# **CHAPTER ONE**

# INTRODUCTION

# 1.1 Background of the Study

Credit operation is the provision of resources (such as granting of a loan) by one party to another party where that secondary party doesn't reimburse the first party immediately, there by granting a debt, and instead arranges either to repay or return those resource) or materials of equal value at a later date. It is any form of deferred payment.

Credit affected the overall development of country. The volume of credit is directly related with the place of development of country, itself. Lending is most fundamental function of bank. The quality of loan, quality of borrower and quality of securities determines the health of any banker. The efficiency of banker lies in how it multiplies the deposit of depositors safety of found, liquidity of funds, purpose security of loan, profitability, spread of loan portfolio and compliance with national interest are some of the principles that banker should follow while granting loan. Expansion of bank credit is followed by increase in production, employment, sales and prices. In developing economy the banks offer more and more credit and increase the resources of the industries, thereby causing faster economic development; bank play a decisive role in the industrial development of the country. The follow of credit is very much like smooth and uniform through out the organs of body credit should flow steadily and evenly through various sector of the economy (Pradhan, 2009).

Beside the lending function, mobilization of funds is also significant importance for bank. Investment is the secondary means of fund mobilization. The investment in banking scenario refers to the placement of its funds to stocks, securities, treasury bills of government etc. Investment in its broad sense means the sacrifice of current dollars for futures dollars. There are generally two attributes involved in its time and risk. The Sacrifice takes place on the present and is certain, the reward comes later, If at all and the magnitude is generally uncertain (Gautam, 2009).

Nepalese money market and landing procedure is very much affected by its mass poverty, landlocked position, low social development, political instability and frequent changing policies of government. Beside these international market play a vital role while conduct a business in these days so banks and other organizations not only concentrate on their country but out side world also (Sharma, 2009).

Integrated and steady development of country is possible only when competitive banking service reaches nooks and corns of the country. Commercial banks occupies quite an important place in the frame work of every economy because it provides capital for the development of the industry, trade and business investing the saving collected as deposits. Besides these, commercial bank renders a numerous services to their customer in view of facilitating their economic and social life .All economic activities of each and every country are greatly influenced by the commercial banking business of that country. Commercial bank by playing active roles has changed the economic structure of the world (K.C. 2000).

Commercial bank are the heart financial sector, which occupy important place in the framework of the economy .They hold deposits of people, government and other business units they make funds available through their lending and investing activities to borrower's individuals, government and business units . By doing so, commercial banks provide capital for the development of the industry, business and service .Commercial banks make sound investment in various sector of the economy, which boost quality and quantity of investment as well as achieve its own objective of profit maximization. Thus, well-formulated and sound investment policies coordinated and planned efforts accelerate the pace of economic growth (Shrestha,1993).

# 1.2 An Overview Of Sample Banks

# a) Standard chartered Bank Limited (SCBNL)

The third commercial joint venture bank of Nepal standard Chartered Bank LTD was established 2043 B.S with a joint venture of Grindlays Bank of England, a member of ANZ group of companies with 50 % of equity investment. In march 2000, ANZ group of companies sold Grindlays business of Middle East Southern Asia to Standard Chartered (PLC). According to this contract, the 50% of the equity investment is transformed to Standard Chartered. Before April 2001, the name of this

bank was Grindlays Bank Limited In April 2001 it is changed ACBNL. Today the bank is an integral part of standard charterd Group having an ownership of 75% in the company with 25% shares owned by the Nepalese public. The bank enjoys the status of the largest international bank currently operating in Nepal (Subadi, 2004).

With 18 points of representation, 23 ATMs across the country and with more than 350 local staff, Standard Chartered Bank Nepal Ltd. is in a position to serve its customers through an extensive domestic network. In addition, the global network of Standard Chartered Group gives the Bank a unique opportunity to provide truly international banking services in Nepal. Standard Chartered Bank Nepal Limited offers a full range of banking products and services in Consumer banking, Wholesale and SME Banking catering to a wide range of customers encompassing individuals, mid market local corporate multinationals, large public companies, government corporations, airlines, hotel as well as the Do segment comprising of embassies, Ngo, Ingo (www.standardcharterd.com).

# b) Nepal Arab Bank Limited (Nabil)

Nabil bank Ltd is the first joint venture bank in Nepal established in 1984 A.D under the company Act. Dubai bank limited was the initial `foreign joint venture partner with 50% equity investment. The share owned by Dubai Bank Limited (DBL) were transferred to Emirates bank International Ltd (EBIL)Dubai Later on EBIL sold its entire holding to National Bank Ltd, Bangladesh (NBLB). Nabil Bank Limited had the official name Nepal Arab Bank Ltd till December 31-2001. Hence 50% equity share of Nabil Bank Ltd are held by NBLB and out of another 50% financial institutions has taken 20% and reaming 30% were issued to general public of Nepal (NRB Directive, 2009).

Nabil was incorporated with the objective of extending international standard modern banking services to various sectors of the society. Pursuing its. Pursuing its objective, Nabil provides a full range of commercial banking services through its 40 points of representation across the kingdom and over 170 reputed correspondent banks across the globe (NRBDirective,2009). Nabil, as a pioneer in introducing many innovative products and marketing concepts in the domestic banking sector, represents a milestone in the banking history of Nepal as it started an era of modern banking with

customer satisfaction measured as a focal objective while doing business 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, state-of-art, world-renowned software from Infosys Technologies System, Banglore, India, Internet banking system and Tele banking system ( www.Nabilbank.com).

# 1.3 Statement of the Problem

In developing countries like Nepal commercial banks have been facing several challenges, some of them are arising from lack of smooth functioning of the economic, some of them are arising due to confused policy and many of them are arising due to default of the borrower .Liberalization in the economy has produced some degree of opportunities and more than it had created chaos and uncertainty. The liberalization of financial sector demands a new technology of lending to cope with the risky pressures on the profitability of the banks and financial sector institutions. Investment is the most important factor from shareholders and banks management point of view .

Lending policies are not systematic and no clear cut vision of policy is available. In Nepal it has been found that on approval and lending decisions are made flexible to favor to personnel networks also. A new customer finds that loan providing process being very complicated and sometimes the documents submitted for loan sanctioning being fraudulent and for formality purpose only.

Investment is the most important factor from shareholders and banks management point of view. Through several joint venture bank have been established in our country with in period of time, sufficient return can not have been earned and strong, stable and appropriate investment policy has not been followed by the commercial bank. Due to throat cut competition financial environment, Bank seem to be ready to grant much more loan advances and facilities against their clients in sufficient deposit. However, subsequent development of commercial banks in quality has not been satisfactory; Majority of the commercial bank is found to be unsatisfactory. The financial loss and managerial responsibilities for their ailing unite have to be done by the government. But private

banks are running successfully. The joint venture banks are not interested in grating loan to the primary sectors of economy. Banking is not being easy accessibility of public in remote village area. Private bank are has concentrated their operation mainly in town and capital of the country. The present study will try to analyze and examine the lending opportunities and investment portfolio of respected banks. Each and every commercial bank should not run successfully without the conceptual framework of lending procedures.

There are many issues to be deal for the purpose of the study. This research can only focused the credit operation and practice of Standard Chartered Bank and NABIL BANK LTD. The research attempts to sort out the answer to the following question

- 1. How does the sample bank measures the liquidity position and impact of deposit on liquidity?
- 2. Are the selected sample banks effectively following the lending policy?
- 3. How does portfolio maintain the behavior of loan and advances?
- 4 How does bank measure lending efficiency and its contribution towards profitability?

# 1.4 Objectives of the Study

The main objective of the present study is to analyze liquidity position, Lending Policy as well as the portfolio behavior as the respected banks. The specific objectives of study are given below.

- 1 To identity the liquidity position of sample Banks
- 2 To analyze the efficiency of lending policy
- 3 To analyze the portfolio behavior of Loan and advances.
- 4 To measure the banks lending efficiency and its contribution towards profitability.

# 1.5 Significance of the study

The present study is to find out the lending operation and practice of the joint venture banks in Nepal. Any bank can perform its lending behavior only when it has sufficient amount to lend it. So first, it should be able to collect sufficient amount in the form of deposit from different sectors. In Nepal there are very few resources, which have been made in the area of lending operation of commercial banks. Due to this reason, only few books and resources dealing with this aspect are found but are not sufficient. Whatever the research in area of the lending practice have been made are also not in depth and detailed.

Credit is one of the essential and the main functions where the whole banking business is related thus, the study on the major joint venture banks and especially in their lending and investment policies carry a great significance to the share holder of banks, to the banking professionals, to the student and teachers of banking and commerce.

It is expected that this study will provide some relevant findings, which may help the bankers, professionals and interested readers also.

# 1.6 Limitation of the Study

The study is limited to the two selected joint venture banks and is confined only to the credit operation and practice of this books .this study will be limited by following factors:

- a. This study only looks for credit operation of sample banks although there are other fields of study.
- b. The accuracy and reliability of statistics is concern of the publisher itself.
- c. The finding and solutions could not be generalized, so this may not fulfill the common interest of all interested parties.
- d. The study is conducted within the two joint venture bank it is not sure that it will reflect the real status of all joint venture banks

e. Some of statistical as well as financial tools of comparison and analysis should be used in the study. Hence, the drawback and weakness of those tools may have an adverse effect on the outcome of the study.

# 1.7 Organization of the study

This study has been divided in five chapters. Each are devoted to the same aspects of the study. The whole study comprised of the five different consecutive part as mentioned below:

### **Chapter 1: Introduction**

This chapter included the general background of the study, overview of the banks under study, statement at the study, objectives of the study, significance of the study, limitation of the study and organization of the study.

## **Chapter 2: Review of the literature**

This parts is divided into different heading. First part deals with the reviewing of the various literatures. The second one consists of the existing studies, journals, articles, publication of NRB and review of books concerned to profit and profitability.

## Chapter 3: Research methodology.

This part consists of the total population, sample of the study, data collection procedures and the analytical tools and techniques used in the study.

## Chapter 4: Data presentation and analysis.

This part constitutes the tabular and graphical presentation of the collected data, their interpretation and analysis using various financial as will as statistical tools. Apart from it summary of the major findings are also presented at the end of the chapter.

### Chapter 5: Summary, Conclusion and Recommendation

This chapter consists the summary of the whole study and relevant conclusions where drawn based on the study. A suitable set of recommendations where made at the end of the chapter.

# **CHAPTER II**

# REVIEW OF LITERATURE

# 2.1 Conceptual Review

Credit operation has played a vital role in each and every financial organization. Many researcher had conducted their financial performance, profit planning, investment etc. but very few researches have been made in the area of lending operation and practice in the context of Nepal. Besides these, there are many books, articles and other relevant studies concerned with lending and investment. Some of the relevant studies, their objectives, findings and conclusion relating to the topic have been reviewed below:

Profits are the prime measurement of success of a firm. The most common objective of a business firm is to maximize profit in one or either way as well as to render service. Moreover, profit is the yardstick of achievement target of an organization. The accounting concept of company profit is a concept of net business income. Profit is the surplus income that remains after paying expenses and providing for that part of capital used for producing revenue. Profit in accounting sense tends to become a long-term objective of a product but also of the development of market for it. Profit is a signal for the allocation of resources and a yardstick for judging managerial efficiency (Lynch and Williamson, 1989).

"Profit is a controversial term: it is defined and viewed in different senses by different people considering various aspects." Usually profit does not happen. Profits are managed before making an intelligent approach to the managerial concept of profit. There are, after all, several different interpretations of the term 'profit'. An economist will say that profit is the reward for entrepreneurship for risk taking. A labor leader might say that it is a measure of new efficiency labor has produced and that it provides a base for negotiating a wage increase. An investor will view it as a gauge of the return on his or her money. an internal revenue agent might regard it as the base for determining income taxes; the accountant well defined it simply as the excess of a firm's revenue over the expense of producing revenue in a given fiscal period" (Lynch and Williamson, 1989).

### **Major Investment of Commercial Banks**

### A. Investment in the Securities

"The third line of defense to meet demands for cash and serving, the quick source of funds is the bank's liquid security holding often called secondary reserves. These assets normally compose more than one third of total assets of banks. These typically include holding of short- term government bonds like treasury- bills, development bonds, etc. and other securities purchased in the open market and readily converted into cash in the financial market. These security bear low risk, low return, but higher liquidity. The remaining securities where the banks invest in are direct and indirect investments, in the sectors by virtue of statutory requirements are imposed. For example, most of the Nepalese commercial banks feel convenient to invest in the rural development bank's shares as this complies both with NRB regulations for priority sector lending and also they get moderate return form them (Subedi, 2004).

"Commercial banks invest their excess funds in the shares and debentures of other companies. They generally invest when there is excess of funds over the required when there is no alternative opportunity to make investment in the profitable sector. Now a days. The commercial banks of Nepal have purchased shares and debentures of regional development banks, NIDC and other development banks, etc. These types of investments are mainly made for their income generating power and for other advantage like tax shelter, ect. Investments are recorded in their cost price or market values whichever is lower" (Subedi, 2004).

### **B.** Loans and Advances

This is the primary source of income and most profitable asset to a bank. a bank is always willing to lend as more as possible since they constitute the profitable source of revenue. This occupies the highest proportion of assets of any commercial banks bearing more than 40% of the assets used. But a bank has to be more careful while providing loans and advances since they may not be realized in a short period of time. And sometimes they may turn into bad debt. Therefore, it is not wise to rely on them at the time of Emergency for all banks (Shrestha,1993).

A commercial bank hardly lends money for a longer period of time. It lends money for a short period of time that can be collected in a short period of time. The commercial banks are never bound to provide long- term loan because It has to synchronize the loans and advances with the nature of deposits they receive. Loans and advances are provided against the personal security of the borrower or against the security of the immovable and movable properties. Banks provide the loans in the various forms such as overdraft, cash, credit, direct loan and discounting bills of exchange (Pradhan, 1999).

### C. Other Assets

The great majority of banks' assets are financial claims. However, banks' assets also include the value of bank buildings, vehicles, equipments, computers (Hardware and Software) and other miscellaneous fixed assets like deferred revenue expenditures, leaseholds and free holds, prepaid expenses and advances. However, only a small portion of total assets is covered in this category (K.C,2000).

## **Major Sources of Funds**

## A. Deposits

The principal liability of a commercial bank I s its deposits collected form general public, business and government agencies. It is a direct claim of outsiders to the bank. The total assets of banks are financed by more than 75% form the deposits. Normally, deposits are classified into three categories: Demand deposits, Saving deposits and fixed deposits (Pradhan, 2009).

Demand deposits are permitted for unlimited check writings, but hey do not bear any interest liabilities. However, a minimum balance is fixed for the depositors. By the viewpoint of banks, these are the cost free deposits but banks are not confirmed to invest them for a longer period, since can be demanded at any time. This is an easy mean of circulating transactions and suitable for business concern.(Pradhan,2009:26)

Savings deposits are normally meant for the individuals, non- profit making organizations and other who are saving motive and also want to earn some interest from the deposits. However, there is a minimum fixed balance. Banks offer interest in the minimum monthly balance to the saving depositors and also permit withdrawals and deposits to these accounts. However, banks impose some constraints in the maximum one- time with drawl limit. If the maximum one time limit is exceeded and

minimum balance is not maintained, no interest is offered to the depositors. These deposits are of somehow stable and banks can feel confirmed to invest them in the medium term financings (Subedi,2004).

Fixed term deposits (also called time deposits) are the major sources for the banks longer term investments as these deposits bear fixed maturity periods. These deposits are offered a stipulated interest rate (normally higher than the savings rate), a fixed denomination of amount and a prefixed maturity period. Banks tend to offer different interest rates to these deposits accounting to the deposit amount and maturity time. The more amount and longer the maturity period, the higher the interest rate and viceversa (Pradhan, 1996).

Nowadays, Nepalese commercial banks have introduced a different type of deposit account: Call deposit. Banks are happy to find the heavy corporate source of deposits stable in the time span. Banks are interested to find the single source of heavy deposits constable to invest in the market. These types of deposits have various benefits. Banks can serve a single corporate deposit or more carefully than various small accounts. The deposits are of constable nature and banks can invest them without hesitation. So, banks provide a special interest rate to such deposit, permit to write checks against them, but also fix a minimum balance for maintaining this account. (pradhan, 1996).

### **B.** Borrowings from the non- deposit sources

A sizable amount of funds stem from miscellaneous liability accounts. Bank assets are supported from other non- deposit liabilities with or without costs. Bank borrowings, placements, overnight placements, borrowing from central banks, foreign banks are some examples of nominal cost bearing sources. However, these are short- term liabilities, due to no obligation for banks to maintain reserve for them. These types of liabilities are also important for banks. Other cast free sources of liabilities are accrued interest payables, deferred expenses, accounts payable, deferred tax liabilities, obligations such as bankers' acceptances, banker's checks, matured time deposits, remittance awaiting disposals and other liabilities (Bhattacharya, 1998).

## C. Stockholders' equity/ Internal Financing Sources.

Every new bank begins with a minimum amount of owners' capital and borrows funds from the public to lever up its operation. These capitals normally account less than 10% value of the total assets. So, banks are the institutions having the greatest financial leverage using from external sources of financing. Though, being a relatively small item, bank's capital account typically includes value of paid up capital, share premium, statutory and other reserves and retained/ ploughed back profits. Usually, the largest item in the capital account is retained earnings, undivided profits, which include accumulated profit over each year after payment of dividends.

The banks are such type of institutions, which deal in money, substitute for money, the deal with credit and credit instruments. Good circulation of credit is very much important for the banks unsteady and unevenly flow of credit harms the economy. Thus, to collect fund and utilize it in a good investment is not a joke for such organization. The secret of successful banking is to distribute resources between the various joins of assets in such a way as to target a sound balance between liquidity and profitability. So there is cash to meet every claim and at the same enough income for the bank to pay its way and earn profits for its shareholders (Sharma, 2009).

Bank is government regulated, profit making organization that operates in comparison with other banks and financial institutions to serve the credit needs of its customers. The primary business of bank is accepting deposit and lending money. Bank accepts deposits from customers who want the safety and convenience of deposit and the opportunity to earn interest on their excess funds. Bank put their depositor's funds to other individuals to other business and to federal state and local government (Shrestha,1993).

A commercial bank must mobilize its deposits and other funds to profitable, secured and marketable sector so that it can earn a handsome profit as well as it should be secured and can be converted into cash whenever needed. Obviously, a firm that is being considered for commercial loans must be analyzed to find out why the firm needs money, how much money the firm needs and when and how it will able to repay the loan (Pradhan, 1996).

Bhattacharya,(1998) in his book has put the recommendation of Tandem committee to prepare this report in 1998 "However, recommendation skills deserve great significance in the sector to credit appraisal and lending breaking away form the additional methods of appraisal. The system proposed by the committee enjoyed upon the banker" (Bhattacharya, 1998:21). "Bank growth and profitability are the result of carefully forecasting funding needs, competitively attracting funds, efficiently borrowing funds and effectively investing, funds in safe but profitable earning assets. Depending on a bank's size and location and on local and national economic conditions, a bank may have adequate, relatively stable sources of low cost funds, or it may have to compete regularly and aggressively for funds at high market prices for an increasing number of banks, the second situation is becoming the norm as more, the second situation is becoming the norm as more and more banks face increasing pressure to attract adequate funds at reasonable costs.

In the word of "credit policies of banks are condition to great extent by the national policy framework, every banker has to apply his own judgment for arriving at a credit decision, keeping of course, bankers and credit policy also in mind" (Charles, J.C1999).

, Lending is the essence of commercial banking; consequently the formulation and implementation of sound lending policies are among the most important responsibilities of bank directors and management. Dell conceived lending policies are essential in a bank to perform its credit creating function effectively and minimize the risk interest in any intention of credit" (Pandey,1996).

Sunity Shrestha said that the commercial banks should not concentrated on the specific sector but should fulfill the credit need of various sector of the economy including agriculture, industry, commercial and social sector of the economy service sector. The commercial banks should very effective while providing loans. While providing loans, the banks should think on the maximizing the economic growth of the country as well as the profit from providing the loan for the operation of the country (Shrestha,1993).

"In India the definition of a business of banking and a large number of permissible functions for banks given in banking regulation act 1948 (BR Act)

Section 5 (b) of the BR act defines banking as accepting for the purpose of lending and investment of deposit of money from public, repayable on demand or otherwise

and withdrawal by cheque draft and order or otherwise. As per definition banking in India signifies.

- a. Acceptance of deposit form public for the purpose of lending and investment.
- b. Repayable on demand or otherwise and withdrawal by cheque draft and order or otherwise.

According to the section 5 (c) of this act, banking company is a company, which transacts the business of banking of India.

Section 7 of the BR act makes it compulsory for every company carrying on the business of banking in India to use as part of its name at least one of the following words. Bank, Banking or Banking Company" (Khub, 2000).

"The investment policies of banks are conditioned to great extent, by the national policy framework. Every banker has to apply his own judgment for arriving at a credit decision, keeping of his banker's credit policy in mind" (Rao, 1994).

Banking growth and profitability are the result of carefully forecasting finding needs, competitively attracting funds, efficiently borrowing of funds and effectively investing funds in safe but profitable assets. Depending on a bank size, location and national and local economic conditions, a bank may have adequate relatively. Stable sources of low cost funds or it may have to complete regularly and aggressively for funds at high market process. For an increasing number of banks the second situation is becoming the norms, as more and more banks are facing the increasing pressure to attract adequate funds at reasonable price (Radhaswamy, 1994).

Lending is the essence of commercial banking consequently the formulation and implementation of sound lending among the next important responsibilities of bank's Directors and management. Well conceived lending policies and careful lending practices are essential, if a bank is to perform its credit creating function effectively and minimize the risk interest in any extension of credit (Robinsin1951).

"Of course one of the primary functions of development in banking is deposit mobilization. Without the deposits coming from the public and savers bank will not

have the resources to lend. With adequate resources, lending can have a wider average tom meet the credit needs of all the sectors of the economy. Deposit and credit are operation always together and each is interconnected. Unless there are advance, deposit cannot rise" (Gautam, 2009).

From the above definition, we can say that the formulation and implementation of sound lending are among the next important responsibilities of bank directors and management. Well lending policies and careful lending practices are essential, if a bank is to perform its credit creating function effectively and minimize the risk interest in any extension of credit.

Due to the showdown on the world economy and deteriorating law and other situation of the country, many sectors of the economy are already sick. When any of the economy catches cold, bank starts sneezing. From this perpective, the banking industry or a whole is not robust. However, bands like Nabil having risk management system, sound capital, adequate provision, quality staff and large client base can withstand any contingencies (Kishi,1996).

Hence, it is felt that appraisal techniques of bank lending in competitive areas having to be more attend towards risk evaluation. A major aspect of this work has been the development of more advanced method for the quantitative measurement of market risk, the extensive trading in financial instruments provides a good supply of prices statics and this is considerable help when it comes to estimating market risks. Much work is now being done in many places to construct models for better management of credit risks which are still by for the largest risk category for banks. The difficulties here however, are greater than in the case of market risk. The estimations of day parameter for model is obstructed by the lack of static, moreover, some advances have been made in the estimation of operational risk, i.e. the risk of losses arises from technical problems or inadequate internal controls. Previously, operational risks had attracted less attention than credit and market risk. It changes the nature of banking operations that have brought them more to the fore (Kishi,1996).

Financial legislation and regulation needed to be sufficient flexible to accommodate the rapid pace of development in the financial sector. It tends to take considerably larger to amend rules than it vows to create new financial product. But there has to be the foundation of minimum requirement for risk management. In addition, the authorities must be increasingly involved in ensuring that institution themselves posses a basic competence in and understanding of risks, that have to be managed, as well as adequate systems for their management rather than issuing detailed risk management instructions. In other words, it has become more important to inspect system, defining in a wide sense, to scrutinize them in particular commitment or market risk. Some supervision can be carried out with the marker assistance. The authorities prescribe as well as encourage a more open presentation of the institutions risked and profitability in different operation such as transparency emphasize the banks demand on each other as well as what customer requires from their banks (Shrestha,1993).

Effective credit risk management allows redacting risk and potential NPA. It also offers other benefits. Once banks understand their profitable business and thus price product and according to the risks. Therefore, the banks must have on explicit credit risk strategy supported by organizational changes, risk measurement techniques and fresh credit processes and system. They are fine crucial areas that credit risk strategy supported by organizational changes, risk measurement techniques and fresh credit processes and system. They are fine crucial areas that credit management stand focus on.

- i. Credit sanctioning and monitoring process.
- ii. Approval of collateral
- iii. Credit risk arises from new business opportunities.
- iv. Credit exposure relatives to capital or total advances.
- v. Concentration on correlated risk factors.

Apart form these, the bank management should regularly review all the assets quality including portfolio composition, big borrower exposures and development and credit management policy and process. Improving risk management will not be easy o r

quick. However, Nepalese banker loves little choice. Hopefully, the banks adopt good risk management practices and will be able to reach both strategic and operational benefit (Sharma1995).

# 2.2 Review of Nepal Rastra Bank Directives

NRB is the apex institution in the money and capital market. Being the central bank of the nation, it directs, supervise and control the function of commercial banks and other financial institutions. NRB has issued various directives. In order to develop healthy, competitive and secured banking and economic system to ensure national development. The following are the some of the relevant directions that NRB has circulated to the commercial banks.

# 2.2.1 Capital Adequacy Norms

Maintenance of Minimum Capital Fund

Effective from F.Y. (2009/2010) the licensed institutions shall maintain minimum capital fund on the basis of their risk – weighted assets, as follows:

Banks	Required Capital Fund on the basis of weighted risk assets (in percentage)	
	Core Capital	Capital Fund
Group A	6.0%	10%
Group B,C	5.5%	11%
Group D	4%	8%

Source: NRB-Directive 2010

## **Classification of Capital**

For the purpose of calculation of Capital Fund, the capital of the banks shall be classified into the following 2 components.

Clarification: For the purpose of this section, "Capital Fund" means the aggregate of the core capital and Supplementary capital. (NRB Directive-2009/2010)

## a. Core Capital

The amounts under the following heads shall be included in the Core Capital:

- a. Paid Up Capital
- b. Share Premium
- c. Irredeemable Preference Shares
- d. General Reserve Fund
- e. Accumulated Profit and Loss Account
- f. Capital Redemption Reserve
- g. Capital Equalization Reserve
- h. Other Free Reserve

The following items shall be deducted for the purpose of calculation of t he Core Capital.

### a. Goodwill

- b. Excess amount of investment in shares and debentures of organized institutions than prescribed by Nepal Rastra Bank.
- c. Entire amount of investment made in shares and debentures of organized institutions having a financial interest.
- d. Fictitious Assets.

## b. Supplementary Capital

For the purpose of calculation of Capital Fund, the amount under the following heads, not exceeding hundred percent of the Core Capital, shall be included under the Supplementary Capital.

### i. General Loan Loss Provision

Under this head, provision made only against the Pass Loan shall be included.

### **II. Assets Revaluation Reserve**

The amount of Assets Revaluation Reserve can be included for the purpose of calculating Supplementary capital subject up to 2 percent of the Total Supplementary Capital, inclusive of the amount of this Reserve.

## iii) Hybrid Capital Instruments

This includes the following instruments.

- 1. Unsecured, fully paid up instruments which are subordinated to (priority of payment after) depositors and creditors, and available to absorb losses as well as convertible into ordinary capital.
- 2. Instruments, which are non redeemable at the option of the holder except with the approval of Nepal Rastra Bank.

However, the licensed institutions cannot hold (purchase) Hybrid Capital Instruments issued by another licensed institution (NRB-Directive2010).

## i. Unsecured Subordinated Term Debt

It includes unsecured and subordinated debt instruments (Priority of payment after the depositors) with a minimum maturity term of over five years and limited life redeemable preference shares. To reflect the diminishing value of these instruments, a discount (amortization) factor of 20 percent during the last five years shall be applied.

The issue of these instruments shall not exceed 50% of their core capital (NRBD,2010).

- a. Exchange Equalization Fund maintained by the licensed institutions authorized to deals in foreign exchange transactions.
- b. Additional amount of loan loss provision maintained in excess of the requirement.
- c. Provision for possible loss on Investment and investment Adjustment Fund.

## **Total Weighted Risk Assets**

For the purpose of calculation of capital fund, the risk- weighted asset has been classified into following two components:

- a. On- Balance Sheet Risk- Weighted Assets:
- b. Off- Balance Sheet Risk Weighted Items.

## **Capital Fund Ratio**

This ratio would measure the total capital fund on the basis of total risk weighted assets of licensed institutions. The capital Fund Ratio shall be determined as follows (NRB-Directive2010):

Capital Fund Ratio = Core Capital + Supplementary Capital X 100

Sum of risk – weighted assets

Sum of risk – weighted assets = Total on balance sheet risk weighted assets + Total of-balance sheet risk- weighted items. Actions for not complying the directives Relating to Capital Fund

Where any bank does not maintain minimum Capital Fund, any of the following actions may be initiated (NRB-Directive2010):

- a. Suspension of opening new branch.
- b. Suspension of access to refinancing facilities of Nepal Rastra Bank.
- c. Restriction on lending activities of the licensed institution.
- d. Restriction on acceptance of new deposits.
- e. Any actions may also be initiated under Section 100 of Nepal Rastra Bank Act- 2058.

### 2.2.2 General Loan Loss Provision

Bank shall classify the loan and advances in accordance with Clauses 1 to Section 7, as follows (NRB-Directive2010):

Classification of Loan and Advances

### a. Pass

All Loans and Advances which are not past due or past due for a period up to 3(three) months shall be included in this category.

### b. Substandard

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

### c. Doubtful

All loans and advances which are past due for a period of more than 6 months or up to 1 (one) year shall be included in this category.

### d. Loss

All loans and advance which are past due for a period of more than 1 (one) year shall be included in this category.

#### **Notes:**

- There is no restriction in classifying the loan and advances from low risk category to high risk category by the banks. For instance, loans falling under sub standard may be classified into Doubtful or Loss, and loans falling under Doubtful may be classified into loss category.
- 2. The term loan and Advances also includes Bills Purchased and Discounted.

Prohibition to Recover Principal and Interest by Exceeding the Overdraft Limit

Principal and interest on loans and advances shall not be recovered by overdrawing the borrower's current account exceeding the limit of overdraft facility (NRB-Directive2010).

# **Loan Rescheduling and Restructuring**

The term "reschedule" means process of extending repayment period/ time of credit taken by the borrower and the term "restructuring" means process of changing the nature or conditions of loan/ facility, adding or deleting of conditions and change in time limit (NRB-2010).

Banks may reschedule or restructure loans only upon submission of a written Plan of Action by the borrower, which is resurrecting on the following grounds. The basis of loan restructuring or rescheduling shall be enclosed with each credit files.

- a. Evidence of existence of adequate loan documentation and securities.
- b. Licensed institution is assured on possibility of recovery of restructured or rescheduled loan.

## **Loan Loss Provisioning**

The loan loss provisioning on the outstanding loans and advances and bills purchases shall e provided on the basis of classification made as per this Directives, as follows:

Classification of Loan Loss Provision

Pass 1 percent

Substandard 25 percent

Doubtful 50 percent

Loss 100 Percent

Full provisioning as per sub section (1) shall be made against the uninsured priority, deprived sector loans and small and medium scale industrial loans.

However, in case of insured loans, the provisioning requirement will be only 25% of the rates stated under Sub- section (1(NRB-Directive 2010).

# 2.2.3 Regulation Relating to Investment in Share and Securities by Commercial Banks (NRB-Directive 2010).

- Arrangement as to implementation of investment policy under the Approval of the board of directors.
- 2. Bank should prepare written policy relating to investment in share and securities of the other organized institutions. Such policies should be implemented only under the approval of board of directors.
- 3. There should be one restriction as to investment by the banks in the securities of organized Nepal Government and other securities by NRB.
- 4. Banks may invest in shares and securities of any one of organized institution not exceeding 10% of paid up capital of such organized institution. Any amount of investment more in excess of this limit for pursue of calculation of the capital fund should be deducted from the core capital fund.
- a. The amount of investment in shares and securities of any one organized institution in which the banks has financial interest should be limited to 10% of the paid up capital of such company and the cumulative amount of such investment in all the companies in which the banks has financial interest

should be limited to 20% of the paid up capital of the bank. For the purpose of calculation of capital fund, the amount of such investment in shares and securities should be deducted from the core capital fund.

- b. The total amount of investment should be restricted to 30% of the paid up capital of bank. Any amount of investment make in excess of 30% of paid up capital of bank for the purpose of calculation of capital fund should be deducted from the core capital fund.
- c. Bank should invest in the shares and securities of organized institution, which are already listed in stock exchange where arrangement exists for listing within one year.
- d. Where the shares and securities are not listed within the period prescribed provisioning equivalent the whole amount of such investment be provided and credited to investment adjustment reserve. The outstanding amount in such reserve should not be utilized for any other purpose till the said shares and securities of the organized institution in listed. The outstanding amount in investment adjustment reserve should be included under supplementary capital.
- e. Banks should not invest in any shares, securities and hybrid capital investment issued by any banks and financial institution licensed by NRB. When such investment exists prior to issuance of this directive, such investment should be brought within the restrictive limitations imposed by this directive within three years i.e. by the close of fiscal year 2066/067/

## 2.2.4 Directive Relating to Interest Rate

Banks will be free to fix interest rates for both deposits and lending, including fixation of types of interest and procedures.

## **Interest Rate to be Approved**

Banks shall implement the interest rates for deposits and lending, procedures for calculation of interest, penal interest, commission and service charges only after approval. Banks cannot vary (upward or down ward) the interest rate for deposits in excess of 0.5 percent over the published rates (Directive, 2010).

### **Submission of Return on Interest Rate**

Banks shall compulsorily submit particulars of interest rates on deposits and lending to banks and Financial Institutions Regulation Department and related Supervision Department Nepal Rastra Bank within 7 days of each quarter ending. Further, banks shall submit the whole arrangements and procedures relating to interest rates as per the Clause 3 above at the time of initial implementation and changes made there to within 7 days (NRB Directive 2010).

### **Interest Rates to be Published**

Banks shall publish the particulars as per Clause 4 above at times of each amendment made in the interest rates on deposit and lending in National daily newspapers

## **Recognition of Interest Income:**

The interest accruals on loan and advances shall be recognized as income on cash basis. Interest accrued but not realized in cash shall be recognized in the year of cash realization. Interest receivable for a period shall be debited to "Interest Receivable Account" and credit to "Interest suspense account".

## **Action for Non – compliance**

If the licensed institutions found not complying with the directives relating to branch/offices, actions may be initiated under the Nepal Rastra bank Act. 2058.

### 2.2.5 Single Borrower Obligor Limit

### **Fixation of Limit on Credit and Facilities**

Bank may extend to a single borrower or group of related borrowers the amount of fund based loans and advances up to 25 percent of the Core Capital Fund and non fund based off- balance sheet facilities like letters of credit, guarantees, acceptances, commitments up to 50 percent of its Core Capital Fund. Fixation of limit on credit and facilities to single borrower shall be made on the basis of Core Capital Fund as per the latest quarterly balance sheet certified by the Internal Auditor of concerned institution. The fund – Based loan and Non- Fund Based facilities are separate and accordingly the single borrower limit shall not be calculated by aggregate (NRBDirective2010).

# 2.3 Lending Approval Process in Practice

The return of any banks basically depends upon its sound lending policy, lending procedure and investing its fund in different securities and different sectors of market. A sound loan approval policy is not only prerequisite for bank profitability but also crucially significant for the promotion of commercial saving of backward country like Nepal. There are basically five principles for the sound lending policy (NRBDirective2010):

# 1. Liquidity:

Liquidity refers to that state of position of a bank that pronounces its capacity to meet its entire obligation. In other words, it refers to the capacity of bank to pay cash against deposits. People deposit money at the bank in different accounts with the confidence that the bank will repay their money when they need. To maintain such confidence of the depositors, the bank must keep this point in mind while investing its excess fund in different securities at the time of lending. So that it can meet current or short- term obligation when they become due for payment (Banking and financial statistics 2010).

# 2. Safety and Security:

Bank takes care while investing its fund. It should never invest its fund in those securities, which are too volatile since a small change causes a great loss. The bank should accept that type of securities, which are commercial, durable, marketable and of high market value. For this purpose, MAST should be followed: M = Marketability, A Ascertain ability, S= Stability, T= Transferability (Pradhan,1999).

## 3. Profitability:

Commercial banks invest on those sectors that derive the maximum income. Hence the investment or granting of loan and advances by them are highly influenced by profit margin. Generally the profit of commercial banks depends upon the interest rate of the bank, volume of loan provided, time period of loan and nature of investment on different securities (Sharma 1995).

### 4. Suitability:

Bank should always know the purpose of loan demanded by a customer because if the borrower misuse the loan granted by the bank he will never able to repay interest and principal. In order to avoid such circumstances, loans should be allowed to the selected borrowers and it should demand all the essential detailed information about the scheme of project in which the bank is lending for. Bank must keep I n mind the overall development plans of the nation and the credit policy of the concerned authority i.e. Central Bank (Sharma1995).

### 5. Diversification:

Diversification reduces the risk of recovery. The bank must not invest the funds in specific sector but to the various sectors so that when something goes wrong in one particular sector other will recover (Khatri, 2004).

## **Approving Authority**:

The Board delegates the authority for making investment as specified in this policy to the Chief Executive Officer, Chief Credit Officer and Head Corporate/ Consumer Lending of the Bank as under:

### 1. Corporate Loan:

- a. Chief Executive office (CEO) has authority for secured funded limits of existing and new is NPR 200 Million & 100 million and also for secured on funded limits of existing and new is NPR 400 Million & 200 respectively.
- b. Chief Credit Officer (CCO) is authorized to approve secured funded limits of existing and new is NPR 150 Million & 75 Million and also for secured non funded limits of existing and new is NPR 300 Million & 150 Million respectively.
- c. Head corporate/ consumer lending is authorized to approve secured funded limits of existing and new is NPR 100 million & 10 Million and also for secured non funded limits of existing and new is NPR 200 million & 100 Million respectively.

### 2. Consumer Loan:

a. Chief Executive Officer (CEO has authority for Margin Lending, Home Loan & Auto Loan are 200 Million, 400 Million & 100 Million respectively.

- b. Chief Credit Officer (CCO) is authorized to approve for Margin Lending, Home Loan & Auto Loan are 150 Million, 300 Million & 75 Million respectively.
- c. Head Corporate/ Consumer Lending and KBO Branch Manager is authorized to approve for Margin Lending, Home Loan & Auto Loan are 5 Million, 2.5 Million & 2 Million respectively.

# 2.4 Procedure for Application, Appraisal and Sanction of Loan

The various steps involved in the loan appraisal, approval and disbursement process are set out below (www.Nabilbank.com):

## **Business plan**

A borrower interested in taking a loan should approach the Marketing and Planning Division at the bank and make an application by filling out the project information sheet available with the above division regional offices. In this the prospective borrower has to furnish the following:

- Technical details:

Proposed financial structure:

- Expected raw material requirement and
- Certain legal information relevant to the proposed project.

The project information share (PIS) is to be submitted along with project feasibility report and documents certifying the legal status of the company. (www.Nabilbank.com)

# Processing of business plan

In the event of processing of business plan at the branch, the plan is scrutinized by the branch officials related to credit department. They prepare the loan proposal, which includes the feasibility of the plan.

At the central office business plan along with the loan proposal submitted by the branch well recommended by branch in- charge/ credit in – charge is scrutinized by a project screening committee headed by the general manager and consisting of deputy general managers' sectoral division chiefs and chiefs of the bank (Pradhan, 2009).

## Screening the business plan

The duly filled out PIS along with detailed feasibility report will be processed by credit department and then referred to the project screening committee for review as to the desirability of the project in the context of national priorities legal obligations, national and international policies and banks own credit policies.

After analysis of the internal and external factors the credit in charge focuses to the security against the lending. Such credits are extended by bank against security of properties. Security may be collateral of fixed asset/ stock of the unit or both. Credit in- charge observes the sight of the properties. The parameters for good security define the approaches of road, electricity water and other civil amenities. Importance is given to the property situated in the urban areas. If the proposal is accepted, the applicant will be advised to file the formal loan application from for financial assistance (Pradhan, 2009).

## Loan application

In the event of processing the loan application at the office, the application is forwarded by the credit department to the concerned sect oral division. Each sect oral division is entrusted with the following functions:

The concerned sectoral division appraises the project, and decides its viability on the basis of technical and financial soundness of the loan proposal, the marketability of the products as well as the proposal credit worthiness of the applicant borrower. Once the viability of the project is ascertained, at central office takes a decision as of whether the project will be financed solely by concerned bank or by a consortium formed with some other banks. Age Criteria for co- applicant is 21 years at the time of application received and not older than 75 years at loan maturity. Subsequent to appraisal an appraisal report is tabled before the sanctioning authority for final decision and approval (www.standardcharterd.com).

## **Loan Sanction**

Upon proper scrutiny of the loan appraisal the sanctioning authority approves the proposal and prepares a loan sanction letter. The sanction letter spells out he details of the loan, the amount and its purpose, the manner of disbursement the securities to be pledged against the loan (usually, the entire fixed assets of the project are pledged: extra collateral is taken for working capital loan is for those term loans which are

intended to finance a movable assets like machinery) the repayment schedule, and other terms and conditions of financing (www.nabilbank,com).

Upon receipt of the approval from sanctioning authority at the branch the credit department issues a credit facility offer letter to t he borrower. This letter spells o ut he details of the loan, the amount and its purpose, details of charges, the manner of disbursement the securities to be pledged against the loan and other terms and conditions to be implemented by t he bank and the borrower.

The loan documentation charges taken by the banks is

- NPR 1500 up to NPR 1 million loan
- NPR 3000 u to NPR 10 million loan
- NPR 5000 above NPR 10 million loan
- Or minimum NPR 1000 or 1% of the loan amount whichever is higher

If the borrower is satisfied with the offer the borrower signs the offer letter and the agreement is a made. Upon acceptance of the offer of the bank the borrower is required to adhere to the terms and conditions stipulated in the offer letter (www.nabilbank,com).

# **Execution of Legal Formalities**

When the memo is approved from the top level, some legal formalities are obtained before sanction of loan. The legal formalities are obtained in accordance to the nature of securities and loan. Now, let us discuss about the type of securities and methods of execution.

# **Moveable securities**

Moveable securities include Current Assets, Business Stock. Merchandise Items, Shares, Debentures, Government Bond, Treasury Bills, Fixed Deposits Receipts, Vehicles under Hire Purchase and Export Documents (Subadi, 2004).

### **J** Immovable Securities

Immovable securities are fixed properties such as land and building, heavy plant and machines installed within factory premises. Such types of security can not be replaced from one place to other place: therefore it is called immovable securities (K.C,2000).

# **Mortgage**

The fixed properties of immovable properties are taken as a security by way of mortgage. Mortgage formality shall be done by preparing mortgage deed. Required information is carried out from Title Deed and valuation report. Mortgage is the transfer of an interest in specific immovable property for the purpose of securing bank's finance. There are two kinds mortgage as mentioned below (K.C,2000):

# **J** Equitable Mortgage

Equitable Mortgage is an agreement, express or implied where the interest of property shall pass to the bank as security for a debt due or toe become due. It is created by a simple deposit of original title deed with an intent letter of property owner (K.C,2000).

# **Legal Mortgage**

In legal Mortgage the property owner transfer his legal title I n favor of bank under "Dristi Bandhak" where the bank gets legal estate in the property and he will endow with all sorts of right and remedies if required (K.C,2000).

# Pledge

Various types of merchandise items and the business stocks can be considered as security for short term credit facilities by way or pledge arrangement. In this arrangement, bank has effective control over the security and the customer cannot allow transacting over the security before clearing dues outstanding. Furthermore, various types of Government Bond, Treasury Bills and Development Bonds where the lien from the issuing authority is not possible (as observed from the present practice) is also considerable as a pledge item to provide bank advances to its customers. In this situation customers are required to simply pledge the certificates to the bank and bank will make necessary arrangement (K.C,2000).

## **Hypothecation**

Banks can make hypothecation fixed assets and current assets of their customers for the purpose of availing loans and advances against the security of the same. Hypothecation documents are duly signed by authorized person of Loan Company. Goods under hypothecation is under control of customers itself and he is allowed to do the transaction on goods solely, however he is also required to adjust the liability created against hypothecation according to change in the level stocks/ goods. Under hypothecation there is also an arrangement by which bank can convert the hypothecated item into pledge, if required (www.standardcharterd.com).

# Lien

Various types of documents such as share certificates of listed company. Fixed Deposit receipt of different banks and negotiable instruments can also be considered as a security for loans and advances under lien arrangement of the same. It can be done with request to issuing authority by making lien over the same under permission of owner of such documents. The owner of such documents will provide such documents. The owner of such documents will provide such certificates duly discharge in favor of bank along with letter of lien signed by him (www.Nabilbank.com).

### Hire purchase

Hire Purchase transaction is a kind of bailment where the hirer pays money in consideration of the use of goods yet the ownership continues to remain with the bank and who gives the commodities goods on hire purchase finance After being finalized to grant the loan, bank obtains/ executes various documents to make legally liable to lone for repayment of sanctioned loan. This process is called documentation. Since, different documents are required to be executed accordance to the nature of loan, normally following documents are necessary (www.Nabilbank.com).

- Promissory Note
- Letter of Continuity (it is filled up for the continue use of those facilities as provided)
- Letter of Arrangement (it is the commitment to the bank by the borrower to arrange the repayment of loan)
- Letter of Disbursement
- Hypothecation of entire current assets and fixed assets.
- Personal guarantee of all the directors and the property owners.
- Mortgage Deed.

### **Loan Disbursement**

Usually, loan is disbursed maintaining a 7525 loan/ equity ratio at any stage of the project. For example, the first disbursement may be made against land and building to the extent of 75% of the total cost of the land and building and the disbursement is made only when the promoter has purchased the land and completed the construction of the building at least up to plinth level through equity financing (NRBDirective2009). Similarly, the bank may disburse loan for the purchase of machinery by opening a letter of credit, ensuring however that out to the total investment, including that to be made for the machinery, 40% is out to once operation are about the start, the concerned sectoral division appoints a team to prepare a project completion report (PCR).

At the time of disbursement of loan bank charges 1% as the service charge of loan amount (www.Nabilbank.com).

# 2.5 Loan recovery procedure

- After the client enjoys the facility they have to return the fund within the purposed time period. The working capital loan is given for the one year period and has to be renewed every year on the request of the client. The repayment schedule of the loan has different methods as mention below (NRB dire-2010):
- Term loans are granted for a maximum period of 15 years, depending on the nature and debt servicing ability of the project. And whole amount of principal as well as interest must be settled within the given time period (NRBdire-2010).
- Principal dues are payable in monthly installments where as interest is payable on quarterly basis.
- A grace period (moratorium) for repayment of principal is granted on the basis of the time required for the project to come in to operation and interest dues during the construction period are capitalized. And this moratorium period up to 1 year is in the practice of the commercial bank.
- Short- term loans of working capital loans may be granted for a period of 1 to 3 years and are subject to renewal.

- Repayment of interest become due on quarterly basis, as follows:
  - o End of Chaitra (Mid April)
  - o End of Ashad (Mid July)
  - o End of Ashwin (Mid of October)
  - o End of Poush (Mid of January)
- In the event of failure of payment of interest the interest charged on Ashad (mid- June to mid July) and Poush (Mid December to mid January) will automatically be capitalized after one monthly and the capitalized interest will carry the same interest rates as on the pertinent loan.
- The payment of the retail lending is based in the EMI (Equal Monthly Installment) basis where the principal and the interest is paid every end of the month. In this method of repayment of the loan the borrower have to pay equal installment every month for the given time period.
- If the borrower want to pay the loan before the maturity of the granted loan then the bank charges panel of additional 1% charged form the sanctioned loan as the premature settlement of the loan. And in generally practice of the commercial banks the prepayment charges are.
  - o 2% of amount prepaid before 1 year.
  - o 1% of amount prepaid after 1 year
  - o Partial payment allowed after 1 year only
  - o Service Charge 1% of loan amount of loan sanction.

## 2.6 Review of Related Studies

### 2.6.1 Review of Articles

In Nepalese context, very few studies can be found in the topics of finance. But there are some independent studies, which are related to the topics are listed below.

**F. Morris** (1990), in the discussion paper has concluded that "most of the banks concentrated a compliance with central bank rules on reserve requirements, credit allocation and interest rate. While analyzing loan portfolio quality operating efficiency and soundness of bank investment management has largely been

overlooked. The huge loosed now found in the banks portfolio in many developing countries are testimony to the poor quality of this oversight investment function.

He further adds that mismanagement in financial institutions has involved inadequate and over optimistic loan appraisal, tax loan recovery, high risk diversification of landing and investment high risk concentration, concocted and insider landing, loans mismatching. This has led many banks of developing countries the failure.

Shrestha Sunity (1993) in her research "Investment Planning of Commercial Bank in Nepal" has made remark table efforts to examine the investment planning of commercial banks in Nepal.. Since investment policy of commercial banks can be done on the basis of fiscal policy of the government and regulatory procedure the central bank, investment are not made in professional manner. Since investment planning and operation of commercial banks in Nepal has not found satisfactory in terms of profitability, she has suggested, "Commercial Banks should take their investment function wit proper business attitude and should perform lending and investment operation with proper analysis of the projects."

The banking sector is very much affected by t he non performing loan and it is estimated that non performing loan in Nepalese banking system is around 16%. So that it has serious implication on economic performance of the country.

Mr. Kishi Dev Lal(1996) in his article states. "The changing face of the banking sector and the HMG/N recent budgetary policy "concludes the following an introduction of the reform in the banking sector as an integrate part of the liberal economic policy, more banks and fiancé companies have come up as a welcome measure of completion. However because of poor investment policies and lack of internal control the two governments controlled banks, Nepal Bank Ltd and Rastriya Banijya Bank's non-performing assets have increased substantially. Now, Nepal Rastra Bank has awarded the management contact to foreign companies to improve the condition of non performing assets. The policy of giving management is professional consultant is a part of the financial sector reform policy of NRB.

**Khatri Sudhir**(2004)"The financial sector is facing major challenges of high NPL of the banking sector, which comes around 18% of the total loan but it the loan classification is made according to least international practice, it is assumed to exceed

30% credit demand is being met largely by non-institutional source i.e. private money lender, merchant trade, individual and land lord at very high rate of interest, which is 2-3 times higher then of institutional source, this shows that the unorganized financial sector is playing a major role in Nepalese economy. The liquidity a major role in Nepalese economy. The liquidity position of the banking sector is rated as high as 24%, but the productive sector of the economy is starved by credit crunch. This has created a paradoxical situation in banking sector. He has given some suggestions to improve the Nepalese financial sector: The financial institutions especially CBs have to identity new area of investment to increase loans and advances in reducing the liquidity position. With the rapid growth in the number of banks and financial institution, deposit insurance scheme is a must. The principle reasons for introducing such deposit insurance should be one of the social justice rather than economic justification in order to protect the interest of the small depositors. In this condition, this scheme should be expedited to implement.

**Sharma Radha** (2009),has presented with the objective to make analysis of commercial banks lending to the Gross Domestic product (GDP) of Nepal. She has set hypothesis that there has been positive impact of landing of the commercial banks to the GDP. In research methodology she has considered GDP as the dependent variable and various sectors of lending dependent variable and various sectors of lending viz. agriculture, industrial, commercial service and social sectors as independent variables. A multiple regression techniques have been applied to analyze the contribution.

The multiple analyzes have shown that all the variables except service sector lending has positive impact on GDP. Thus in conclusion, she has accepted the hypothesis i.e. there has been positive impact by the lending of commercial in various sectors of economy, expect service sector investment.

"A study on deposit and credit of commercial banks in Nepal concluded that the credit deposit ratio would to 51.30%, other things remaining the same. In Nepal that was the lowest under the period of review. Therefore, he had strongly recommended that the joint venture banks should to give more credit entering new fields as far as possible, otherwise, they might not be able to absorb even the total expenses.

### 2.6.2 Review of Thesis

In the topics of lending operation and practice of joint venture banks in Nepal, very few researches have been made. All the research which is made on this field are also not in depth and detailed. An attempt is made here to review some of the research, which has been summated in lending operation in the context of Nepal and by the help of which also I have mad this proposal. They are as follows.

Mr.Khadka Raja Ram(1998) has conducted a research on "A study in the investment policy of Nepal Arab Bank Ltd. in comparison to other joint venture banks of Nepal has recommended, "The bank should utilize its deposit account as loans and advances to get success in competitive banking environment. Loans and advances are the profitable asset for the banks but ineffective management of the loans and advance's creates the serious. Problems to the banks and the major reason behind the bank liquidation and failure could be the weakness of the loan management.

Mrs Mahendra Mandala(2005), in his thesis paper "A Comparative Financial Performance Appraisal of Joint Venture Banks.", has studied primarily three Joint Venture Banks i.e. NABIL, NGBL and Nepal Indosuez Bank Ltd. His main objectives is to find out the both banks, NGBL and NABIL have mobilized the debt funds in proper way for generating more return but Nepal Indosuez Bank (NIBL) could not mobilize as NABIL and NGBL. He has recommended that all the banks should provide their facilities in rural areas and encourage the small entrepreneur's development programmes play merchant role, mobilize the deposit funds in productive sectors and grant priority to the local manpower.

He has not attempted to show the investment policy and concentrated only on financial performance of JVBs, therefore if can not represent the performance appraisal of JVBs. His study is comparative study of only three JVBs.

**Mr Subedi Rajan** (2006) entitled "A Comparative Study of Financial Performance between Himalayan Bank Limited and Everest Bank Limited" of the period from 2000 to 2005. He has outlined his major findings as follow:

The mean and total loans and Advances to total saving deposit ratio of EBL is greater than that of HBL and the coefficient of variation between the ratios of HBL is less than EBL. It means that the ratio of HBL is less than EBL is more uniform than EBL According to analysis, it found that EBL is more employing its saving deposit in term of loans and advances than that of HBL. So, loans and advances to total saving deposit ratio appear better in EBL than HBL.

The mean total investment to total deposit ratio of EBL is significantly greater than that of HBL but the coefficient of variation between the ratio of HBL but eh EBL. It means that the variability of the ratios of HBL is more consistent than that of EBL. According to analysis, it if found that EBL is more successful in utilizing its resources and investment.

However, he failed to give his overall conclusion regarding the superiority of the financial performance of these two banks during the period of the study (200-2005). He has also put several recommendations out of which few important recommendation are outlined here.

The liquidity of a bank many of affected by external as well as internal factors such as the interest ratio, supply and demand position of loans, saving to investment situation, central bank requirements and the growth or slackening tending policies management capability. HBL has maintained the ratio of cash and bank balance to total deposit considerably lower tan that of EBL. So, EBL is recommended to increase cash and balance to meet loan demand.

Mr Ojha Lila Prasad (2008), has conducted a research on "Lending Practices: A study of Nabil Bank Limited, Standard Chartered Bank Nepal Limited and Himalayan Bank Limited"

The measurement of the study reveled that the mean current ratio of all three banks is not widely varied. All the banks are capable in discharging their current liability by current assets. The ratio of liquid fund to current and total deposits has some degree of deviation among the banks as compare to current ratio. Cash and bank balance to interest sensitive liability has measured the liquidity risk arising form fluctuation of interest rate in the market. The measurement of lending strength in relative term has revealed that t he total liability to total assets of SCBNL has the highest ratio. The steady and high volume of loans and advances throughout the years has resulted Nabil's ratio to be the highest.

Mr Shrestha Upendra(2008), has conducted a research on "Investment Practice of Joint Venture Banks in Nepal". He has selected three joint venture banks i.e. Nabil

Bank Limited, Standard Chartered Bank Limited and SBL Bank Limited for the study of lending and investment practices.

Commercial banks are more emphasized to be making loan on short term basis against movable merchandise. Commercial banks have lots of deposits but very little investment opportunities. They are even discouraging people by offering very low interest rates and minimum threshold balances.

He has concluded that since the liquidity position of Nabil and SCBNL have not found satisfactory. It is therefore, suggested them to improve cash and bank balance to meet current obligations. SCBNL's loan and advances to total deposit ratio is lower at all, therefore it is recommended to follow liberal lending policy for enhancement of lend mobilization.

It was found that SBI had not invested its fund on share and debenture of other companies. It is suggested to enhance off balance sheet transactions, diversifying investment, open new branches, play merchant banking role and invest their risky assets and shareholders fund to gain higher profit margin. Nabil and SCBNL are recommended to increase cash and bank balances to meet current obligations and loan demand.

The above finding showed that there are some conflicting statements, which are obviously not matching with his statements of the problems. This study ignored the industry average and also failed to figure out what is right industry like banking among the excess of investment and advances. Again, he thought liberal lending policies to solve the problem to increase the level of loans and advances. But somewhere in his recommendation, he has warned commercial banks to increase the level of investment to government securities or other safe instrument just to avoid risk arising from lending. From this, it can be concluded that Mr. Shrestha has made his entire conclusion absolutely and he has not made any relative analysis of the pros and cons of the entire factor, affecting the study.

Nabil has deployed the highest proportion of its total deposits in earning activities and this ratio is significantly above the ratios of other two banks. This is the indicative of that in fund mobilizing activities Nabil is significantly better than SCBNL.

Mr. Kafle Dirgha Narayan, (2009) has concluded his study entitled "Non-performing loans of Nepalese commercial banks." The researchers mean objective of the study was to know the problems of the non-performing loans and its effect in the ROA and ROE of the Nepalese commercial banks and to find out whether the Nepalese commercial banks are following the NRB directives regarding loan loss provision for non-performing loan or hot.

Through the research Mr. Kafle has found that the no banks has been following NRB's directives regarding the loan loss provision. He also conclude that the return on assets (ROA) and return on equity (ROE) of the bank deposed upon the NPLs. The high degree of negative correlation between NPL and ROA and the NPL and ROE clearly indicates that there is inverse relation between them. He has recommended that for the smooth operation of the commercial banks, the NPLs should be controlled for this banks should provide necessary training regarding loan management to the manpower's. In order to remove, the NPLs, banks should take enough collateral so that banks can recover its loan amount. For the loan loss provision as per the NRB directive and to reduce the NPL, the bank management should be effective and the NRB's monitoring and regulation is necessary.

Mrs Gautam Sabitri(2009), in her study entitled "Impact and Implementation of NRB Guidelines (Directive of Commercial banks – A study of NABIL Bank Limited and Nepal SBI Bank" have been fully implantation the NRB's directives.

Capital adequacy Ratio of NABIL and Nepal SBI are 13.40% and 12.86% respectively, which are more than 9%. Banks are following the directives but in same cases such like supplementary capital and balance as NRB there is shortfall. The excurses amount of total deposit in balance of NRB there is shortfalls. The banks have categorized the loan amount into four diffident categories as per NRB's directives. The increasing loan loss- providing amount decreased the profit of the banks. The charge in the single borrower limit has brought down the limits of the fund based and non- fund based and non- fund based loans which have resulted to reduced loan exposure to banks.

In her thesis she found that both NABIL and SBI banks has not increased supplementary capital as it has shortfall in comparison with NRB guidelines and to

meet the supplementary capital adequacy ratio even thought it can be compensated by the excess amount of core capital. The Supplementary capital needs to be increased by Rs 122.74 million in NABIL. Bank and Rs 125.57 million in Nepal SBI Bank. She says liquidity and profitability are like two wheels of one cart so banks cannot run in the absence of any one of them. One can be activated only at the cost of the other. Only liquid banks can attract loan core deposit, which helps in reducing interest expenses and give loan to good customer at lower rate. Which helps in reducing interest expenses and give loan to good customer at lower rate, which results in requirement of less provision and high net profit. So banks should increase their primary reserve now to maintain the liquidity risk due to scrap out the secondary reserve on the basis of findings. NABIL Bank has shortfall of Rs 140.74 million thus NABIL has to increase its balance at NRB by such amount for better performance even after adding 1% excess amount of ash of total deposit.

Mrs Karmacharya Sabina(2010), in his thesis paper "A Study on the Deposit Mobilization by the Joint Venture Banks" has mentioned that the bank has successfully maintained its liquid asset position but could not mobilize its resources efficiently. He has concluded that Nepal Bank's utilization side is weak as compare to the collection of resources. He suggested for extending its branches, so NBL's deposit collection and also long-term as well as short-term credit may increase. He has recommended not to consider security factor only but to provide loan to genuine projects without securing.

Mr Poudel Sashi(2010), in his thesis entitled "A Comparative Analysis of Financial Performance between NBL and NGBL", has drawn some major findings. The main objective of his study was to comparatively analyze the financial activities of the banks. He found that although the liquidity position of NBL was better than NGBL, on the whole the current assets of these banks were adequate to meet the current liabilities. NGBL had better credit position than NBL in terms of short term investment. NBL had better turnover and was highly leveraged than NGBL. Joint

venture banks such as NGBL was fast growing and the overall profitability were higher shares, government owned commercial banks such as NBL had higher expenditure and the profit making capacity was lower and gradually decreasing.

Financial scenario and effectiveness of the banks has been changed in due period of time because of increase of number of financial institution in Nepalese economy. And it is observed that it is essential to study effectiveness of lending operation of commercial banks taking samples of two banks; NBIL Bank Limited and Standard Chartered Bank Limited to support in fulfilling research gap. The review of above relevant literature has contributed to enhance the fundamental understanding and knowledge, which is required to make study meaningful and purposive. There has been lots of article published in field of investment policy, loans and advances of commercial banks. There are various researches available on investment analysis and policy of commercial banks, impact and implementation of NRB guideline in commercial banks but there are not sufficient researches available on lending aspect of commercial banks. In addition to this though another person had done on "lending operation" with reference other commercial banks. I am doing with reference to NABIL Bank Limited and Standard Chartered Bank Limited different from others therefore the research attempts to study in this area. To know the lending operation of these two banks will probably be the first study in this subject matter. So, this study will be fruitful to those interested person parties scholars.

# 2.8 Research Gap

The review of above relevant literature has contributed to enhance the fundamental understanding and knowledge, which is required to make study meaningful and purposive. There has been lots of article published in field of investment policy, loans and advances of commercial banks. There are various researches available on investment analysis and policy of commercial banks, impact and implementation of NRB guideline in commercial banks but there are not sufficient researches available on credit operation aspect of commercial banks. In addition to this, though another person had done on "lending operation" with reference other commercial banks, I am doing with reference to NABIL Bank Limited and Standard Chartered Bank Limited different from others. Therefore the research attempts to study in area. To know the lending operation of these two banks will probably be the first study in this subject matter. So, this study will be fruitful to those interested person parties scholars, professor, students, businessman and government for academically as well as policy perspective.

# **CHAPTER III**

# RESEARCH METHODOLOGY

Pant (2009)"The process of searching again and again to come closer to the truth is known as research." It is a systematic process that investigates something to find out the solutions of a particular problem .Thus, we can now define research as and organized, systematic data based, critical scientific enquiry or investigation in to a specific problem which ultimately generates new knowledge, built a theory, helps to develop policies that support for a rational decision making. Moreover, this can also be define as a knowledge building process which will be undertaken through a systematic organized methodology in to a specific problem for the purpose of finding some genuine answer to a specific problem.

The main objective of this research report is to analyze, examine and interpret the lending and investment procedure of private owned commercial banks with the help of various financial statements, statistical tools and non-financial subject matters. As the study intends to show the effectiveness of lending operation in a concern, it requires an appropriate and research methodology.

# 3.1 Research Design

When the problem is identified, and the related literatures are reviewed the next step prevails which is called the "research design". Research design is like a philosophy of life, no one is with out one, but some people are more aware of theirs and thus able to make more informed and consistent decisions. Similarly, every type of empirical research has and implicit, if not explicit, research design. Because a design always exists, it is important to make it explicit, to get it out in the open where its strengths, limitations, and implications can be clearly understood (Kumar, A.1997).

Research design is a controlling of the data and it helps to collect the accurate information, which is related to the research topic. Research design is the plan structure and strategy of investigation conceived so as to obtain answers to research questions and to control variance through the analysis of data.

The first step of the research design to collect necessary information and data concerning to the study. Therefore, research design means the definite procedure and techniques, which guide the study as profound ways of doing research. In this way a descriptive and analytical study as profound ways of doing research. In this way a descriptive and analytical study will be done. The justification for the choice of these methods is preferred because it concludes reliable data and information covering a long time and avoids numerical complex variables.

## 3.2 Population and Sample

Population or universe to the entire group of people ,events or things of interest that the researcher wishes to investigate .For example , if you are interested in investigating the smoking habits of employees in a chemical factory, then all employees in that factory will from the population 'Pant,(2009). Population refers to the industries of the same nature and its services and product in general. Thus, this research work is designed with credit operation and practice in Nepalese commercial banks. The total number of commercial banks in Nepal is the population of the study. There are 29 commercial banks operating in the country which are the population of this research study. Our of this population, only two banks namely NABIL and Standard Chartered Bank Limited constitute the sample of the study.

### 3.3 Nature and Sources of Data

The data used in this thesis are of secondary type, which have been taken mainly from the published data and financial statements of the sampled banks. There include annual report for the last five years and report of each year. Besides these, the following sources of data are also considered.

- a. NRB reports
- b. Various publications dealing in the subject matter of the study
- c. Various articles published in Newspapers

# 3.4 Data Collection Technique.

For the collection of the secondary data published material have been viewed in various spots such as books by different authors, unpublished, unpublished thesis

report ,journal, world wide website , online library, NRB report, annual report of Nabil and SCBNL so on. To collect these secondary data, the researcher visited campus library of Lumbini Banija campus, Butwal, TU central library and other public libraries too .

## 3.5 Method of Data Analysis

Data collected from various sources are managed, analyzed and presented in proper tables and formats. To analyze the collected data, various tools are used which are as follows.

## 3.5.1. Financial Tools

Different types of financial tools such as liquidity ratio, asset/liability management ratio, activity ratio, profitability ratio are used whenever necessary in this study.

## a) Liquidity Ratio

Liquidity ratio means the liquidity position of a firm. Liquidity ratio, asset/liability management ratio, activity ratio, profitability ratio are used whenever necessary in this study.

### Current Ratio

Liquidity ratio is the relationship of current assets and current liabilities. Current assets are those assets, which can be converted into cash within short period of time. Current liabilities are those items, which are paid with in one year. Current ration measures paying ability of short-term debt the firm. Traditionally, 2:1 is standard ratio, but it is a conservative outlook about the coverage of current liabilities. Currnt ratio is calculated by dividing current asset by current liabilities.

Current Ratio = 
$$\frac{Current \ Assets}{Current \ Liabilities}$$

### Note:

Current Assets = Inventories, Sundry debtors, Cash and Bank balance, Receivable/ Accrual incomes, Loan and Advance, Disposable and Investment etc. Current liabilities = Creditors, short-term loan, Bank overdraft, Cash credit, Outstanding expenses, Provision for taxation, Proposed dividend & Unclaimed dividend etc.

Banking industry has its survival in its ability to credit and its creation ability depends upon its liquidity ratio. The liquidity ratio of banking industry depends upon the banking habit of the people. The present scenario of banking demands the low rate of liquidity. As a financial analytical tool, the following two liquidity ratio has been used to come into the facts and facts and findings of the study.

- a. Liquid fund to total deposit ratio
- b. Cash to interest sensitive deposit ratio

As far as the banking organizations of Nepal, NRB has directed the commercial banks to maintain 2% of the total deposit in its own and to maintain 7% of the demand deposit and 4.5% of term deposit with NRB. This requirement is not applicable in case of foreign deposit. Meetings at least these criteria are considered satisfactory for commercial banks in normal business days.

#### 3.5.1.1 Profitability Ratio

Profitability ratio is the measure of efficiency and the search for it provide an incentive to achieve efficiency. The profitability ratios are these ratios, which indicate the degree of success in achieving desired profit levels. These ratios have also been used to determine the efficiency of the lending, its quality and contribution in total profitability.

## **Return on Equity**

It is in important ratio because it judges whether the firm has earned a satisfactory return for its equity holders or not . It indicates how well the form has deployed the resources of the owners to earn profit. Higher ratio represents sound management and efficient mobilization of the owner's equity. This ratio is calculated by dividing net profit by total shareholder's fund (Net worth).

Return on Equity = 
$$\frac{Net \quad Pr \ ofit}{Net \quad Worth}$$

#### **Return on Assets (Net Profit to Total Assets)**

This ratio is used to measure in terms of the relationship between net profit after tax and total assets. It ,easures the profitability of the firm in term of assets employed in the firm. It reflects efficiency of the banks in utilizing its overall resources. This ratio is caluculated the net profit tax dividing by total assets.

Return on Assets = 
$$\frac{Net \text{ Pr } ofit \text{ After } Tax}{Total \text{ Assets}}$$

## 3.5.1.2 Activity Ratio

Activity ratio measures the efficiency of an organization from various aspects of its operations. These ratios short-term funds. Activity ratios are used to determine the efficiency, quality and the contribution of loans ad advances in total profitability.

Following ratios are used under Activity ratio.

## Loan and Advance to Total Deposit Ratio

This ratio measures how much extent the bank is successful in utilizing the outsider's funds in the profit generating purpose. This is calculated by using the following formula:

Loan and Advance to total Deposit Ratio = 
$$\frac{Loan \ and \ Advance}{Total \ Deposit}$$

### **Total Investment to total Deposit Ratio**

This ratio is calculated to see how efficiently the banks have mobilized their total deposit on investment on investment. Investment function or funds management is gaining a widespread importance in the banking sectors. This ratio is calculated by using the following formula:

Total Investment to Total Deposit Ratio=
$$\frac{Total\ Investment}{Total\ Deposit}$$

#### 3.5.1.3 Asset/Liability Management Ratio

Asset/Liability management ratio measures the proportion of various assets and liabilities in balance sheet. The proper management of assets and liabilities ensure its effective utilization. The banking business converts the liability into assets by the way of its lending and investing functions. Assets and liability management ratio measures its efficiency in multiplying various liabilities in performing assets. The following ratios relating to asset liability management are used to determine the lending strength of subjected banks.

Total asset to total liability ratio = 
$$\frac{Total\ Assets}{Total\ Liabilities}$$

Loans and advance to total asset ratio = 
$$\frac{Loans \ and \ advance}{Total \ Assets}$$

#### 3.5.2 Statistical Tools

The major statistical tools used in this study are standard deviation (S.D), Coefficient of Variation (C.V) and Correlation Coefficient(r).

#### 3.5.2.1 Coefficient of Correlation

The correlation is a statistical tool, which studies the relationship between two variables, and correlation analysis involves various techniques used for study and

measuring the extent of the relationship between the two variables. Correlation is an analysis of the covariance between two or more variables. The effect of correlation is to reduce the range of uncertainty of our prediction. Two variables are said to be correlated if the change in one variable results in a corresponding change in the other variable. Correlation coefficient can be either positive or negative. If the values of the two variables deviate in the same direction i.e. if the increase in the values of one variable results, on an average, in a corresponding increase in the values of the other variable or if a decrease in the values of one variable results, on an average, in a corresponding decrease in the values of the other variable, correlation is said be positive or direct. On the other hand, correlation is said to be negative or inverse if the variable deviate in the opposite direction i.e. if the increase (decrease) in the values of the other variable. It is also likely that there may be no relationship between

the variations of the two series in which case there is said to be no correlation between them.

$$r = \frac{n - xy Z - x, y}{\sqrt{n - x^2 Z(-x)^2} \sqrt{n - y^2 Z(-y)^2}}$$

Where,

r = Correlation coefficient

n = Number of years

 $\phi x = Sum \text{ of } X \text{ series}$ 

 $\phi y = Sum \text{ of } Y \text{ series}$ 

 $\phi xy = Sum \text{ of } X \text{ and } Y \text{ series}$ 

 $\phi x^2$  = Sum of Square of Series X

 $\phi y^2 = \text{Sum of Square of series Y}$ 

X & y = Financial variable of banks

The coefficient of correlation always varies between the two limits of +1 and -1, when there is perfect positive correlation, its value is +1 and when there is negative correlation its value is -1 whichindicates absence of correlation. Lastly, the value of the coefficient of correlation is always between +1 and -1. It cannot exceed unity.

#### 3.5.2.2 Probable Error

The probable error of the coefficient of correlation is very useful for interpreting value of coefficient of correlation. It helps to determine the reliability value of the coefficient of correlation.

$$P.E = 0.6745 \frac{1 \, Zr^2}{\sqrt{n}}$$

Where,

r = Coefficient of correlation

n = No of pairs of observation

P.E = Probable error

It is used in interpretation whether calculated value of r is significant or not.

If r < P.E., it is insignificant, so perhaps there is no evidence of correlation

If r > P.E., it is significant

# **CHAPTER IV**

# PRESENTATION AND ANALYSIS OF DATA

The data collected various sources have been presented and analyzed in this chapter. Since, the conclusions to be drawn and recommendations to be made in this study are based on the presentation and interpretation of data analyzed here. This chapter constitutes the main part of the study. The presentation and analysis of data measures the various dimensions of the problems of the study. The aggregate data of the respected banks for the year 2005/2006 to 2009/2010

# 4.1 Analysis the Liquidity Position

In each and every large business organizations, liquidity is known as lifeblood of the organization because the whole operation is related to this factor. Both excess amount of liquidity as well as inadequate amount hampers the entire business.

The high degree of liquidity cause unnecessary amount of interest paid, which is not a good sign. Where as the lack of liquidity shows the signal of poor credit, worthiness, less of creditors confidence or even in legal tangle resulting the closure of the company. In fact, there is no hard and fast rule of liquidity. However, NRB has maintained certain rules and regulations in this matter.

### 4.1.1 Liquid Fund to Total Deposit Ratio

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

Liquid Fund to Total Deposit ratio =  $\frac{\text{Liquid Fund}}{\text{Total Deposit}}$ 

Table no 4.1 liquid Fund to Total Deposit Ratio of NABIL and SCBNL

Banks		NABIL			SCBNL	
Year	Deposit	Liquid	Ratio	Deposit	Liquid Fund	Ratio
		Fund				
2005/2006	14586.800	1345.20	0.0922	19335.09	3370.80	0.1743
2006/2007	19348.400	2364.20	0.1221	23061.03	3253.51	0.1410
2007/2008	23342.400	2963.10	0.1269	24647.02	3382.17	0.1372
2008/2009	31915	4623.50	0.1448	29743.99	4247.78	0.1428
2009/2010	37348.300	5925.400	0.1586	35871.72	5192.71	0.1447
2010/2011	49608.37	8258.39	0.1665	37999.24	6482.37	0.171
Total	176149.27	23479.79	0.8111	170658.09	26329.34	0.9272
Mean	29358.21	3913.30	0.1352	28443.02	4388.22	0.1545

Source: Financial Reports of the Banks.

## Liquid Fund to Total Deposit Ratio of NABIL and SCBNL

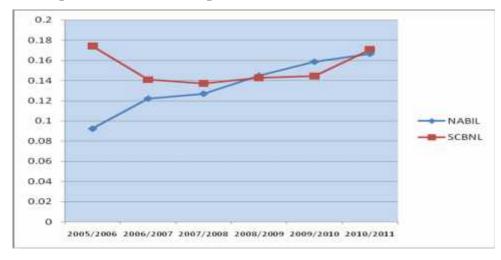


Figure No 4.1.

The above table 4.1 and figure 4.1 show that the liquidity position of Nabil is in increasing ratio from year 2005/2006 to 2010/2011. The liquidity position of SCBNL is in decreasing ratio from year 2005/2006 to 2007/2008 but after that, it has a increasing trend . From this, we can say that Nabil has succeeded to maintain its liquidity position while performing banking operation. The fluctuation in liquidity

position of SCBNL can also be clear by the different schemes and policies of SCBNL in our country.

## 4.1.2 Cash and Bank Balance to interest Sensitive Deposit Ratio

Interest sensitive deposit means saving deposit. This deposit is deposited by public in the bank with an explicit objective of increasing their wealth. Their interest plays a vital role in interest sensitive deposit. Unlike this, other deposits like fixed and current deposits are not interest sensitive. Fixed deposit has a fixed term of maturity and fluctuation in interest rates does not allow its investment in short run. Therefore it is not sensitive towards interest rates.

Cash and Bank balance represents total of local currency, foreign currency, cash in hand and carious bank balance in local as well as foreign banks. The ratio of cash and bank balance to interest sensitive deposits measures the ability of banks immediate funds to meet/cover their deposits, margin and call due to change in interest rates. Higher the ratio, higher the liquidity position and ability to cover the deposits and voce-versa.

Cash and bank balance to interest Sensitive Deposit ratio =  $\frac{\text{Cash and Bank Balance}}{\text{Saving Deposit}}$ 

Table No 4.2

Cash and Bank Balance to Interest Sensitive Deposit Ratio of NABIL and SCBNL (Rs. In million)

Banks		NABIL			SCBNL	
Year	Saving	Cash and	Ratio	Saving	Cash and	Ratio
	Deposit	bank Balance		Deposit	bank Balance	
2005/2006	7026.4	559.5	0.0796	13030.09	1111.12	0.085
2006/2007	8770.80	630.23	0.0718	14597.67	1276.24	0.0874
2007/2008	10187.35	1399.82	0.1374	15244.38	2021.02	0.1325
2008/2009	12160.00	2671.14	0.2196	17856.13	2050.24	0.1148
2009/2010	14620.40	3372.51	0.2306	19187.63	3137.16	0.1634
2010/2011	16540.32	3952.76	0.2390	22238.54	3742.85	0.1683
Total	69305.27	12585.96	0.978	102154.44	13338.69	0.7514
Mean	11550.88	2097.66	0.163	170025.74	2223.10	0.1252

Source: Financial Reports of the Banks.

# Cash and Bank Balance to interest Sensitive Deposit Ratio of NABIL and SCBNL

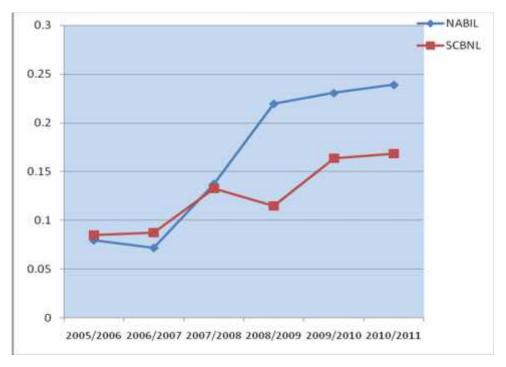


Figure No 4.2

The above table 4.2 and figure 4.2 show that the mean ratio of cash and bank balance ratio to interest sensitive ratio of Nabil is high than SCBNL. In case of Nabil, while observing the data of six years from 2005/2006 to 2010/2011, it is fluctuating i.e. high in 2009/2010 and 2010/2011 this means the degree of increase in deposit is higher than the degree of increase in liquid fund with respect to previous year. Whereas it is minimum in the year, 2005/2006 and 2006/2007 because there has been a decrease in liquid fund but saving deposits have increased.

In case of SCBNL it is more fluctuating than Nabil. It is less in 2006/2007 than in 2007/2008 but is increasing till 2010/2011 reaches its maximum points which means that there has been a increase in liquid fund deposits have increased.

# **4.2** Analyze the effectiveness of lending policy

## 4.2.1 Analyzing the Lending Strength of Relative Term

The lending strength of these banks is measured in relative measures. In this section, the relationship between various assets and liabilities of the balance sheet has been established to show the relative strength of lending of each bank respectively. An attempt is made to determine the lending strength in absolute figure of each bank.

Since, all of the two banks are comparable in volume of deposits, loans on advance and other variables too.

## 4.2.1.1 Total Asset to Total Liability Ratio

The ratio of total asset to total liability measures the volume of total liability in total assets of the firm. The banks create credit by the way of lending activities and multiply their assets many times, than their liability permits. Thus, this ratio measures the bank's ability to multiply its liability into assets.

It is always recommended to have higher ratio of total assets to total liabilities ratio since it signifies overall increases of credit and overall development of banks performance. The higher the ratio higher the productively and higher the assets conversion and vice-versa.

Total Asset to Total Liability ratio = 
$$\frac{\text{Total assets}}{\text{Total Liabilitie}}$$

Table No 4.3

Total Asset to Total Liability Ratio of Nabil and SCBNL

(Rs. In million)

Banks		NABIL			SCBNL	
Year	Total	Total Assets	Ratio	Total	Total	Ratio
	Liability			Liability	Assets	
2005/2006	16168.00	17064.08	1.05	21111.00	21893.58	1.03
2006/2007	20200.40	22329.97	1.10	23852.90	25776.33	1.10
2007/2008	26297.50	27253.39	1.03	27678.90	28596.68	1.03
2008/2009	36324.60	37132.75	1.02	31548.80	33335.78	1.05
2009/2010	42217.40	43867.39	1.03	39299.10	40587.46	1.03
2010/2011	47514.82	49263.26	1.04	42643.85	43598.27	1.02
Total	188722.72	190444.16	6.27	186134.55	193788.1	6.24
Mean	31453.79	31740.69	1.045	31022.42	32298.02	1.04

Source: Financial Reports of the Banks.



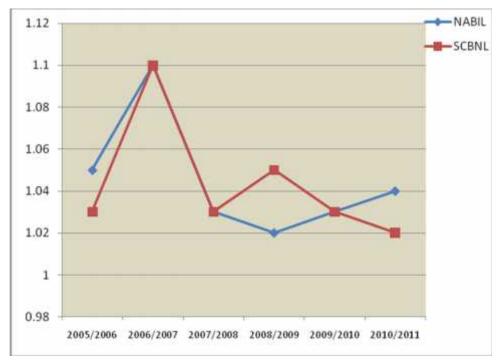


Figure No 4.3

The above table 4.3 and figure 4.3 shows the total assets to total liability ratio of two banks. The highest is of NABIL and SCBNL is 1.10 though the highest ratio of total assets to total liability is considered best, the initial three years of SCBNL is almost same as of Nabil but after that the ratio of SCBNL fluctuating at lower rate and after that it decreases. Form these, we can say that the ratio of Nabil is higher than SCBNL so Nabil has higher productivity and higher assets conversion than SCBNL.

#### 4.2.1.2 -Loans and Advance to Total Assets Ratio

Loan and advances of any commercial banks represent the major portion in the volume of total assets. The ratio of loan and advances to total assets ratio measures the volume of loans and advances in the structure of total assets.

The high degree of this ratio indicates the good performance of banks in mobilizing its funds by the way of lending function. However, in its reverse side, the high degree of this ratio is representative of low liquidity ratio.

Granting the loan and advances always carries a certain degree of risk. Thus, this asset of banking business is regarded as risky asset. The low ratio shows low productivity and high degree of safety in liquidity and vice-versa. The interaction of risk and return determine this ratio.

Loan and Advance to Total Assets ratio =  $\frac{\text{Loan and Advance}}{\text{Total Assets}}$ 

Table No 4.4

Loan and Advances to Total Assets Ratio of NABIL and SCBNL

(Rs. In million)

Banks		NABIL			SCBNL	
Year	Total	Loan and	Ratio	Total	Loan and	Ratio
	Assets	Advance		Assets	Advance	
2005/2006	17064.08	10586.17	0.620	21893.58	8143.20	0.372
2006/2007	22329.97	12922.54	0.578	25776.33	8935.42	0.347
2007/2008	27253.39	15545.77	0.5704	28596.68	10502.63	0.367
2008/2009	37132.75	21365.05	0.575	33335.78	13718.59	0.412
2009/2010	43867.39	27589.93	0.6289	40587.46	13679.75	0.337
2010/2011	49236.26	31243.54	0.6346	43598.27	15121.24	0.3468
Total	190444.16	119253.01	3.6069	193788.1	70100.83	2.1868
Mean	31740.69	19875.50	0.6012	32298.02	11683.47	0.3645

Source: Financial Reports of the Banks

# Loan and Advances to Total Assets Ratio of NABIL and SCBNL

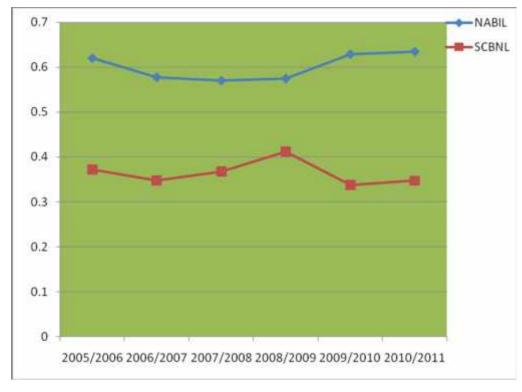


Figure No 4.4

From the above table 4.4 and figure 4.4, we can see that the performance of Nabil comes at first with its mean ratio 0.6012 The ratio of SCBNL seems to be compared to Nabil with its mean ratio 0.364, whereas the ratio of Nabil at different period is up and down. From these we can say that Nabil has good performance in mobilizing its funds by the way of lending function than that of SCBNL.

#### 4.2.1.3- Investment to Loan and Advance Ratio

This ratio measure the contribution made by investment in total amount of loans and advances. The proportion between investment and loan and advances measures the management attitudes towards risky assets and safety assets.

Here, the total mobilized fund i.e. investment and loan and advances in whole does not provide the quality of assets that a bank has created. Thus, it measures the risk of banking business too. The high ratio indicates the mobilization of funds in safe area and vice-versa. However, safety does not provide with satisfactory return. So a compromising ratio between risk and profit should be maintained.

 $Investment \ to \ loan \ and \ Advances \ Ratio = \frac{Investment}{Loan \ and \ Advances}$ 

Table No. 4.5

Investment to loan and Advances Ratio of NABIL and SCBNL

(Rs. In million)

Banks		NABIL			SCBNL	
Year	Loan and	Investment	Ratio	Loan and	Investment	Ratio
	Advance			Advance		
2005/2006	10586.17	4275.52	0.40	8143.20	9702.55	1.19
2006/2007	12922.54	6178.53	0.48	8935.42	12847.53	1.43
2007/2008	15545.77	8945.31	0.57	10502.63	13553.23	1.29
2008/2009	21365.05	9939.77	0.46	13718.59	13902.81	1.01
2009/2010	27589.93	10826.37	0.39	13679.75	20236.12	1.47
2010/2011	31243.54	13003.21	0.4162	15121.24	22254.16	1.471
Total	119253.01	53168.71	2.7162	70100.83	92496.4	7.86
Mean	19875.50	8861.45	0.4527	11683.47	15416.07	1.31

Source: Financial Reports of the Banks

#### Investment to loan and Advances Ratio of NABIL and SCBNL

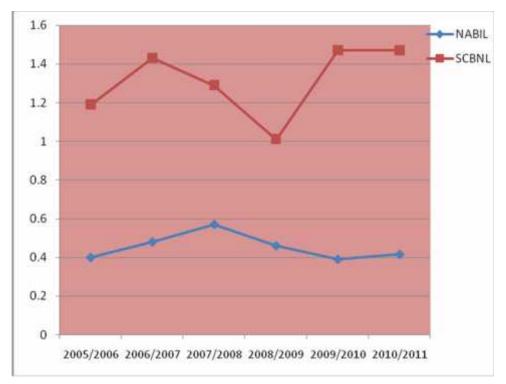


Figure No 4.5

The above table 4.5 and figure 4.5 show the ratio of investment to loan and advances. Since, this ratio measures the contribution made by investment, SCBNL's ratio is higher than Nabil's. The ratio of Nabil is seems to be constant than SCBNL. The overall trend of this ratio is increasing which sounds good for banking business. The overall mean of this ratio is 1.31 and 0.45 for SCBNL and Nabil respectively

### 4.2.1.4. Loans and Advances to Total Deposit Ratio

The ratio shows the percentage of loans and advances that have been granted out of total deposits the bank have. The higher ratio is preferable for the profitability of the bank. Higher ratio indicates higher use of fund and generating more income.

Loan and advances and investments are the major area of fund mobilization of commercial banks. Loan and advances are the first type of application of funds, which has more risk as compared to investment and gives more return, the ratio indicates the firm's fund mobilizations power in gross. The main sources of bank's lending and

investment is its deposits. This ratio measures how well the deposits have been mobilized.

Loan and Advances to Total Deposit Ratio =  $\frac{Loan \quad and \quad Advance}{Total \quad Deposit}$ 

Table No 4.6

Loan and Advances to Total Deposit Ratio of NABIL and SCBNL

(Rs. In million)

Banks		NABIL			SCBNL	
Year	Total	Loan and	Ratio	Total	Loan and	Ratio
	Deposit	Advance		Deposit	Advance	
2005/2006	14586.800	10586.17	0.72	19335.09	8143.20	0.42
2006/2007	19348.400	12922.54	0.67	23061.03	8935.42	0.39
2007/2008	23342.400	15545.77	0.66	24647.02	10502.63	0.43
2008/2009	31915.00	21365.05	0.67	29743.99	13718.59	0.46
2009/2010	37348.300	27589.93	0.74	35871.72	13679.75	0.38
2010/2011	49608.37	31243.54	0.63	37999.24	15121.24	0.40
	176149.27	119253.01	4.09	170658.09	70100.83	2.48
	29358.21	19875.50	0.68	28443.02	11683.47	0.41

Source: Financial Reports of the Banks

# Loan and Advances to Total Deposit Ratio of NABIL and SCBNL

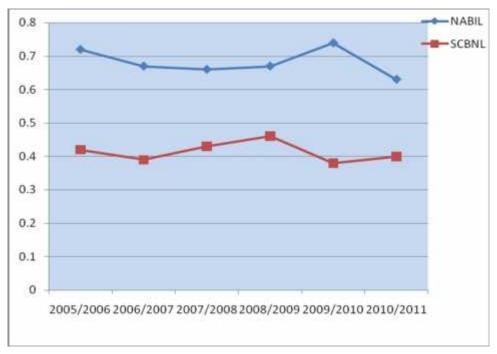


Figure No. 4.6

This ratio is employed to measure the bank's ability to utilize their deposits in terms of granting loans and advances. Higher the ratio higher the utilizing the deposit and higher the change to make more profit. The table 4.6 and figure 4.6 show that Nabil has higher ratio (0.68) than SCBNL, (0.41) which mean that it has higher deposit utilization than that of SCBNL. The more decreasing trends of loan and advances the possibility of less income of banks.

### 4.2.1.5-Investment to Total Deposit Ratio

This ratio shows the aggregate percentage of total deposits that have been invested. Investment includes investment on government securities and others. Some portion of the total deposit fund is used for granting loans and advances whereas some portion of deposit fund is used for investment. However, it is seen that the investment is much lesser that that of loans and advances. Most of the investment is done on government securities, which yield return.

Investment to Total Deposit = 
$$\frac{Investment}{Total Deposit}$$

Table No 4.7

Investment to Total Deposit Ratio of NABIL and SCBNL

(Rs. In million)

Banks	1	NABIL			SCBNL	
Year	Total Deposit	Investment	Ratio	Total Deposit	Investment	Ratio
2005/2006	14586.800	4275.52	0.29	19335.09	9702.55	0.50
2006/2007	19348.400	6178.53	0.32	23061.03	12847.53	0.55
2007/2008	23342.400	8945.31	0.38	24647.02	13553.23	0.54
2008/2009	31915.00	9939.77	0.31	29743.99	13902.81	0.47
2009/2010	37348.300	10826.37	0.29	35871.72	20236.12	0.56
2010/2011	49608.37	13003.21	0.26	37999.24	22254.16	0.59
Total	176149.27	53168.71	1.85	170658.09	92496.4	3.21
Mean	29358.21	8861.45	0.31	28443.02	15416.07	0.53

Source: Financial Reports of the Banks

# Investment to Total Deposit Ratio of NABIL and SCBNL

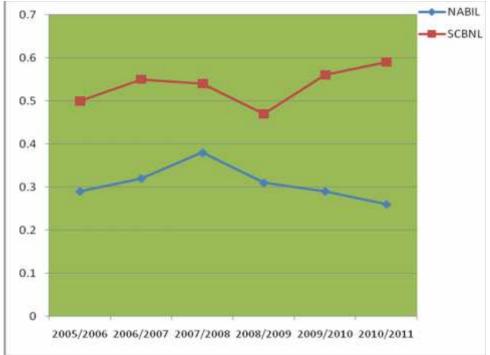


Figure No 4.7

This ratio shows the percentage of total deposits that have been invested. Higher the ratio, higher the fund has been invested and vice-versa. The bank generates income out of investment. The above table 4.7 and figure 4.7 show that ratio of SCBNL is higher than that of Nabil, which means that SCBNL has invested more total deposits than Nabil. This can be made clear by the mean ratio, where mean ratio of SCBNL is higher than Nabil. From this, we can say that SCBNL has become able to invest more of its total deposits and has generated more income because income can be generated out of investment.

#### 4.2.1.6-Loan and Advances to Shareholder's Equity Ratio

Shareholders equity consists of share capital, share premium, reserve fund and retained earning. The ratio between loan and advances to shareholders equity has been able to generate assets to multiply its wealth. The shareholders equity refers to the net shareholders intake in the business. Thus this ratio measures the size of business and their success in converting liabilities into assets.

Loan and Advances to Equity Ratio = 
$$\frac{\text{Loan and Advances}}{\text{Net Worth}}$$

Table No 4.8

Loan and Advances to Shareholders Equity Ratio of NABIL and SCBNL

Banks		NABIL			SCBNL	
Year	Net worth	Loan and	Ratio	Net	Loan and	Ratio
		Advance		worth	Advance	
2005/2006	1657.63	10586.17	6.39	1582.41	8143.20	5.15
2006/2007	1874.99	12922.54	6.89	1754.13	8935.42	5.09
2007/2008	2057.04	15545.77	7.56	2116.35	10502.63	4.96
2008/2009	2437.19	21365.05	8.77	2492.54	13718.59	5.50
2009/2010	3130.24	27589.93	8.81	3052.46	13679.75	4.48
2010/2011	3642.83	31243.54	8.58	3236.34	15121.24	4.67
Total	14799.92	119253.01	47.06	14234.23	70100.83	29.85
Mean	2466.65	19875.50	7.83	2372.37	11683.47	4.98

Source: Financial Reports of the Banks

Loan and Advances to Shareholders Equity Ratio of NABIL and SCBNL

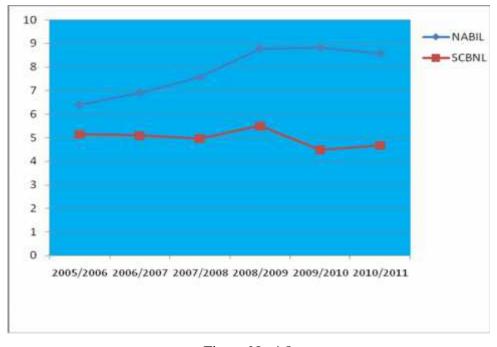


Figure No 4.8

This ratio of loan and advances to shareholders equity of these banks are not consistency in the entire period of the study. Among these two banks, the ratio of Nabil is higher as compared to the SCBNL. But it is a fluctuating trend. The

performance of Nabil is highest in the year 2009/2010, which is 8.81% similarly the performance of SCBNL is highest in year 2008/2009, which is 5. 50 % The mean ratio of Nabil and SCBNL are 7.83 and 4.98 respectively. The combined mean of all of these two banks is 6.405.

## 4.2.2Analyzing the lending Strength in Absolute Term

In this topic, the various variables in their absolute value is measured unlike ratio analysis different variables are measured individually. The volume of variables and its variability are measured. The value of individual variables enable to measure the gross contribution of respective banks in those aspects. The ratio analysis solely describes the ratio between the two variables but does not tell about the absolute value of those variables. Therefore, in this chapter, some of the important individual variables in their absolute value of means and standard deviation are examined. AT the same time, to measure the uniformity. Coefficient of variation is also measured. The absolute value of individual bank is compared to judge the contribution of respective banks and their practices.

#### 4.2.2.1 - Net Assets

Net assets of a firm refers to the total value of assets less total outsider's liability. This figure measures shareholders wealth in a firm. The higher amount, higher the volume of business and vice-versa.

Net Assets = Total assets - Total Outsider's Liabilities

Table No 4.9

Net Assets of NABIL and SCBNL

Year	Net Assets (Nabil)	Net Assets (SCBNL)
2005/2006	896.08	782.58
2006/2007	2129.57	1923.43
2007/2008	1955.89	917.76
2008/2009	808.15	1786.98
2009/2010	1649.99	1288.36
2010/2011	2244.36	1536.18
Total	9684.04	8235.29
Mean	1614	1372.55

Source: Financial Reports of the Banks

The above table 4.9 shows the net assets of two banks. The net asset of Nabil has increased up to Rs 2244.63 million in the year 2010/2011 from Rs. 896.08.million in the year 2005/06. Its performance over the period 2005/06 to 2010/011 is satisfactory, SCBNL's amount is also in up and down trend in the year 2005/06 and 2010/011 and the amount is low as compare to other years. The amount of net assets is in increasing trend in Nabil. In 2005/06 it was 896.08 million whereas in 2010/011 it is Rs.2244.36 1649.99 million. The mean assets of these banks are 1614 and 1372.55 million respectively.

## 4.2.2.2 - Total Deposit

It consists of all type demand and fixed deposit. It includes margin deposits and deposits in foreign currency. Since, the deposit is the main source of banks funds its volume in total liability plays a vital role in administering the lending and investing function of a bank.

Table No 4.10
Total Deposit of NABIL and SCBNL

(Rs. In million)

Year	Total Deposit (Nabil)	Total Deposit (SCBNL)
2005/2006	14586.800	19335.09
2006/2007	19348.400	23061.03
2007/2008	23342.400	24647.02
2008/2009	31915.00	29743.99
2009/2010	37348.300	35871.72
2010/2011	49608.37	37999.24
Total	176149.27	170658.09
Mean	29358.21	28443.02

Source: Financial Reports of the Bank's

The above table 4.10 explain that the total deposit of these two banks is in increasing trend except some year. Nabil has total deposit of Rs. 14586.80 million in the year 2005/2006 and Rs. 49608.37 in the year 2010/2011 it has a increasing trend, SCBNL's performance is in increasing trend SCBNL has deposit of Rs 19335.09 in the year 2005/2006 and Rs 37999.24 in the year 2010/2011.

#### 4.2.2.3 -Loans and Advances

Commercial bank's function is to create from its borrowed fund. The bank doing so converse its liability into active assets. Loans and advances are the assets coming from such activities. The high volume of loan and advances is the indication of good performance in credit sector. Since the survival of banking business is depended on good performance of its lending function. The high volume of well performing loan and advances in economy is a symbol of healthy business.

Table No 4.11
Loan and Advance of NABIL and SCBNL

Year	Loan and advance	Loan and advance
	(Nabil)	(SCBNL)
2005/2006	10586.17	8143.20
2006/2007	12922.54	8935.42
2007/2008	15545.77	10502.63
2008/2009	21365.05	13718.59
2009/2010	27589.93	13679.75
2010/2011	31243.54	15121.24
Total	119253.01	70100.83
Mean	19875.50	11683.47

Source: Financial Reports of the Banks

The table 4.11 presented above explain that the volume of Nabil's loan and advances in the year 2010/2011 is highest. SCBNL's performance is also in increasing trend except in the year 2009/2010. But it is poor in comparison with Nabil Bank. The trend of all two banks is rising. However, the degree of increment in the case of Nabil is highest. It has increased its volume of loans and advances from RS. 10586.17 to Rs31243.54 million in the year 2010/2011.

#### i.- Total productive Sectors Loan

The loan flow in the productive sector may be taken as back support towards economy. It helps to boost the productive sector. This will certainly minimize import, as a result balance of payment problem will be less than now the country is facing. It

not only helps in production but also help in employment, capital formation and others.

Table No 4.12

Total productive Sector Loan of NABIL and SCBNL

(Rs. In million)

Year	<b>Total productive Sector Loan</b>	<b>Total Productive Sector Loan</b>
	(Nabil)	(SCBNL)
2005/2006	10441.67	7916.90
2006/2007	12739.92	8739.69
2007/2008	15367.48	10305.61
2008/2009	21157.78	13584.88
2009/2010	27365.12	13588.34
2010/2011	32428.36	17345.16
Total	119500.33	71480.58
Mean	19916.72	11913.43

Source: Financial Reports of the Banks.

The above table 4.12 explain that the total productive sector loan of Nabil has increased to Rs.32428.36 million from Rs 10441.67 million. In the year 2005/2006 SCBNL's performance in deposit collection is moderate. The deposit trend of the two banks is increasing in nature. Nabil has productive sector loan of Rs. 10441.67 million in the year 2005/2006 and Rs.32428.36 million in the year 2010/2011 This causes in increase of 210.6% SCBNL has Rs.7916.90 million and Rs.17345.16 million in the year 2005/2006 and 2010/2011 respectively. This shows in increase of 119.1%.

#### ii- Industrial Sector Loan

Industrial sector loans falls within the category of productive sector. Thus this resembles a portion of productive sector loan.

Table No 4.13

Total Industrial sector Loan of NABIL and SCBNL

Year	Total Industrial Sectors Loan	Total Industrial Sector
	(Nabil)	Loan (SCBNL)
2005/2006	8586.17	6952.13
2006/2007	11033.30	7715.46
2007/2008	13833.47	9302.73
2008/2009	19139.87	11898.69
2009/2010	25714.93	12501.51
2010/2011	30422.62	15203.65
Total	108730.36	63574.17
Mean	18121.73	10595.70

Sources: Financial Reports of the Banks.

The above table 4.13 shows that the contribution of Nabil is the highest for all the years and it has a steady flow of credit in its his sector. The contribution made by SCBNL is lowest throughout the years. The contribution made by Nabil in the year 2005/06 is Rs. 8586.17 million and Rs.30422.62 million in the year 2010/011. This is an increase of 254.32% Again SCBNL has amount of Rs.6952.13 million in the year 2005/06 and Rs. 15203.65 in the year 2010/011 respectively. This shows an increase of Rs186.7%.

## iii- Priority Sector Loans

A priority sector loan is also a portion of productive sector loan. Central bank directs other commercial banks to invest certain amount directed by it. If this directive is not followed by commercial banks, then the bank will be penalized.

Table No. 4.14
Priority Sector Loan of NABIL and SCBNL

Year	Priority Sectors Loan (Nabil)	Priority Sector Loan
		(SCBNL)
2005/2006	714.30	304.12
2006/2007	723.07	392.63
2007/2008	979.56	425.30
2008/2009	1098	434.66
2009/2010	1318.04	430.99
2010/2011	1612.61	622.84
Total	6445.58	2510.54
Mean	1074.26	418.42

Source: Financial Reports of the Banks

The above table 4.14 shows that the contribution of priority sector loan of both the banks in increasing. Nabil has contributed Rs. 714.30 million and Rs. 1612.61 million in the year 2005/06 and 2010/011 respectively. This shows an increment of 125.8% SCBNL has amount of Rs. 304.12 and 622.84 million in the year 2005/06and 010/011 which shows increases of 104.8%.

#### **4.2.2.4- Investment**

The nature of investment is more liquid than loan and advances. Investment thus provides a cushion against liquidity risk.

Investment= Investment in Government Securities +other investment

Table No 4.15

Investment of NABIL and SCBNL

year	Investment (Nabil)	Investment (SCBNL)
2005/2006	4275.52	9702.55
2006/2007	6178.53	12847.53
2007/2008	8945.31	13553.23
2008/2009	9939.77	13902.81
2009/2010	10826.37	20236.12
2010/2011	13003.21	22254.16
Total	53168.71	92496.4
Mean	8861.45	15416.07

Source: Financial Reports of the Banks.

The above table 4.15 shows that the trend of investment does not have fixed direction but in last years, it has increased rapidly in case of Nabil. The performance of Nabil and SCBNL is of mized character. Nabil has invested Rs. 4275.52 in 2005/06 and Rs. 13003.21 million in 2010/011, which is an increase of 204.13%. Investment of SCBNL in 2005/06 amounts Rs. 9202.55million to Rs. 22254.16 million in the year 2010/011. This is increment of 141.8%

## 4.2.2.5- Total Interest Income

The volume of interest income measures the bank's ability to generate income from lending and investing activities. The high volume is indication of favorable contribution of lending and investing activities in income generation.

Table No. 4.16

Total Interest Income of NABIL and SCBNL

Year	Total Interest	Total Interest
	Income (Nabil)	Income (SCBNL)
2005/2006	1068.74	1058.67
2006/2007	1309.99	1189.60
2007/2008	1587.77	1411.98
2008/2009	1978.48	1592.19
2009/2010	2798.48	1887.22
2010/2011	2954.36	2334.62
Total	11698.03	9473.28
Mean	1949.67	1578.88

Source: Financial Reports of the Banks

The above table 4.16 shows that the total interest income of all of these banks does not have a fixed direction. The total interest income of these banks is almost same. Total interest income of Nabil in 2005/06 is Rs. 1068.74 million and in 2010/011 is Rs.2954.36 million, which is an increase of 176.4% Similarly; SCBNL has an increment of 120.5%.

## 4.2.2.6- Total Expenses

The total expenses include all types of expenses those are charged against profit and loss account .

Table No 4.17
Total Expenses of NABIL and SCBNL

	Total Expenses (Nabil)	Total Expenses (SCBNL)
2005/2006	2197.80	1576.27
2006/2007	2275	2210.86
2007/2008	2881	2284.50
2008/2009	3398	2357
2009/2010	3669	2763.26
2010/2011	3822.46	3136.4
Total	18243.26	14328.29
Mean	3040.54	2388.05

Source: Financial Reports of the Banks

The above table 4.17 shows that total expenses of Nabil is increasing trend for 05/06 to 010/011. Its total expenses are highest in the year 2010/011. There is no consistency in the total expenses of SCBNL. It is increasing trend, SCBNL is always successful to run the business in lowest possible cost. SCBNL's total expenses are ranged from Rs.1576.27 million in 2005/06 to Rs 3136.4 million in the year 2010/011. This constitutes an increasing of 99%. Total expenses of Nabil in the year 2005/06 is Rs.2197.80 million and Rs 3822.46 million in the year 2010/011 which shows the increase of 73.9%.

#### 4.2.2.7- Loan Loss Provision

Provision of doubtful debts in balance sheet shows the figure that is the summation of provision made against pass and substandard loans as per NRB directives.

Table No 4.18

Total Loan Loss Provision of NABIL and SCBNL

Year	Loan Loss Provision	Loan Loss Provision
	(Nabil)	(SCBNL)
2005/2006	64.20	69.88
2006/2007	55.58	47.72
2007/2008	45.72	56.63
2008/2009	23.58	41.04
2009/2010	24.20	22.76
2010/2011	28.04	20.49
Total	243.32	258.52
Mean	40.55	43.09

Source: Financial Reports of the Banks

The above table 4.18 shows that the loan loss provision of Nabil has decreasing character. The trend of Nabil has decreased for the first four years and then slightly increased for the last two year SCBNL have decreasing trend except in 2007/08. However, the trend of SCBNL is decreased through out the study period. This is a good sign for the better future of bank.

# **4.2.2.8-Net profit**

The volume of net profit measures the success of a firm in every aspect of its operation and strategy.

Table No 4.19

Net profit and NABIL and SCBNL

Year	Net profit (Nabil)	Net profit
		(SCBNL)
2005/2006	520	536
2006/2007	635	659
2007/2008	674	692
2008/2009	746	819
2009/2010	1031	1025
2010/2011	1422.36	1589.42
Total	5028.36	5320.42
Mean	838.06	886.74

Source: Financial Reports of the Banks:

The above table shows that the profits of both the banks are increasing steadily. The net profit of NABIL in 2005/2006 was Rs.520 million. Currently its profits are 1422.36 million which shows an increase of 173.5%. Similar is the case of SCBNL, its profit rise to 1589.42 million in current period from Rs. 536 million in 2005/06. The SCBL is able to maximize its profits in comparison to NABIL

# 4.3-Analyzing the Portfolio Behavior of Loan and Advances

So, far we have analyzed the relation between loan and advances with various assets and liabilities of respective banks. In this chapter, we examine the portfolio management of loan and advances. Bank advances loan and advances to various sectors of economy and to various types of borrowers. Similarly, it invests fund in various types of securities and shares. In this chapter, the ratio of loans and advances granted to various sector of economy and for various purposes to total volume of loans and advances are measured.

#### 4.3.1 Private \Sector Loan to Total Loans and Advances Ratio

This ratio measures the contribution of banks lending in private sector. After restoration of democracy in 1990, great revolution can be seen in private sector to different areas. Competition, liberal policy of government, worldwide trend, globalization and other factors acts as a catalyst in private sector loan.

The ratio of private sector loan and advances measures the volume of private sector activity in total economy with compare to government sector activity. This closely measures the loan and advances received by the government form commercial banks with loan and advances received by private sector while calculating this ratio from both private sector loan and advances excludes the amount of bills purchased and discounted.

Private Sectors Loan to Total Loan and Advance Ratio =  $\frac{\text{Pr}\,ivate \quad Sector \quad Loan}{Loan \quad and \quad Advance}$ 

Table No 4.20
Private Sectors Loan to Total Loan and Advance Ratio of NABIL and SCBNL

Banks		NABIL			SCBNL	
	Loan and	Private sector	Ratio	Loan and	Private Sector	Ratio
Year	Advance	Loan		Advance	Loan	
2005/2006	10586.17	10441.67	0.98	8143.20	7916.90	0.97
2006/2007	12922.54	12739.92	0.98	8935.42	8739.69	0.978
2007/2008	15545.77	15367.48	0.99	10502.63	10305.61	0.98
2008/2009	21365.05	21157.78	0.99	13718.59	13584.88	0.99
2009/2010	27589.93	27365.12	0.99	13679.75	13588.34	0.99
2010/2011	31243.54	30535.06	0.98	15121.24	14923.21	0.99
Total	119255.01	117607.03	5.91	70100.83	69058.63	5.89
Mean	19875.50	19601.17	0.987	11683.47	11509.77	0.98

Source: Financial Reports of the Banks

The above table 4.20 explains that the proportion of loan and advances granted to private sector is significant in case of two banks. The mean ratio ranges from 0.99 to 0.98. The ratio explains about the fluctuating trend in sample banks. However it has a decreasing trend. It means that the dependency of lending in government is increasing in the commercial banks. This may have caused due to lack of lending and investing

The overall combined mean shows that 4% of the total lending of these commercial banks has been contributed to the government sector. The mean ratios of Nabil and SCBNL are 0.987 and 0.98 respectively. The mean ratio of Nabil is slightly highest among the two banks. Though the performances of sample banks are good the

continuous effort to increase the private sector participant in development activities and the trend toward the globalization of economy may cause this ratio to increase in future.

#### 4.3.2. Productive Sector Loans to Total Loan and Advance Ratio

NRB has directed all the commercial banks to advance 40% of their total credit to productive sector. The loan provided to priority sector, industrial sector and loans granted to other productive sector is categorized as productive sector loans. The percentage stipulated by the directive is not an optimum ratio but this is only a compulsion to the commercial banks to set a minimum level of their credit. The high ratio indicates the high volume of credit flow in productive sector. The flow of credit in productive sector always brings favorable impact on total economy. The higher the ratio of productive sector loans to total loan and advances, better the national development and better the bank performance.

Table No 4.21

Priority Sector Loans to Total Loan and Advances ratio of NABIL and SCBNL

(Rs. In million)

Banks	nks NABIL SCBNL					
	Loan and	priority sector	Ratio	Loan and	Priority	Ratio
Year	Advance	Loan		Advance	Sector Loan	
2005/2006	10586.17	1114.30	0.11	8143.20	304.12	0.037
2006/2007	12922.54	723.07	0.055	8935.42	392.63	0.044
2007/2008	15545.77	1079.56	0.069	10502.63	425.30	0.040
2008/2009	21365.05	898	0.042	13718.59	334.66	0.024
2009/2010	27589.93	1018.04	0.036	13679.75	430.99	0.032
2010/2011	31243.54	1612.61	0.05	15121.24	622.84	0.04
Total	119255.01	6445.58	0.36	70100.83	2510.54	0.22
Mean	19875.50	1074.24	0.06	11.683.43	418.42	0.036

Source: Financial Reports of the Banks

The above table 4.21 explains the fluctuating trend of ratio of Nabil and SCBNL. However, the ratio of both banks has declined in 2005/06 to, 2009/010, And increase in last year. Nabil has the lowest ratio in all five years.

The above table explains a decreasing trend of priority sector loan to total loan and advances ratio of both banks. The tabulated value represents less than 6% (mean value) of loan of Nabil bank has been directed to this sector. Only SCBNL has granted more than 3.5% (mean value) of its total loan and advances to this sector. The mean ratio of Nabil is 6% being the greatest. SCBNL has mean ratio of 0.035 respectively. NRB impose penalty in case of non compliance of 12% criteria. The combined mean ratio of all these banks is 0.048 this represents the mean performance of these banks is below he minimum requirement stipulated by NRB directives. Maintaining the combined mean as the standard measures of priority sector lending the performance of Nabil and SCBNL is far below the standard. This indicates that, if there is no boundaries and penalties should NRB impose in commercial banks to lend in priority sector, this ratio has decreased to less than 1% of total loan and advances.

# 4.4 Analyzing of Landing efficiency and its contribution towards profitability 4.4.1 Total Interest Income to Total Income Ratio

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

Total interest income to total income ratio =  $\frac{\text{Total interest income}}{\text{Total income}}$ 

Where, Total income = Opening income + income from other sources.

Table No 4.22

Total Interest Income to Total Income Ratio of NABIL and SCBNL

(Rs. in million)

Banks		NABIL			SCBNL	
Year	Interest	Total	Ratio	Interest	Total Income	Ratio
	income	Income		income		
2005/2006	1068.74	1438.44	0.74	1058.67	1576.27	0.67
2006/2007	1309.99	1531.19	0.85	1189.60	1412.53	0.84
2007/2008	1587.77	2035.86	0.77	1411.98	1825.037	0.77
2008/2009	1978.48	2428.86	0.81	1592.19	2062.92	0.77
2009/2010	2798.48	3374.26	0.83	1887.22	2431.00	0.78
2010/2011	2954.36	3541.50	0.84	2334.62	2851.09	0.81
Total	11698.03	14350.11	4.84	9473.28	12158.84	4.64
Mean	1949.67	2391.69	0.81	1578.88	2026.47	0.77

Source: Financial Reports of the Banks

The above table 4.22 explains the total interest income to total income ratio of Nabil is highest between the two banks in all five years. SCBNL has the lowest ratio position. The overall men ratio of these two banks is 0.81 and 0.77 The overall trend of this ratio is grossly increasing. The highest ratio of Nabil indicates its greater degree of dependency on fund basis activities than SCBNL bank. In the contrary, SCBNL lowest ratio indicates its low dependency in fund based activities. The overall increased trend of this ratio suggests slacken economic activities and detraction of bankers in fund based activity due to its decreasing risk elements.

#### 4.4.2 Interest Expenses to total Deposit Ratio

This ratio measures the cost of total deposits in a relative term. The performance of a commercial bank is dependent upon its ability to generate cheaper fund. Cheaper the fund more the probability of generating loan and advances and vice versa. The high ratio is indication of costly fund and this adversely affects the lending activities of a bank.

Interest Expenses to Total Deposit Ratio =  $\frac{Interest paid}{Total Deposit}$ 

Table No 4.23

Interest Expenses to Total Deposit Ratio of NABIL and SCBNL

(Rs. in million)

Banks		NABIL			SCBNL	
Year	Deposit	Interest	Ratio	Deposit	Interest	Ratio
		Expenses			expenses	
2005/2006	14586.800	243.54	0.017	19335.09	254.12	0.013
2006/2007	19348.400	357.16	0.018	23061.03	303.19	0.013
2007/2008	23342.400	555.71	0.023	24647.02	413.05	0.016
2008/2009	31915.00	758.43	0.024	29743.99	471.72	0.015
2009/2010	37348.300	1153.28	0.030	35871.72	543.78	0.015
2010/2011	49608.37	1855.03	0.037	37999.24	752.08	0.020
Total	176149.27	4923.15	0.15	170658.09	2737.94	0.1
Mean	29358.21	820.525	0.025	28443.02	456.32	0.017

Source: Financial Reports of the Banks

The above table 4.23 shows that SCBNL is always successful in collecting cheaper fund by using its modern and personalized service to the customer. The ratio of Nabil is greatest in most of the years whereas the ratio of SCBNL is in low position. The ratio is in increasing trend and this may impact negatively in lending activity. The combined mean ratio of interest expenses to total deposit ratio 0.025 and 0.017 indicates that the cost of deposit in these two banks is 2% grossly. Due to the lack of lending opportunities, the supply of the fund is exceeding the demand of fund.

#### 4.4.3 Interest Suspense to Interest Income from Loan and Advance Ratio

Interest suspense refers to that portion of interest, which is due but not collected NRB circular does not allow the commercial banks to book due but unpaid interest into income. Such interest is shown in liability side of balance sheet. This ratio measures the uncollected but due interest in the volume of total interest income from loan and advances. The high degree of this ratio refers to the poor interest turnover and viceversa.

#### Interest Suspense to interest income from Loan and Advances Ratio =

# Accrued Interest on Loan Loan Advance And overdraft

Table No 4.24

Interest Suspense to Interest Income from Loan and Advances Ratio of NABIL and SCBNL

(Rs. in million)

Banks		NABIL			SCBNL	
Year	Interest	Interest	Ratio	Interest	Interest	Ratio
	Suspense	Income		Suspense	Income	
2005/2006	122.30	1438.44	0.11	133.47	1058.67	0.12
2006/2007	109.67	1531.19	0.08	160.69	1189.60	0.13
2007/2008	112.18	2035.86	0.07	182.45	1411.98	0.13
2008/2009	128.43	2428.86	0.064	115.48	1592.19	0.072
2009/2010	151.56	3374.26	0.054	117.64	1887.22	0.062
2010/2011	162.42	2954.36	0.05	144.03	2334.63	0.062
Total	786.17	11698.03	0.423	3282.69	9473.28	0.576
Mean	131.03	1949.67	0.071	547.12	1578.88	0.096

Source: Financial Reports of the Banks.

The above table 4.24 explains that the portion of interest suspense to interest income from loan and advance for SCBNL is slightly higher throughout the year. The ratio of SCBNL is significantly higher than Nabil. This ratio of Nabil is decreasing from 0.11to 0.05 in the year 2005/06 to2010/011. Similarly, the ratio of SCBNL is always fluctuating through the year.

The combined mean ratio of these two banks is 0.083. The combined mean ratio is significantly deviation from the mean ratio of the Nabil and SCBNL. This ratio indicates that the interest turnover SCBNL is best among two banks. Nabil should improve is interest turnover to increase its ratio. If this increasing trend continues in the future, the volume of non performing loans in Nabil; resulting from bad interest

may cause to the failure of the banks as seen in Nepal Bank Limited and RBB recently

#### 4.4.4 Interest from investment to Total Interest Ratio

This ratio measure the contribution made by interest investment in total interest income. The major portion of interest income is generated by the lending function and investment regarded as the cushion against liquidity risk. Hence, this ratio measures how efficiently the banks employed their trend in investment.

Interest from investment to Total Interest Ratio = 
$$\frac{\text{Interest from Investment}}{\text{Interest Income}}$$

Where, Interest from investment is the difference between total interest income and interest from loan and advances.

Table No 4.25

Interest from Investment to Total Interest Ratio of NABIL and SCBNL

(Rs. in million)

Banks		NABIL		SCBNL		
	Interest	Interest	Ratio	Interest	Interest	Ratio
Year	from	Income		from	Income	
	Investment			investment		
2005/2006	173.98	1068.74	0.16	331.63	1058.67	0.31
2006/2007	145.11	1309.99	0.11	355.29	1189.60	0.29
2007/2008	152.00	1587.77	0.095	326.54	1411.98	0.23
2008/2009	214.17	1978.48	0.10	319.81	1592.19	0.20
2009/2010	290.36	2798.48	0.10	406.98	1887.22	0.21
2010/2011	309.26	2954.36	0.105	502.14	2334.62	0.22
Total	1284.88	11698.03	0.67	2242.14	9473.28	1.46
Mean	214.15	1949.67	0.11	373.69	1578.88	0.243

Source: Financial Reports of the Banks

The above table 4.25 explains that the ratio of SCBNL is highest throughout the year as compared to Nabil Bank. The combined mean of these two banks is 0.111 and

0.24. The combined mean is deviated activities. The ratio in aggregate measures the depending on investing activities of respective banks. The increase in investment and subsequent increase in the ratio of interest from investment to total income indicate the over liquidity in banking business and lending activities.

## **4.4.5** Total Interest Income to Interest Expenses Ratio

The ratio of interest income to interest expenses ratio measures the gap between interest rates offered and interest rates changed. Sine NRB has restricted the gap between the interest rate offered and interest charged, in average, should not be more than 5%. The difference in this ratio is mainly caused by the ratio of fund mobilized and fund collected. The credit creation power of commercial banks has highly impact on this ratio.

Total Interest Income to Interest Expenses Ratio =  $\frac{\text{Total Interest income}}{\text{Total Interest Expenses}}$ 

Table No 4.26

Total Interest Income to Interest Expenses Ratio of NABIL and SCBNL

(Rs. in million)

Banks		NABIL			SCBNL	
	Interest	Interest	Ratio	Interest	Interest	Ratio
Year	Income	Expenses		income	Expenses	
2005/2006	1068.74	243.54	4.38	1058.67	254.12	4.16
2006/2007	1309.99	357.16	3.66	1189.60	303.19	3.92
2007/2008	1587.77	555.51	2.85	1411.98	413.05	3.41
2008/2009	1978.48	758.43	2.60	1592.19	471.72	3.57
2009/2010	2798.48	1153.28	2.42	1887.22	543.48	3.47
2010/2011	2954.36	1855.03	1.59	2334.62	752.08	3.10
Total	11698.03	4923.15	15.50	9473.28	2737.94	21.63
Mean	1949.67	820.53	2.58	1578.88	456.32	3.61

Source: Financial Reports of the Banks

The above table 4.26 exhibits that the ratio of SCBNL and Nabil has a high degree of gap between the interest offered and interest charged. The increase ratio as compare to the decreasing trend of loan and advances and deposits implies that the Nabil and SCBNL is charging high interest to the borrowers and offering low interest rate to the

depositors. The high cost of deposit and low volume of non interest bearing deposit in the deposit mix of Nabil has caused the gap between interest income and interest expenses to be the least. The mean ratio of Nabil and SCBNL is 2.58 and 3.61 respectively. The combined mean ratio of these banks is 3.09 This indicates a rupee of expenses in deposits has generated 3.09 rupees of interest income from these banks.

## 4.4.6 Total Income to Total Expenses Ratio

The comparison between the total income and total expenses measures the productivity of expenses in generating income. The amount of income that a unit of expenses generates is measured by the ratio of total income to total expenses. The high ratio is indicatives of higher productivity of expenses and vice-versa.

Total Income to Total Expenses Ratio =  $\frac{\text{Total Income}}{\text{Total expenses}}$ 

Table No 4.27

Total Income to Total Expenses Ratio of NABIL and SCBNL

(Rs. in million)

		NABIL			SCBNL	
Banks	Total	Total	Ratio	Total	Total	Ratio
	Income	Expenses		Income	Expenses	
Year						
2005/2006	2717.80	2197.80	1.23	2112.27	1576.27	1.34
2006/2007	2949	2275	1.29	2869.86	2210.86	1.29
2007/2008	3555	2881	1.23	2976.50	2284.50	1.30
2008/2009	4144	3398	1.21	3176.00	2357	1.34
2009/2010	4700	3669	1.28	3788.26	2763.26	1.37
2010/2011	3541.50	3822.46	0.93	2851.09	3136.4	0.91
Total	14350.11	1823.26	7.17	12158.84	14328.29	7.55
Mean	2391.69	3040.54	1.195	2026.47	2388.05	1.26

Source: Financial Reports of the Banks.

The above table 4.27 explains that the ratio of SCBNL is highest among the two banks. The overall trend of total income to total expenses ratio of SCBNL is decreasing except in 2006/2007 there after increasing trend But Nabil bank follows the increasing trend up to 2007/2008 and fluctuating trend thereafter. The combined mean ratio is 1.22 and the mean ratio of Nabil and SCBNL are 1.195 and 1.26 respectively.

However the performance of two banks can be considered better.

#### 4.4.7 Total Income to Total Assets Ratio

This ratio measures have efficiently the assets of business is utilized to generate income. It also measures the quality of assets income generation.

Total Income to Total Assets Ratio=  $\frac{\text{Total Income}}{\text{Total Assets}}$ 

Table No 4.28

Total Income to Total Assets Ratio of NABIL and SCBNL

(Rs. in million)

Banks		NABIL			SCBNL	
	Total	Total Assets	Ratio	Total	Total	Ratio
Year	Income			Income	Assets	
2005/2006	2717.80	17064.08	0.15	2112.27	21893.58	0.096
2006/2007	2949	22329.97	0.13	2869.86	25776.33	0.11
2007/2008	3555	27253.39	0.13	2976.50	28596.68	0.10
2008/2009	4144	37132.75	0.11	3176.00	33335.78	0.095
2009/2010	4700	43867.39	0.10	3788.26	40587.46	0.093
2010/2011	3541.50	49236.26	0.072	2851.09	49598.27	0.065
Total	14350.11	190444.16	0.692	12158.84	193788.1	0.555
Mean	2391.69	31740.69	0.12	2026.47	32298.02	0.093

Source: Financial Reports of the Banks

The above table 4.28 explains that the total income to total assets of SCBNL and Nabil is decreasing trend. Nabil follows slightly decreasing trend but constant in some years. This indicates that the efficiency of assets has been decreasing year by year. The mean ratios of Nabil and SCBNL are 0.12 and 0.093 respectively. The combined mean ratio of these two banks is 0.1065 This ratio has put the Nabil in the best position unlike other measure of profitability. But the high volume of total expenses ratio has affected this high ratio resulting in low EPS (earning per share) and net profit to the shareholders equity. However this ratio measures the earning power of assets irrespective of expenditure involved in this.

#### 4.4.8 Net Profit to Shareholders' Equity Ratio

This ratio measures the amount of profit that a rupee of shareholders find has received. The high ratio is indicative of high return to shareholders and vice-versa.

$$\mbox{Net profit to Shareholder Equity Ratio} = \frac{\mbox{Net profit}}{\mbox{Share Holders Equity}}$$

Where,

Shareholders Equity = Share capital and Share premium +Retained Earning +Reserves.

Table No 4.29

Net profit to shareholders Equity Ratio of NABIL and SCBNL

(Rs. in million)

Banks		NABIL			SCBNL	
	Share	Net profit	Ratio	Share	Net profit	Ratio
Year	holder			holder		
	equity			equity		
2005/2006	1657.63	520	0.31	1582.41	536	0.33
2006/2007	1874.99	635	0.33	1754.13	659	0.37
2007/2008	2057.04	674	0.32	2116.35	692	0.33
2008/2009	2437.19	746	0.31	2492.54	819	0.32
2009/2010	3130.24	1031	0.33	3052.46	1025	0.33
2010/2011	3740.19	1422.36	0.38	3614.02	1589.42	0.43
Total	14897.28	5028.36	1.98	14611.91	5320.42	2.12
Mean	2482.88	838.06	0.33	2435.32	886.74	0.35

Source: Financial Reports of the Banks

The above table 4.29 explains that the net profit to shareholders equity ratio of SCBNL is highest among the two banks, which is in increasing trend in the year 2005/06 to 09/010. The mean ratio of Nabil and SCBNL is 0.33 and 0.35 respectively. The combined mean ratio of these two banks is 0.34 which shows that 34% of net profit is made by shareholders fund. Measuring this as a standard ratio of net profit to shareholders equity. SCBNL comes at the first position then Nabil comes to the second position.

#### **4.4.9 Earning Per Share (EPS)**

Earning per share is the net profit divided by the total number of shares outstanding. The amount of EPS measures the efficiency of a firm in relative terms. How for an organization is able to use its resource to generate profit is due to EPS determines that market of a share. However high amount of EPS increase the competition in the market by entry of new organization.

Earning Per Share (EPS) = 
$$\frac{\text{Net Profit}}{\text{No. of Shares Outstanding}}$$

Table No 4.30
Earning Per Share (EPS) of NABIL and SCBNL

	EPS (Nabil)	EPS(SCBNL)
2005/2006	105.49	143.14
2006/2007	129.21	175.84
2007/2008	137.08	167.37
2008/2009	108.31	131.92
2009/2010	106.76	109.99
2010/2011	108.34	112.21
Total	695.19	840.47
Mean	115.865	140.07

Source: Financial Reports

EPS of SCBNL is highest than NABIL .Both bank are increasing trend in 2005/06to 2007/08 and after then decreasing trend. and finally increase in the current period combined mean EPS of these two banks is 127.96 which is not significantly deviated from the mean EPS of these banks. The mean EPS of Nabil and SCBNL is 115.86 and 140.07 respectively. However, the overall performance in earning per share of these banks can be considered better.

## 4.5 Analyzing correlation Coefficient between different Variables

#### 4.5.1 Correlation between Total Deposit and Loans and Advances

The correlation between total deposits and loan advanced described the degree of relationship between two variables. How a unit increase in deposit impact the volume of loans and advances in measured by the correlation coefficient. Hence the deposit is the independent variable and loan and advance is the dependent variable.

Table No 4.31

Correlation between Total Deposits and Loans and Advances

Banks	Correlation Coefficient
NABIL	r= 0.95
SCBNL	r= 0.92
NABIL	P.E= 0.065
SCBNL	P.E =0.074

Source: Appendix -1

The above table 4.33 describes the relationship between total deposit and loan and advances. There is a high degree of positive correlation between total deposit and loan and advances in all banks. Since, the value correlation in Nabil is the highest among the two banks. The deposit and loan and advances of Nabil has high degree of relationship than SCBNL. The value of ® as stated above explains that a percentage increase in deposit is likely to generate the same percentage of change in the vale of loans and advance in all of these two banks. Similarly, the value of probable error of Nabil is 0.065 and SCBNL is 0.074, which is less than 6 times of coefficient of correlation 'r' = 0.95 and 0.92 that implies the relationship between the total deposit and loan and advance of both bank is significance.

#### 4.5.2 Correlation Between Loan & Advances & Shareholders Equity

Correlation between loan and advances and shareholders equity describes the degree of impact of the increase in loan and advances to shareholders equity. The loan and advances are the independent variable and the shareholders equity is a dependent variable.

Table No 4.32

Correlation between Loan & Advances & Shareholders Equity

Banks	Correlation Coefficient		
Nabil	0.75		
SCBNL	0.85		
Probable Error Nabil	0.13		
Probable Error SCBNL	0.083		

Source: Appendix -1

The above table 4.34 explains that these is a correlation between shareholders equity and loans and advances in all two banks. There is a high degree of positive correlation in SCBNL and the degree of relationship in Nabil is lowest. This correlation refers the increment in the loan and advances in Nabil increase the shareholders equity in lesser degree than that of SCBNL. The value of probable error of Nabil is 0.13and SCBNL is 0.083, which is less than 6 times of coefficient of correlation 'r' = 0.75 and 0.85that implies the relationship between the shareholders equity and loan advance of both bank is significant.

#### 4.5.3 Correlation between Investment and Loans and Advances

This correlation measures the degree of relationship between investment and loan and advances. This measure of correlation explain whether the banks have a rigid policy to maintain a consistent relationship between assets and other factors such as seasonal opportunity. Economic demand, NRB directives etc has impact on the volume of these two variables. Theoretically, increase or decrease in the volume of loan and advances directly reduces or increase the level of idle fund and this idleness of fund increase the investments.

Table No 4.33

Correlation between investment and loans and advances

Banks	Correlation Coefficient		
Nabil	0.96		
SCBNL	0.98		
Probable Error Nabil	0.28		
Pr0bable Error SCBNL	0.012		

Source: Appendix -1

The above table 4.35 reveals the moderate relation between investment and advances in SCBNL. There is less degree of positive correlation between investment and loan and advances in Nabil. The correlation between these two is highest in SCBNL and lowest in Nabil. Similarly, the value of probable error 'r' = 0.28 and SCBNL is 0.012 which is less than 6 times of coefficient of correlation 'r' =0.96 and 0.98that implies the relationship between the investment and loan and advance of both bank is significant. Though there is positive relationship between investment and loan and advances, this is not only a fact that increases in loan and advances in these banks necessarily increase the volume of investments. The volume of increase in loan and advances in these banks is caused by the increase in investment has increased because of good opportunity of lending, over liquidity in banking industry and increase in risk element in lending.

#### 4.5.4 Correlation between Total Income and Loans and Advances

The correlation between total income and loan advances measures the degree of relationship between these two variables. The values of ( r) explain whether a percentage change in loan and advances contribute to increase the same percentage of income. Loan and advances is an independent variable and total income is dependent variable.

Table No 4.34

Correlation between Total Income and Loans and Advances

Banks	Correlation Coefficient
NABIL	0.97
SCBNL	0.98
Probable Error NABIL	0.11
Probable Error SCBNL	0.016

Source: Appendix -1

The above table 4.36 explains that there is positive correlation coefficient between total income and loan and advance in two banks but the value of r) is highest in SCBNL. This explain that percentage change in loan and advances in SCBNL is most likely to the same percentage of income.

However, the value of (r) is high in two banks. The value of probable error of Nabil is 0.11 and SCBNL is 0.016, which is less than 6 times of coefficient of correlation 'r' = 0.97and 0.98 that implies the relationship between the total income and loan and advances of both bank is significant. According to the value of (r) it signifies that the degree of relationship between these variables in Nabil is least and SCBNL has the highest degree or relationship.

## 4.5.5 Correlation between Interest Suspense's and Total Interest Income

Interest suspense is an earned but uncollected interest. The correlation between interest suspense and total interest measures the relationship between these two variables. Here total income is independent variable and interest suspense is the dependent variable.

Table No 4.35

Correlation between Interest Suspense's and Total Interest Income

Banks	Correlation Coefficient
Nabil	0.91
SCBNL	-0.94
Probable Error Nabil	0.051
Probable Error SCBNL	0.035

Source: Appendix -1

The above table 4.37 explains that there is high correlation coefficient between interest suspense and interest income of Nabil whereas SCBNL has a negative correlation, which describes that, the amount of interest suspense is in decreasing ratio and interest is increasing. This is a good sign of a business. The value of probable error of Nabil is 0.051 and SCBNL is 0.035which is less than 6 times of coefficient of correlation 'r'= 0.91 and- 0.94 that implies the relationship between the interest suspense and interest income of both bank is significant. It refers that SCBNL has good loan management.

NABIL have a positive correlation but the percentage increase in interest income doesn't contribute the same percentage increase in interest suspense.

#### 4.5.6 Correlation between Provision for Loan and Loan Advances

The correlation between for loan and loan and advances measures the degree of relationship between these two variables. Loan and advances is an independent variable and provision for loan loss is a dependent variable. The value of (r) explains whether a percentage change in loan and advances contribute to increase the same percentage of provision for loan loss.

Table No 4.36

Correlation between Provision for Loan and Loan Advances

Banks	Correlation Coefficient
Nabil	-0.12
SCBNL	-0.50
Probable Error NABIL	0.29
Probable Error SCBNL	0.22

Source : Appendix –I

The above table 4.38 indicates that there is negative relationship between provision for loan loss and loan and advances of SCBNL and Nabil. But this value is least in Nabil. SCBNL has high degree of relationship. That's why we can conclude that the increase in the volume of loan advances in SCBNL and Nabil is more likely to decrease the same percentage of loan loss provision in these two banks. The value of probable error of Nabil is 0.29and SCBNL is 0.22, which is less than absolute value of 6 times of coefficient of correlation 'r' =-0.12 and -0.50 that implies the relationship between the provision for loan loss and loan and advances of both bank is significant.

#### 4.5.7 Correlation between Interest Income and Net profit

The interest income contributes the major portion of total volume of commercial banks income. The correlation measures the degree of relationship between interest income and net profit. Here, interest income is an independent variable and net profit is a dependent variable.

Table No 4.37

Correlation between Interest Income and Net profit

Banks	Correlation Coefficient
NABIL	0.21
SCBNL	0.19
Probable Error NABIL 1	0.28
Probable Error SCBNL	0.29

Source : Appendix –I

The above table 4.39 explains that there is a less positive correlation coefficient between interest income and net profit of Nabil. The value of probable error of Nabil is 0.28 and SCBNL is 0.29, which is less than 6 times of coefficient of correlation 'r' = 0.21 and 0.19 that implies the relationship between the interest income and net profit of both bank is significant. Now a days bank operates other business such as agency business, foreign exchange etc. Nabil also operates this business and generate income, which contributes the major part of total income. But the SCBNL has moderate positive correlation coefficient. Form this we can conclude that the percentage change in the volume of interest income is more likely to generate the same percentage of net profit only is SCBNL

## 4.6 Major Findings of the Study

From the analysis of the data following are the major findings of the study.

- 1. The liquidity position of Nabil is in increasing ratio from year 2005/06 to 2010/2011. The liquidity position of SCBNL is in decreasing ratio from 2005/06 to 2007/2008 but after that ,it has a increasing trend. All the two banks are capable of allocate liquid fund in total deposit. Though the mean ratio lies between 0.15 to 0.13 the liquidity position of all banks are satisfactory
- 2. The mean ratio of cash and bank balance ratio to interest sensitive ratio of Nabil is high then SCBNL. The mean ratio has ranged from 0.16 to 0.12. In case of Nabil, while observing the data of six years from 2005/2006 to 2010/2011, it is fluctuating i.e. high in 2008/2009 and 2009/2010 this means the degree of increase in deposit is higher than the degree of increase in liquid fund with respect to previous year. Whereas it is minimum in the year, 2005/2006 and 2006/2007 because there has been a decrease in liquid fund but saving deposits have increased. In case of SCBNL it is more fluctuating than Nabil. It is less in 2006/2007 than in 2007/2008 but is increasing till 2010/2011 reaches its maximum points which means that there has been a increase in liquid fund deposits also increased. Cash and bank balance to interest sensitive deposit has measured the liquidity risk arising from fluctuation of interest rate in market The high degree of cash deposits in the

comparison of liability of commercial banks requires them to maintain low liquidity ratio as compare to the other industries. The amount of deposits in the balance sheet to the high extent represents the average deposits maintain by the commercial banks.

3. Table 4.3 and figure 4.3 shows the total assets to total liability ratio of two banks. The highest is of NABIL and SCBNL is 1.10 though the highest ratio of total assets to total liability is considered best, the initial three years of SCBNL is almost same as of Nabil but after that the ratio of SCBNL fluctuating at lower rate and after that it decreases. Form these, we can say that the ratio of Nabil is higher than SCBNL so Nabil has higher productivity and higher assets conversion than SCBNL.

However the performance of Nabil bank has not deviated far from the mean ratio of SCBNL and the combined mean. The high ratio is the result of high volume of shareholders equity in the liability mix. The ratios of two bank have not significantly deviated from he combined mean.

4. The performance of Nabil comes at first with its loan and advance to total assets mean ratio 0.6012. The ratio of SCBNL seems to be compared to Nabil with its mean ratio 0.3645, whereas the ratio of Nabil at different period is up and down. From these we can say that Nabil has good performance in mobilizing its funds by the way of lending function than that of SCBNL. The ratio of loan and advances to total deposit ratio has measured the portion of total deposit that is used to increase the income of banks irrespective of the portfolios of its application. Nabil has deployed the highest portion of its total deposits in its earning activities and this ratio is significantly above than the ratio of SCBNL bank. The combined ratio is not deviated far from the mean ratio of these banks. This is the indication that the fund mobilizing activities of Nabil is significantly better than SCBNL, performance is loan and advance has not increase proportionately as compare to the deposit increments and it has further failed to utilize the excess fund in investing activities rather it has kept the high volume of fund at money at call and short notice. Resulting this bank to be the poorest in the ratio of loans and advances and investment to total deposit ratio.

- 5. The mean ratio of Nabil is 0.31 and SCBNL is 0.53 highly deviated from the combined mean. This ratio shows the percentage of total deposits that have been invested. Higher the ratio, higher the fund has been invested and viceversa. The bank generates income out of investment. The above table 4.7 and figure 4.7 show that ratio of SCBNL is higher than that of Nabil, which means that SCBNL has invested more total deposits than Nabil. This can be made clear by the mean ratio, where mean ratio of SCBNL is higher than Nabil. From this, we can say that SCBNL has become able to invest more of its total deposits and has generated more income because income can be generated out of investment.
- 6. The ratio of loan and advances to shareholders equity had gained the significant importance in measuring the capital fund and corresponding contribution in loans and advances. The combined ratio has significantly deviated from the mean ratio of SCBNL and Nabil. The mean ratio of Nabil is 7.83, which is highly deviated from the combined mean. The SCBNL has combined mean of 4.98. The low number of equity shares, retained earning and the reserve of SCBNL as compared to Nabil bank and at the same time, contributing high volume of loan and advance a resulted the ratio of Nabil to be so high as compared to SCBNL bank. SCBNL has generated the low volume of loan and advance as compared to its volume of shareholders equity. This ratio concludes that SCBNL has not been succeeding to advances high volume of credit as much as their capital funds grants to them.
- 7. Similarly, the absolute measures of lending strength have revealed that the mean volume of net assets is highest in Nabil. The volume contributed by SCBNL increase of loans and advances is highly approachable as compared to its net assets. Again, the mean volume of total deposit of Nabil is also highest. The volume of loan and advances contributed by Nabil is highest in these five years. Nabil has the best contribution made by SCBNL is case of industrial sector of economy. However, the contribution made by SCBNL in case of priority sector is the highest. The mean investment of SCBNL is also highest.

- 8. The total interest income of all of these banks does not have a fixed direction. The total interest income of these banks is almost same. Total interest income of Nabil in 2005/06 is Rs. 1068.74 million and in 2010/011 is Rs.2954.36 million, which is an increase of 174.6% Similarly; SCBNL has an increment of 120.5%. that mean total interest income of Nabil is highest. The high volume of total expenses has allotted the highest income of Nabil at the same time the loan loss provision of Nabil is also highest in the first three years. But in last two years Nabil has the highest provision for loan loss. The volume of net profit of SCBNL is the highest.
- 9. The portfolio analysis has revealed that the flow of loan and advances in private sector is highest but in priority sector it is very low. In some cases, it has not fulfilled the requirement made by government. The high operating cost high degree of risk, small scale loans has made commercial banks to flow low percentage of their credit in this sector. However the contribution of all the banks in industrial sector is appreciable but increased credit in this sector is industrial sector is the greatest and SCBNL is the least.
- 10. The measurement of efficiency in lending has revealed that the loan loss provision to loan and advance has high degree of variation among two banks. The mean ratio of Nabil is highest According to NRB directive the loan loss provision indicants the provision made against the performing loan (pass loan and sub-standard loan) only. Hence, this ratio indicates that the volume of sub standard loan in the Mix of Nabil is higher than SCBNL banks as there is some level of provision requires in case of pass loan. This indicates the volume of non performing future.
- 11. The mean ratio of interest income to total income ratio has concluded that the contribution of interest income in total income mix of NABIL is the greatest. The performance of SCBNL is moderate and comes in second position. Since there is high degree of deviation between the contributions of interest income to total income ratio, is resulted by high ratio of loan and advances to total Assets. The interest expenses to total deposit ratio indicate the cost of fund in NABIL is highest than SCBNL. NABIL being the super power in technology

and modern banking has succeeded in collecting the fund in cheapest possible price

- 12. Among the various measures of profitability ratios, the EPS reflects the relative measures of profitability. The performance of SCBNL is significantly better than Nabil bank. The ratio of net profit to shareholders equity ratio of SCBNL is also highest than Nabil bank. Low profit and highest among of shareholders' equity in Nabil have resulted low net profit to shareholder's equity ratio.
- 13. The total income to total asset measures the earning power of each rupee employed by an organization irrespective of volume expenditure incurred. Here the ratio of total income to total asset of SCBNL is the highest. The exclusion of high volume of expenditure in generating high volume of profit has caused this ratio to give the difference result as measured be other profitability ratio. But there is no significant difference in these two banks as the combine mean ratio is highly associated with the mean ratio of each bank. The ratio of total income to total expenses reflects the earning capacity of rupees of expenses. The ratio indicated that a rupee of expenses would result in value of ratio minus one in net profit. Thus higher the ratio, better the productivity of expenses is able to contribute Rs. 1.61 in net profit. As this ratio of SCBNL is least, the bank should reduce its expenditure for generating profit, otherwise the performance of this bank would adversely affect.
- 14. The correlation chapter has shown generally significant correlation between the entire variable measured. The value of probable error of Nabil is 0.065 and SCBNL is 0.074, which is less than 6 times of coefficient of correlation 'r' = 0.95 and 0.92 that implies the relationship between the total deposit and loan and advance of both bank is significance.
- This correlation refers the increment in the loan and advances in Nabil increase the shareholders equity in lesser degree than that of SCBNL. The value of probable error of Nabil is 0.13and SCBNL is 0.083, which is less than 6 times of coefficient of correlation 'r' = 0.75 and 0.85that implies the relationship between the shareholders equity and loan advance of both bank is significant.

- 16. The moderate relation between investment and advances in SCBNL. There is less degree of positive correlation between investment and loan and advances in Nabil. The correlation between these two is highest in SCBNL and lowest in Nabil. Similarly, the value of probable error 'r' = 0.28 and SCBNL is 0.012 which is less than 6 times of coefficient of correlation 'r' =0.96 and 0.98that implies the relationship between the investment and loan and advance of both bank is significant.
- 17. There is positive correlation coefficient between total income and loan and advance in two banks but the value of r) is highest in SCBNL. This explain that percentage change in loan and advances in SCBNL is most likely to the same percentage of income. However, the value of (r) is high in two banks. The value of probable error of Nabil is 0.11 and SCBNL is 0.016, which is less than 6 times of coefficient of correlation 'r' = 0.97and 0.98 that implies the relationship between the total income and loan and advances of both bank is significant. According to the value of (r) it signifies that the degree of relationship between these variables in Nabil is least and SCBNL has the highest degree or relationship.
- 18. There is high correlation coefficient between interest suspense and interest income of Nabil whereas SCBNL has a negative correlation, which describes that, the amount of interest suspense is in decreasing ratio and interest is increasing. This is a good sign of a business. The value of probable error of Nabil is 0.051 and SCBNL is 0.035which is less than 6 times of coefficient of correlation 'r'= 0.91 and- 0.94 that implies the relationship between the interest suspense and interest income of both bank is significant. It refers that SCBNL has good loan management.
- 19. Relationship between provision for loan loss and loan and advances of SCBNL and Nabil. But this value is least in Nabil. SCBNL has high degree of relationship. That's why we can conclude that the increase in the volume of loan advances in SCBNL and Nabil is more likely to decrease the same percentage of loan loss provision in these two banks. The value of probable

error of Nabil is 0.29and SCBNL is 0.22, which is less than absolute value of 6 times of coefficient of correlation 'r' =-0.12 and -0.50 that implies the relationship between the provision for loan loss and loan and advances of both bank is significant.

20. There is a high positive correlation coefficient between interest income and net profit of Nabil. The value of probable error of Nabil is 0.28 and SCBNL is 0.29, which is less than 6 times of coefficient of correlation 'r' = 0.21 and 0.19 that implies the relationship between the interest income and net profit of both bank is significant.

## **CHAPTER V**

## SUMMARY, CONCLUSION AND RECOMMENDATIONS

## **5.1 Summary**

The commercial bank plays a vital role in accelerating the temps of growth in developing countries like Nepal. It mobilizes the saving of the people and then divers into productive channels. It is through this function that it seems as an index of commercial industrial and financial stability and growth of the nation. The investment policy of the bank has to be considered in this respect otherwise. But the investment policy should be laid down and make more liberal for mobilize the idle money to the productive sector.

To accelerate the Nepalese public enterprises financial facilities need joint venture bank plays a vital role to develop the industry in the country. The study has been undertaken to analyze as well as to compare the lending operation and portfolio behavior of two joint venture commercial banks, viz Nabil and SCBNL in terms of their liquidity position lending strength, portfolio behavior and other various indicative ratios along with their mean standard deviation and coefficient of variation. The basic objective of this study is to analyze the critical status of lending performance of the banks and to give some remedial measures there to.

The financial statement of the last five years i.e. from 2005/06 to 2010/2011 had been examined for the analysis of the subject lending operation of the banks. Financial statements are sorted, tabulated and interpreted by using appropriate ratios. Since the study is based on the historical data the research design is historical and of explanatory type.

The measurement of the liquidity has revealed that liquid fund to total deposit ratio of two bans are not widely varied. All the two banks are capable of allocate liquid fund in total deposit. Though the mean ratio lies between 0.1352 to 0.1545 the liquidity position of all banks are satisfactory.

Cash and bank balance to interest sensitive deposit has measured the liquidity risk arising from fluctuation of interest rate in market. The mean ratio has ranged from 0.163 to 0.125. The combined mean of NABIL is highest among them which show that high volume to interest sensitive liability in deposit mix of SCBNL. Due to the high deviation of ratios among the banks the combined mean has also deviated far

SCBNL. The high degree of core deposits in the comparison of liability of commercial banks requires them to maintain low liquidity ratio as compare to the other industries. The amount of deposits in the balance sheet tot he high extent represents the average deposits maintain by the commercial banks.

The measurement of lending strength in relative term has revealed that the total asset to liabilities to NABIL has the highest ratio. However the performance of SCBNL bank has not deviated far from the mean ratio of SCBNL and the combined mean. The high ratio is the result of high volume of shareholders equity in the liability mix. The ratios of two bank have not significantly deviated from he combined mean.

The portfolio analysis has revealed that the flow of loan and advances in private sector is highest but in priority it is very low. In some cases, it has not fulfilled the requirement made by government. The high operating cost high degree of risk, small scale loans has made commercial banks to flow low percentage of their credit in this sector.

However the contribution of all the banks in industrial sector is appreciable but increased credit in this sector is indispensable for the national development. The contribution made by Nabil in industrial sector is the greatest and SCBNL is the least. The measurement of efficiency in lending has revealed that the loan loss provision to loan and advance has high degree of variation among two banks The mean ratio of Nabil is highest According to NRB directive the loan loss provision indicates the provision made against the performing loan (pass loan and sub-standard loan) only. Hence, this ratio indicates that the volume of sub-standard loan in the loan Mix of Nabil is higher than SCBNL bank as there is some level of provision requires in case of pass loan. This indicates the volume of non performing loan in the mix of Nabil is likely to increase incoming future.

The mean ratio of interest income to total income ratio has concluded that the contribution of interest income in total mix of NABIL is the greatest. The performance of SCBNL is moderate and comes in second position. Since there is high degree of deviation between the contributions of interest income to total income ratio, is resulted by high ratio of loan and advances to total assets. The interest expenses to Total Deposit ratio indicate the cost of fund in NABIL is highest than SCBNL.NABIL, being the super power in technology and modern banking has succeeded in collecting the fund in cheapest possible price. Like interest income to total income ratio, the interest expenses ratio is also highest in

#### SCBNL.

The correlation chapter has shown generally significant correlation between the entire variable measured. The highest correlation of Nabil in respect of total deposit and loans and advances, highest correlation of SCBNL in respect of shareholder's equity and loan and advances were found. Total income and loan and advances are the indicative of good performance of SCBNL in generating loan and advance. This also concludes that a unit of increment in deposit is the most likely in SCBNL to increase the volume of loan and advances. The correlation between the productive sector loan to total and advances has placed Nabil in better condition than SCBNL bank. As far as the lending function and its correlation with other variables are concerned, the correlation of SCBNL is likely to give the best contribution towards the national economy.

#### 5.2 Conclusion

- 1. Liquidity position of Nabil Bank is in increasing trend from year 05/06 to 010/11 but SCBNL decreasing ratio from 05/06 to 07/08 after that it has a increasing trend we can say that Nabil has succeeded to maintain it liquidity position while performing Banking operation.
- 2. Total Asset to total liability mean ratio of both Bank are same(1.4). The highest value of both bank are(1.04) Through the highest ratio of total asset to total liability is consider best the initial three years SCBNL is almost same as of Nabil but after that ratio of SCBNL fluctuating at low rate and after that it decreasing. Form these, we can say that the ratio of Nabil is higher than SCBNL so Nabil has higher productivity and higher assets conversion than SCBNL.
- 3. Loan and advance to total assets ratio of Nabil (0.60) and SCBNL(0.36). Whereas the ratio of Nabil at different period is up and down. From these we can say that Nabil has good performance in mobilizing its funds by the way of lending function than that of SCBNL.
- 4. This ratio is employed to measure the bank's ability to utilize their deposits in terms of granting loans and advances. Higher the ratio higher the utilizing the

deposit and higher the change to make more profit. The table 4.6 and figure 4.6 show that Nabil has higher ratio (0.68) than SCBNL, (0.41) which mean that it has higher deposit utilization than that of SCBNL. The more decreasing trends of loan and advances the possibility of less income of banks.

- 5. EPS of SCBNL is highest than NABIL .Both bank are increasing trend in 2005/06to 2007/08 and after then decreasing trend. The combined mean EPS of these two banks is 127.96 which is not significantly deviated from the mean EPS of these banks. The mean EPS of Nabil and SCBNL is 115.86 and 140.07 respectively. However, the overall performance in earning per share of these banks can be considered better.
- 6. The total income to total expenses ratio of SCBNL is fluctuating trend Nabil bank follows the increasing trend up to2007/2008 and fluctuating trend thereafter. The combined mean ratio is 1.22and the mean ratio of NABIL and SCBNL are 1.195and 1.26 respectively. However the performance of two banks can be considered better.
- 7. Nabil is a less positive correlation coefficient between interest income and net profit of Nabil. The value of probable error of Nabil is 0.28 and SCBNL is 0.29, which is less than 6 times of coefficient of correlation 'r' = 0.21 and 0.19 that implies the relationship between the interest income and net profit of both bank is significant. Now a days bank operates other business such as agency business, foreign exchange etc. Nabil also operates this business and generate income, which contributes the major part of total income. But the SCBNL has moderate positive correlation coefficient. Form this we can conclude that the percentage change in the volume of interest income is more likely to generate the same percentage of net profit only is SCBNL.
- 8. The overall liquidity strength of NABIL can be considered the best among the banks. Since the market is highly sensitive towards the interest rate and NABIL cannot tie up its saving deposit holder from its advanced and personalized banking system, the failure in liquidity in NABIL is most likely than SCBNL bank in coming future. Keeping the productivity of loan and

advances and its contribution in national economy, the perforce of Nabil is the best. The highest percentage of NABIL credit has granted to unproductive sector of general use and social purpose and this has occupied second position in its credit mix. But the overall decrease in economy, increasing failure of industrial sector in generating profit, increasing tendency of becoming the industrial loan to bad loan etc. has put the NABIL in safer side than SCBNL. Thus ,thus the risk element credit risk in NABIL and SCBNL has increased due to the overall failure of industrial sector in the economy. If the present economic condition improved and the industrial performance turned to success, NABIL would be the superior entity in the industry of commercial banks in future. What so ever the case, the contribution made by NABIL in the productive sector of economy is highly appreciable and best among these two commercial bank

### 5.3 Recommendations

The following recommendation has been presented below on the basis of findings.

- i. The non- performing loan to total loan and advance ratio of Nabil and SCBNL certainly attracts the high attention of any person interested with these banks. The high volume of non performing loan of these two banks may be the result of failure of industrial and agriculture sector. Nabil's increased non-performing assets may have caused due to the accumulated bad debts. That is kept being the curtain to show the high efficiency of management.
- ii. Nabil and SCBNL banks should develop its specific goal for the coming fiscal year. Such goals may be net profit on investment revenue etc. Without such goals the operation of the banks may not be effective.
- iii. AS the liquidity position of these banks is found to be high, they are recommended to look upon new area of lending and investment. The rural area of our country is still underdevelopment because of lack of proper investment in different sectors. To compromise between the liquidity and credit need of rural economy, these banks are highly recommended to expand their credit in this area. This helps to minimize idle fund.
- iv. The ratio of non- interest bearing deposit to total deposit SCBNL is the lowest and this has resulted in the highest ratio of interest expenses to total deposit.

- Hence the bank is suggested to reduce the interest rate. Therefore, the volume of interest bearing deposit in its deposit mix reduces the gab between interest income and interest expenses.
- v. SCBNL's contribution in loan and advances is the lowest and this has low degree variation and low growth rate as compare to Nabil. Since the entire economy is largely dependent on the proper execution of lending functions by commercial banks. The low tendency towards lending affects the performance of the sampled banks in long run due to its paradox. Low level of lending constitutes the low level of investment resulting in low level of productive and employment generation and this cause slack of economy. This slackness in economy adversely effects the funding as well as non-funding activities of banking business. Thus SCBNL is recommended to give extra priority on productivity and priority sector loan.
- vi. The contribution made by sampled banks in priority sector is not satisfactory. SCBNL's volume in this sector is very low. Since the prosperity national economy is highly dependent upon this sector, sampled two banks are especially SCBNL is recommended to increase its volume of credit in this sector.
- vii. Following the normal guidance of NRB and acting upon this also reduce many of credit risk arising from borrower's defaulter, lack of proper credit, appraisal, defaulter by blacklisted borrower's and professional defaulter. The over confidence in commercial banks regarding credit appraisal efficiency and negligence in taking information from credit information bureau has caused many of bad debts in these banks. Hence, these banks are recommended to follow the directive of NRB strictly and be more cautions and realistic while granting loans and advances. The major solution of reducing the risk is to a avoid lending in more risky area until bank does not fully satisfy itself regarding the failure viability of the project. The establishment of Asset Management Company, which helps the commercial banks in collecting their debts and improving their credit rating efficiency, should be initiated.
- viii. The low provisioning on loan and low percentage of non-performing loan in SCBNL is not due to the proper lending and investment of this bank. Again the portfolio of lending and investment of this bank cannot be regarded as the

best mix of lending and investment. The low deposit cost, increased foreign currency, deposits remittance, the high portion of fee based income and exchange earning of this bank is main reason for this bank to be less oriented towards lending. This less orientation toward lending has made this bank successful to have low ratio of provisioning and low percentage of bad debts. If the exchange income is reduced due to the strength of Nepalese rupee in future and fee based activities tend to decline because of economic slackness, the existence of this bank may questioned in future. Thus this bank is highly recommended to increase sustainable banking practice in coming days.

- ix. The ratio of total income to total expenses of SCBNL is highest and Nabl is moderate. This ratio tends to be unfavorable due to the comparative higher operating cost of these banks. The productivity of the expenses in SCBNL is significantly higher than Nabil thus these banks are highly recommended improve their operational efficiency and increase the productivity of expenses made. Introducing sophisticated banking system, developing high motivational strength in management, increasing interest turnover are some technique that improve the productivity of expenses and increased the gap between income and expenses.
- x. As examine by total interest income to interest expenses ratio, the interest gap in SCBNL and Nabil is highly unfabcourable for the national development. Since the gap is not existed due to the credit creation power of these banks, as the total loan and advances to total deposit ratio not even 1:1, this gap has its reason with high interest charged and low interest offering. This ratio has clearly indicating that these banks not following the NRB directives to maintain overall 5% gap in interest charged low interest in lending Lowering this gap, results in high volume of loans and advances and helps in increasing the sustainable lending practice.

## **BIBLIOGRAPHY**

- Annual Report, 205/06 to 2009/010, Nabil Bank Limited.
- Annual Report 2005/2006 to 2009/2010, Standard Chartered Bank Limited.
- Bhattacharya, H. (1998), *Banking Strategy, Credit Appraisal and Lending Decision; A Risk Return Framework*. 1<sup>st</sup> Edition, New Delhi: Oxford University Press.
- Charles, J.C (1999), Investment. New York: McGraw HUI International Edition.
- Gautam, S. (2009), "Impact and Implementation of NRB Guidelines Directives of Commercial banks: A Study of Nabil Bank Limited and Nepal SBI Bank Limited", An Unpublished Master Thesis, shankar Dev Campus, T.U.
- Joshi, P.R. (2001), *Research Methodology*. 1<sup>st</sup> Edition, Kathmandu: Buddha Academic Publisher and Distributor Pvt. Ltd.
- Kafle, D.N. (2009), "Non-performing loans of Nepales commercial Banks" An Unpublished Thesis, T.U
- Karmacharya, S. (2010), A Study on the Deposit Mobilization by the Join venture Banks "Kathmandu: An Unpublished Masters Level Thesis, T.U.
- K.C. S. and Shekhar, Lekshiny (2000), *Banking Theory and Practice*. 18<sup>th</sup> Revised Edition, New Delhi: Vikas Publishing House Pvt. Ltd.
- Khadka, R.R. (`1998), " A Study in Investment Policy of NepalArabBank Ltd.
  in Comparison to Nepal SBI Bank Limited", An Unpublished Thesis,
  Shankar Dev Campus, T.U.
- Khatri, S. (2004), *One Umbrella Act's Pros and Cons*, New Business Age, Vol: 3 No 12: 18-20
- Kishi ,D.L. (1996), The Changing Face of banking sector and the HMG/N recent budgetary policy. The Business Voice of Nepal, The special issue of Banijya Sanachar, T.U. Kritipur.
- Kothari, C.R (1990), *Research Methodology : Mdethods and Techniques*, 2<sup>nd</sup> Edition, New Delhi : Wishwa Prakashan.
- Kumar, A. (1997), Social Research Method, New Delhi, Anmol Publications pvt.Ltd.
- Lynch, R.L. and Williamson R.P (1989), *Accounting for Management*, New Delhi: tata Mc Graw Hill Publishing Company Limited.
- Mandala, M. (2005), "A Comparative Financial Performance Appraisal Of joint Venture Banks An Unpublished Master Thesis, Central Department of Management, T.U

- Nepal Samacharpatra (2009), *Black Listed Borrowers and Amount Due from*Kathmandu: Daily News, December 6, 2009
- Nepal Rastra Bank (2010), *Banking and Financial Statistics*, Kathmandu: NRB Volume No 49 Mid July.
- Ojha, L.P. (2008), Lending Practices: A Study on Nabil Bank Limited,

  Standard Chartered Bank Nepal Limited and Himalayan Bank Limited",

  An
  Unpublished Master Thesis, Shankar Dev Campus, T.U.
- Pandey, I.M. (1996), Financial Management, New Delhi Vani Educational Books.
- Pant, P.R. (2009), Fieldwork Assignment and report writing, Kathmandu, Buddha Academic Enterprises Pvt.Ltd
- Pradhan, S. (1996), Basics Of financial Management, Kathmandu Educational Enterprise (p) Ltd
- Poudel, S.I. (2010), A comperative Analysis of Financial performance between NBL and NGBL" An Unpublished Master Thesis, T.U
- Pradhan, R.S. (1999), *Stock Market Behaviour in a small Capital Market*: A Case of Nepal, The Nepalese Management Review.
- Pradhan, S. B. (2009), *Deposit Mobilization, its Problem and Prospects*, Nepal Bank Patrika, Baishakh Masanta.
- Radhaswamy, M. (1994), *Practical Banking*, 3rd Edition, New Delhi: S. Chand and Company Ltd.
- Rao, B. R. (1994), *Current Trends in Indian Banking*, New Delhi: Deep and Deep publications Ltd
- Sharma, B. (2009), Banking the future on Competition, Business age, October.
- Sharma, R. (1995), To Analysis of commerciasl Banks lending to the GDP of Nepal New Business Age, Vol. 9, No 16:27-39
- Shrestha, S. (1993), Lending Operation of Commercial Banks of Nepal and Its
  on GDP, The Business Voice of Nepal, The special issue of Banijya
  Sanachar, T.U. Kritipur.
- Shrestha, U. (2008)," *Investment Practices of Joint Venture Banks in Nepal*", An Unpublished Thesis, Shankar Dev Campus, T.U.
- Subedi, K. (2004), Growth in Major Commercial Banks, New Business Age, Vol. 3, No 12:47-48
- Subedi, R. (2006), "A Comparative Study of Financial Performance between

  Himalayan Bank Limited and Everest Bank Limited", An Unpublished Master Thesis,

  Central Department of Management, T.U.

# Appendix-1

Calculation of correlations Coefficient Of NABIL and SCBNL

1 Between total Deposit and Loan and Advances

NABIL (Rs in million)

	Total	Loan and			
	Deposit	Advance			
Year	X	Y	$X^2$	$Y^2$	Xy
2005/2006	14586.800	10586.17	212774734	112066995	154418344
2006/2007	19348.400	12922.54	374372191	166992040	250030472
2007/2008	23342.400	15545.77	544867637	241670964	362875581
2008/2009	31915	21365.05	1018567225	456465361	681865570
2009/2010	37348.300	27589.93	1394895513	761204237	1030436983
2010/2011	49608.37	31243.54	2460990374	976158792	1549941092
Total	176149.27	119253.01	6006467674	2714558389	40299568042

$$r = \frac{n - xy Z - x, y}{\sqrt{n - x^2 Z(-x)^2} \sqrt{n - y^2 Z(-y)^2}} = 0.95$$

$$P.E = 0.6745 \frac{1 \, Z \, r^2}{\sqrt{n}} = 0.065$$

	Total	Loan and			
	Deposit	Advance			
Year	X	Y	X2	Y2	Xy
2005/2006	19335.09	8143.20	373845705	66311706	157449504
2006/2007	23061.03	8935.42	531811104.7	79841730.58	206059988.70
2007/2008	24647.02	10502.63	607475594	110305236.9	258858531
2008/2009	29743.99	13718.59	884704941	1881997116	408045603.8
2009/2010	35871.72	13679.75	1286780296	187135560.10	490716161.70
2010/2011	37999.24	15121.24	1443942241	228651899	574595628
Total	170658.09	70100.83	5128559877	860445842	2095725415

$$r = \frac{n \quad xy Z \quad x, \quad y}{\sqrt{n \quad x^2 Z(-x)^2} \sqrt{n \quad y^2 Z(-y)^2}} = 0.92$$

$$P.E = 0.6745 \frac{1 \, Zr^2}{\sqrt{n}} = 0.075$$

# 2 Between Loan and advance and Share holders Equity

NABIL (Rs in million)

	Loan and	Share			
	advance	holders			
		equity			
Year	X	Y	X2	Y2	Xy
2005/2006	10586.17	1657.63	112066995.30	274155111.20	17547952.98
2006/2007	12922.54	1874.99	166992040.1	3515587.5	24229633.27
2007/2008	15545.77	2057.04	241670964.9	4231536.98	31978737.09
2008/2009	21365.05	2437.19	456465361.5	5939895.05	52070686.21
2009/2010	27589.93	3130.24	761204237.4	9798402.45	8636310.48
2010/2011	31243.54	3642.83	97615.8792	13270210	113814905
Total	119255.01	14799.92	1738497215.0792	310910743.18	174521901.69

$$\mathbf{r} = \frac{n \quad xy \mathbf{Z} \quad x, \quad y}{\sqrt{n \quad x^2 \mathbf{Z}(-x)^2} \sqrt{n \quad y^2 \mathbf{Z}(-y)^2}}$$

P.E = 
$$0.6745 \frac{1 \,\mathrm{Z} \, r^2}{\sqrt{n}}$$
 r=0.75 p.E=0.13

	Loan and	Share			
	advance	holders			
		equity			
Year	X	Y	X2	Y2	Xy
2005/2006	8143.20	1582.41	66311706	2504021.41	12885881.11
2006/2007	8935.42	1754.13	79841730.58	3076972.65	15673888.28
2007/2008	10502.63	2116.35	110305236.9	4478937.32	22227241
2008/2009	13718.59	2492.54	1881997116	6212755.65	34194134.32
2009/2010	13679.75	3052.46	187135560.10	9317512.05	41756889.69
2010/2011	15121.24	3236.34	228651899	1047387	48937474
Total	70100.83	14234.23	860445844.18	26637586.08	175675508.4

$$\mathbf{r} = \frac{n \quad xy \mathbf{Z} \quad x, \quad y}{\sqrt{n \quad x^2 \mathbf{Z}(-x)^2} \sqrt{n} \quad y^2 \mathbf{Z}(-y)^2}$$

P.E = 
$$0.6745 \frac{1 Zr^2}{\sqrt{n}}$$
 r=.0.85 pE=0.083

## 3- Between Investment and Loan and advance

NABIL (Rs in million)

	Investment	Loan and advance			
Year	X	Y	X2	Y2	Xy
2005/2006	4275.52	10586.17	18280071.27	112066995.30	45261381.56
2006/2007	6178.53	12922.54	38174232.96	166992040.1	79842301.07
2007/2008	8945.31	15545.77	80018571	241670964.9	139061731
2008/2009	9939.77	21365.05	98799027.65	456465361.5	212363683
2009/2010	10826.37	27589.93	117210287.4	761204237.4	298998790.5
2010/2011	13003.21	31243.54	169083470	976158792	406266311
Total	53168.71	119253	521565660.28	2714558391.2	1181794198.13

$$\mathbf{r} = \frac{n \quad xy \mathbf{Z} \quad x, \quad y}{\sqrt{n \quad x^2 \mathbf{Z}(-x)^2} \sqrt{n \quad y^2 \mathbf{Z}(-y)^2}}$$

P.E = 
$$0.6745 \frac{1 \, \text{Z} \, r^2}{\sqrt{n}}$$

r=0.96 p.e=0.28

	Investment	Loan and advance			
Year	X	Y	X2	Y2	Xy
2005/2006	9702.55	8143.20	94139476.5	66311706	79009805.16
2006/2007	12847.53	8935.42	165059027.1	79841730.58	114798076
2007/2008	13553.23	10502.63	183690043.4	110305236.9	142344560
2008/2009	13902.81	13718.59	193288125.9	1881997116	190726950.2
2009/2010	20236.12	13679.75	409500552.7	187135560.10	276825062
2010/2011	22254.16	15121.24	495247637	228651899	338735910
Total	92496.4	70100.83	1540924862.6	860445844.18	1142440363.36

$$r = \frac{n - xy Z - x, y}{\sqrt{n - x^2 Z(-x)^2} \sqrt{n - y^2 Z(-y)^2}}$$

P.E = 
$$0.6745 \frac{1 Zr^2}{\sqrt{n}}$$
 r=0.98,PE=0.012

## 4- Between total Income and Loan and Advance

NABIL (Rs in million)

	Total	Loan and			
	Income	Advance			
Year	X	Y	X2	Y2	Xy
2005/2006	2717.80	10586.17	7386436.84	112066995.30	28771092.83
2006/2007	2949	12922.54	8696601	166992040.1	38108570.46
2007/2008	3555	15545.77	12638025	241670964.9	55265212.35
2008/2009	4144	21365.05	17172736	456465361.5	88536767.2
2009/2010	4700	27589.93	22090000	761204237.4	129672671
2010/2011	3541.50	31243.54	12542222	97618792	110648997
Total	21607.3	119253	80526020.84	1836018391.2	451003310.84

$$r = \frac{n - xy Z - x, y}{\sqrt{n - x^2 Z(-x)^2} \sqrt{n - y^2 Z(-y)^2}}$$

P.E = 
$$0.6745 \frac{1 \, \text{Z} \, r^2}{\sqrt{n}}$$
 r=0.97 P.E. = 0.11

	Total	Loan and			
	income	Advance			
Year	X	Y	X2	Y2	Xy
2005/2006	2112.27	8143.20	4460544	66311706	17006307.06
2006/2007	2869.86	8935.42	8236096.42	79841730.58	22643404.44
2007/2008	2976.50	10502.63	8859552.25	110305236.9	31261078.20
2008/2009	3176.0	13718.59	10086976	1881997116	43570241.84
2009/2010	3788.26	13679.75	1450989.59	187135560.10	51822449.46
2010/2011	2851.09	15121.24	8128714	228651899	43112016
Total	17773.98	70100.83	41222872.26	860445844.18	209415497

$$r = \frac{n \quad xy Z \quad x, \quad y}{\sqrt{n \quad x^2 Z(-x)^2} \sqrt{n \quad y^2 Z(-y)^2}}$$

$$P.E = 0.6745 \frac{1 \, Zr^2}{\sqrt{n}}$$

r = 0.98, PE=0.016

5 Correlation between Interest suspense and Total interest income

NABIL (Rs in million)

	Interest	Total			
	Suspense	Income			
Year	X	Y	X2	Y2	Xy
2005/2006	122.30	1068.74	14957.21	1142205.18	130706.9
2006/2007	100.67	1300.99	12027.50	1716073.80	143666
2007/2008	112.18	1587.77	12584.35	2521013.51	178116.03
2008/2009	128.43	1978.69	16494.26	3915214.11	254123.15
2009/2010	151.56	2798.48	22970.43	7831490.31	424137.62
2010/2011	162.49	2954.36	2680	8728243	479847
Total	777.63	11689.03	81713.75	25854239.91	1610596.7

$$r = \frac{n - xy Z - x, y}{\sqrt{n - x^2 Z(-x)^2} \sqrt{n - y^2 Z(-y)^2}}$$

P.E = 
$$0.6745 \frac{1 \text{ Z} r^2}{\sqrt{n}}$$
 r=0.91 P.E=0.051

	Interest	Total			
	Suspance	Income			
Year	X	Y	X2	Y2	Xy
2005/2006	133.47	1058.67	17817.24	1120782.16	141300.68
2006/2007	160.69	1189.60	25821.27	1415148.16	191156.82
2007/2008	182.45	1411.98	33288	1993687.52	257615.75
2008/2009	115.48	1591.19	13335.63	2531885.61	183750.62
2009/2010	117.64	1887.22	13839.16	3561599.32	222012.56
2010/2011	144.03	2334.62	20744	5450497	336255
Total	853.76	9473.28	124845.3	16073599.77	1332091.43

$$\mathbf{r} = \frac{n \quad xy \mathbf{Z} \quad x, \quad y}{\sqrt{n \quad x^2 \mathbf{Z}(-x)^2} \sqrt{n \quad y^2 \mathbf{Z}(-y)^2}}$$

P.E = 
$$0.6745 \frac{1 \,\mathrm{Z} \, r^2}{\sqrt{n}}$$
 r = -0.94 P.E= 0.035

## 6 Correlation Between provision for Loan Loss and Loan and Advance

NABIL (Rs in million)

	Loan Loss	Loan and			
	Provision	advance			
Year	X	Y	X2	Y2	Xy
2005/2006	64,20	10586.17	4121.64	112066995.30	679632.11
2006/2007	55.58	12922.54	3089.13	166992040.1	718234.77
2007/2008	45.72	15545.77	2090.31	241670964.9	710752.60
2008/2009	23.58	21365.05	556.01	456465361.5	503787.87
2009/2010	24.20	27589.93	585.64	761204237.4	667676.30
2010/2011	28.04	31243.54	786.24	976158799	876068
Total	261.12	119253	11228.97	2714558398.2	4156151.65

$$r = \frac{n + xy Z + x, y}{\sqrt{n + x^2 Z(-x)^2} \sqrt{n + y^2 Z(-y)^2}}$$
  $r = -0.12$ 

$$P.E = 0.6745 \frac{1 \, Zr^2}{\sqrt{n}} = 0.29$$

	Loan Loss Provision	Loan and advance			
Year	X	Y	X2	Y2	Xy
2005/2006	69.88	8143.20	4883	66311706	569046.81
2006/2007	47.72	8935.42	2277.19	79841730.58	436398.24
2007/2008	56.63	10502.63	3206.95	110305236.9	594763.93
2008/2009	41.04	13718.59	1684.28	1881997116	563010.93
2009/2010	22.76	13679.75	518.01	187135560.10	311351.11
2010/2011	20.49	15121.24	419.84	228659899	309834
Total	258.52	70100.83	12989.27	860453844.18	2784405.02

$$r = \frac{n + xy Z + x, y}{\sqrt{n + x^2 Z(-x)^2} \sqrt{n + y^2 Z(-y)^2}}$$
  $r = -.50$ 

P.E = 
$$0.6745 \frac{1 \,\mathrm{Z} \, r^2}{\sqrt{n}}$$
 pE= 0.22

## 7. Correlation Between Interest income and net profit

NABIL (Rs in million)

	Total	Net profit			
	Income				
Year	X	Y	X2	Y2	Xy
2005/2006	1068.74	520	1142205.18	270400	555744.80
2006/2007	1300.99	635	1716073.80	403225	831843.65
2007/2008	1587.77	674	2521013.51	454276	1070156.98
2008/2009	1978.69	746	3915214.11	556516	1475946.08
2009/2010	2798.48	1031	7831490.31	1062961	2885232.88
2010/2011	2954.36	1422.36	8728243	2023107	4202163
Total	11689.03	5028.36	25854239.91	4770485	11021087.39

$$r = \frac{n - xy Z - x, y}{\sqrt{n - x^2 Z(-x)^2} \sqrt{n - y^2 Z(-y)^2}}$$

P.E = 0.6745

$$\frac{1 \,\mathrm{Z} \, r^2}{\sqrt{n}}$$
 r=0.21 pE=0.2