31x
2005	520.11	-2	4	-1040.23	494.75
2006	635.26	-1	1	-635.26	608.06
2007	673.96	0	0	0	721.37
2008	746.47	1	1	746.47	834.68
2009	1031.05	2	4	2062.11	947.99
	3606.86		10	1133.08	

Now, $a = \frac{\sum Y}{N}$ $b = \frac{\sum xY}{\sum x^2}$

$a = \frac{3606.86}{5}$ $b = \frac{1133.08}{10}$

a = 721.37 b = 113.31

Trend value of Net Profit of NABIL (2010-2014)		
Year (X)	x= (X-2007)	Trend Value y= a+ bx
2010	3	1061.30
2011	4	1174.61
2012	5	1287.91
2013	6	1401.22
2014	7	1514.53

APPENDIX – W (2)

Trend value of Net Profit of NIBL (2005-2009)

Year (X)	Net Profit (Y)	x = (X-2007)	x^2	xY	y=a+bx y= 536.29 +168.32x
2005	232.15	-2	4	-464.29	199.66
2006	350.34	-1	1	-350.54	367.97
2007	501.40	0	0	0	536.29
2008	696.73	1	1	696.73	704.60
2009	900.62	2	4	1801.24	872.91
	2681.43		10	1683.14	

Now, $a = \frac{\sum Y}{N}$ $b = \frac{\sum xY}{\sum x^2}$

$a = \frac{2681.43}{5}$ $b = \frac{1683.14}{10}$

a = 536.29 b = 168.31

Trend value of Net Profit of NIBL (2010-2014)		
Year (X)	x= (X-2007)	Trend Value y= a+ bx
2010	3	1041.23
2011	4	1209.54
2012	5	1377.86
2013	6	1546.17
2014	7	1714.48

APPENDIX – W(3)

Trend value of Net Profit of SCBNL (2005-2009)

Year (X)	Net Profit (Y)	x = (X-2007)	x^2	xY	y=a+bx y= 746.14+113.79x
2005	536.24	-2	4	-1072.49	518.56
2006	658.76	-1	1	-358.76	632.35
2007	691.67	0	0	0	746.14
2008	818.92	1	1	818.92	859.93
2009	1025.11	2	4	2050.23	973.72
	3730.70		10	1137.90	

Now, $a = \frac{\sum Y}{N}$ $\qquad$ $b = \frac{\sum xY}{\sum x^2}$

$a = \frac{3730.70}{5}$ $\qquad$ $b = \frac{1137.90}{10}$

a = 746.14 $\qquad$ b = 113.79

Trend value of Net Profit of SCBNL (2010-2014)		
Year (X)	x= (X-2007)	Trend Value y= a+ bx
2010	3	1087.51
2011	4	1201.30
2012	5	1315.09
2013	6	1428.88
2014	7	1542.67

APPENDIX – X (1)
Trend value of Non Performing Loan

Trend value of Non Performing Loan of NABIL (2005-2009)

Year (X)	NPL (Y)	x = (X-2007)	x^2	xY	y=a+bx y= 178.27+13.91x
2005	144.51	-2	4	-289.01	150.45
2006	182.62	-1	1	-182.62	164.36
2007	178.29	0	0	0	178.27
2008	161.09	1	1	161.09	192.17
2009	224.82	2	4	449.63	206.08
	891.33		10	139.08	

Now, $a = \frac{\sum Y}{N}$ $b = \frac{\sum xY}{\sum x^2}$

$a = \frac{891.33}{5}$ $b = \frac{139.08}{10}$

a = 178.27 b = 13.91

Trend value of Non Performing Loan of NABIL (2010-2014)		
Year (X)	x= (X-2007)	Trend Value y= a+ bx
2010	3	219.99
2011	4	233.90
2012	5	247.81
2013	6	261.72
2014	7	275.62

APPENDIX – X (2)

Trend value of Non Performing Loan of NIBL (2005-2009)

Year (X)	NPL (Y)	x = (X-2007)	x^2	xY	y=a+bx y= 299.74+(-9.70)x
2005	280.87	-2	4	-561.75	319.13
2006	272.49	-1	1	-272.49	309.44
2007	421.97	0	0	0	299.74
2008	309.47	1	1	309.47	290.05
2009	213.91	2	4	427.81	280.35
	1498.72		10	-96.96	

Now, $a = \frac{\sum Y}{N}$ $b = \frac{\sum xY}{\sum x^2}$

$a = \frac{1498.72}{5}$ $b = -\frac{96.96}{10}$

a = 299.74 b = -9.70

Trend value of Non Performing Loan of NIBL (2010-2014)		
Year (X)	x= (X-2007)	Trend Value y= a+ bx
2010	3	270.66
2011	4	260.96
2012	5	251.27
2013	6	241.57
2014	7	231.87

APPENDIX – X (3)

Trend value of Non Performing Loan of SCBNL (2005-2009)

Year (X)	NPL (Y)	x = (X-2007)	x^2	xY	y=a+bx y= 167.80+(-33.77)x
2005	226.31	-2	4	-452.62	235.35
2006	195.93	-1	1	-195.93	201.58
2007	197.02	0	0	0	167.80
2008	128.72	1	1	128.72	134.03
2009	91.04	2	4	182.08	100.25
	839.02		10	-337.75	

Now, $a = \frac{\sum Y}{N}$ $b = \frac{\sum xY}{\sum x^2}$

$a = \frac{839.02}{5}$ $b = \frac{-337.75}{10}$

a = 167.80 b = -33.77

Trend value of Non Performing Loan of SCBNL (2010-2014)		
Year (X)	x= (X-2007)	Trend Value y= a+ bx
2010	3	66.48
2011	4	32.71
2012	5	-1.07
2013	6	-34.84
2014	7	-68.62

APPENDIX – Y (1)

Test of hypothesis on Loan and advances to total deposit ratio of NABIL, NIBL and SCBNL

F/Y	NABIL (X_1)	$(X_1- \bar{X}_1)^2$	NIBL (X_2)	$(X_2- \bar{X}_2)^2$	SCBNL (X_3)	$(X_3- \bar{X}_3)^2$
2004/2005	72.57	10.36	69.68	9.39	42.05	0.27
2005/2006	66.79	6.57	67.50	27.53	38.75	7.77
2006/2007	66.60	7.60	70.59	4.66	42.61	1.16
2007/2008	66.94	5.82	78.36	31.50	46.12	21.05
2008/2009	73.87	20.39	77.61	23.61	38.14	11.55
Total	**$\sum X_1$= 346.78**	**$\sum(X_1- \bar{X}_1)^2$ =50.75**	**$\sum X_2$=363.74**	**$\sum(X_2- \bar{X}_2)^2$ =96.70**	**$\sum X_3$=207.67**	**$\sum(X_3- \bar{X}_3)^2$ =41.81**
Mean	**$\bar{X}_1$= 69.36**		**$\bar{X}_2$= 72.75**		**$\bar{X}_3$=41.53**	

Grand mean $\bar{\bar{X}} = \frac{346.78+363.74+207.67}{15}$ =61.21

Sum of square between samples (banks)

$= n_1 (\bar{X}_1- \bar{\bar{X}})^2 + n_2 (\bar{X}_2- \bar{\bar{X}})^2 + n_3 (\bar{X}_3- \bar{\bar{X}})^2$

$= 5(69.36-61.21)^2+5(72.75-61.21)^2+ 5(41.53-61.21)^2 =2933.18$

Sum of square within samples

$=\sum(X_1- \bar{X}_1)^2+\sum(X_2- \bar{X}_2)^2+\sum(X_3- \bar{X}_3)^2$

= 50.75+96.70+41.81 =189.25

Test statistic, $F = \frac{\text{Sum of square between samples}/k-1}{\text{Sum of square within samples}/n-k}$

Where k= no. of samples and n= total number of observations

Therefore $F = \frac{2933.18/3-1}{189.25/15-3}$ =15.50

Degree of freedom =(k-1, n-k) = (3-1, 15-3)= (2, 12)

Critical value: the tabulated value of F at 5% level of significance for 2 and 12 d.f. is 3.89 i.e. $F_{0.05(2, 12)}$=3.89

APPENDIX – Y (2)

Test of hypothesis on Return on Loan and advances ratio of NABIL, NIBL and SCBNL

F/Y	NABIL (X_1)	$(X_1- \bar{X}_1)^2$	NIBL (X_2)	$(X_2- \bar{X}_2)^2$	SCBNL (X_3)	$(X_3- \bar{X}_3)^2$
2004/2005	4.91	0.40	2.34	0.07	6.59	0.05
2005/2006	4.92	0.41	2.74	0.02	7.37	0.33
2006/2007	4.34	0.00	2.90	0.08	6.59	0.05
2007/2008	3.49	0.62	2.58	0.00	5.97	0.69
2008/2009	3.74	0.29	2.49	0.02	7.49	0.48
Total	**$\sum X_1$= 21.40**	**$\sum(X_1- \bar{X}_1)^2$ =1.72**	**$\sum X_2$=13.05**	**$\sum(X_2- \bar{X}_2)^2$ =0.19**	**$\sum X_3$=34.01**	**$\sum(X_3- \bar{X}_3)^2$ =1.59**
Mean	**$\bar{X}_1$= 4.28**		**$\bar{X}_2$= 2.61**		**$\bar{X}_3$=6.80**	

Grand mean $\bar{\bar{X}} = \frac{21.4+13.05+34.01}{15}$ =4.56

Sum of square between samples (banks)

$= n_1 (\bar{X}_1- \bar{\bar{X}})^2 + n_2 (\bar{X}_2- \bar{\bar{X}})^2 + n_3 (\bar{X}_3- \bar{\bar{X}})^2$

$= 5(4.28-4.56)^2+5(2.61-4.56)^2+ 5(6.80-4.56)^2 =44.53$

Sum of square within samples

$=\sum(X_1- \bar{X}_1)^2+\sum(X_2- \bar{X}_2)^2+\sum(X_3- \bar{X}_3)^2$

= 1.72+0.19+1.59 =3.51

Test statistic, $F = \frac{\text{Sum of square between samples}/k-1}{\text{Sum of square within samples}/n-k}$

Where k= no. of samples and n= total number of observations

Therefore $F = \frac{44.53/3-1}{3.51/15-3}$ =12.71

Degree of freedom =(k-1, n-k) = (3-1, 15-3)= (2, 12)

Critical value: the tabulated value of F at 5% level of significance for 2 and 12 d.f is 3.89 i.e. $F_{0.05(2, 12)}$=3.89