# INVESTMENT PRACTICES OF JOINT VENTURE COMMERCIAL BANKS

## (With Special Reference to Standard Chartered Bank Ltd and Nepal SBI Bank Ltd)

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**A THESIS**

Submitted to:

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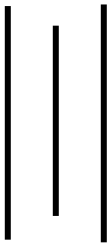

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# RECOMMENDATION

This is to certify that the Thesis

Submitted by:

**BAL BAHADUR GHARTI**

Entitled:

## Investment Practices of Joint venture Commercial Banks

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*has been prepared as approved by this Department in the prescribed format of the Faculty of Management. This thesis is forwarded for examination.*

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# VIVA-VOCE SHEET

We have conducted the viva –voce of the thesis presented

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*And found the thesis to be the original work of the student and written According to the prescribed format. We recommend the thesis to be accepted as partial fulfillment of the requirement for*

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# DECLARATION

I hereby, declare that the work reported in this thesis entitled **"Investment Practices of Joint Venture Commercial Banks with Special Reference to Standard Chartered Bank Ltd and Nepal SBI Bank Ltd"** submitted to the Shanker Dev Campus, Faculty of Management, Tribhuvan University, is my original done in the form of partial fulfillment of the requirements for the Masters of Business Studies (M.B.S), under the supervision of **Asso. Prof. Prakash Singh Pradhan** of Shanker Dev Campus, Tribhuvan University.

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**BAL BAHADUR GHARTI**

# TABLE OF CONTENTS

**PAGE NO.**

# LIST OF TABLE

# LIST OF FIGURE

# ABBREVIATION

A.M : Arithmetic Mean

ATM : Automatic Trailer Machine

BAFIA : Bank and Financial Institutions

C.V : Coefficient of Variance

CRR : Cash Reserve Ratio

EBL : Everest Bank Limited

FY : Fiscal Year

HBL : Himalayan Bank Limited

LC : Letter of Credit

NABIL : Nabil Bank Limited

NRB : Nepal Rastra Bank

NSBIBL :Nepal State Bank of India Bank Limited

P.E : Probable Error

RBB : Rastra Banijya Bank

S.D : Standard Deviation

SCBL : Standard Chartered Bank Nepal Limited

# CHAPTER – I

# INTRODUCTION

## 1.2Background of the Study

The development of any country depends upon economic development of the country and economic development is supported by financial infrastructure of the country. Banks play vital role in the economic growth of the country. Every well-organized financial institution including finance companies, commercial banks, join venture banks and other financial institutions, plays significant, role for the development of the country. They collect scattered financial resources from the mass and invest them among those who are associated with the economic, commercial and social activities of the country. This provides fuel to development process. Integrated and speedy development of the country is possible only when competitive financial service reaches everywhere in the country. It has been well established fact that the economic activities of any country can hardly be carried forward without the assistance and support of financial institution. Banks constitute an important segment of financial infrastructure of any country. Banking when properly organized, aids and facilities the growth of trade and industry and enhance national economy. In the modern economy banks are considered as leaders of development. Besides contribution in overall development of the country, the commercial banks render numerous services to their customer in view of facilitating their economic and social life. Investment is an important ingredient of overall national economic development because it ensures efficient allocation of fund to achieve the materials and economic well being of the society. Investment policy is an important factor of the investment practice. Investment refers to sacrifice of current money for future money, generally two attributes are involved in it, they are time and risk. In this study, the word investment conceptualized the investment of income, savings or other collected fund. The term investment covers a wide range of activities. It is widely known fact that an investment is only possible where there is adequate savings. If all the incomes and savings are used to fulfill the incomes and savings are used to fulfill the minimum needs, then there is no existence of investment. Thus, both

saving and investment are interrelated. Investment policy is the most important factor of the investment practice. The joint venture commercial banks formulate sound investment policies to make it more effective, which eventually contributes to the economic growth of the country. The sound investment policy helps the banks to maximize the quality and quantity of investment and helps to achieve the loan objective of profit maximization and social welfare. Formulation of sound investment policies and coordinated and planned efforts push forward to the forces of economic growth.
The commercial banks should careful while performing the credit creation function. Investment policy should be formulated in such a way that maximizes the profit and minimizes the risk from lending. Nepalese joint venture commercial banks are far behind fulfilling the responsibility to invest in the crucial sectors of the economy for the upliftment of the national economy. Good investment policy ensures maximum amount of investment to all sectors with proper utilization.

In the present context there is tough competition in the banking market but not enough opportunity to make investment. In this salutation, joint venture banks can take initiation in search of new opportunities to survive in the competitive market and earn satisfactory profit. There is high liquidity in the money market but here seems to be no profitable area to invest. Flow of money is more than requirement. Likewise, the banks and financial companies (institutions) are offering very low deposit interest rate. This indicates that the joint venture banks should be able to create new investment opportunities to make investment to survive and earn maximum profit in the highly competitive market.

For the entire development of the country the proper development of industry and trade is must. Therefore, the banks should give priority for the accelerating the economic growth of the country. As the strong economic condition of a country is represented by the development of industry, trade and business, which is main sector of the banks to carry out its activities and to achieve its aim of profit maximizing. Proper investment practice assists the joint venture banks to make profitable investment which helps in the development of country as well as achieve the objective of making the profit.

## 1.2 Brief History of the Evaluation of Banking

The evolution of banking had started a long time ago. In ancient Greece, the famous temple of Delphi and Olympia served as the great depositories for people's surplus funds and these were the centers of money lending transactions. However, as a public enterprises banking started around the middle of the twelfth century in Italy. The first bank called the **"Bank of Vanice"** was established in Vanice, Italy in 1157 A.D. Following establishment of this bank two other banks **"Bank of Barcelona"** and **"The Bank of Geneva"** established in 1609 with the expansion of commercial banking activities in Northern Europe, No. of private banking organization sprang up there and slowly it spread throughout the world.

The evaluation of organized financial system has a more recent history in Nepal than in other counties. Like other countries, landlords, moneylenders, merchant, goldsmith etc. are ancient bankers of Nepal. Even though the establishment of banking industry is very recent. Some traditional banking operations were practice even in the ancient time. The establishment of "Tejarath Adda" during the year 1877 A.D. was the first step in institutional development to provide loan of a lower rate against collateral of gold and silver. The area of its functioning was limited in Kathmandu valley and some urban areas of Terai. Tejarath Adda may be regarded as the father of modern banking institutions. The development of trade with different countries increases the necessity of eh institutional banker. Which can act more widely to enhance the trade and commerce and to touch the remote non banking sector in the economy? Taking into consideration this situation the "Udhyog Parishad" was constituted in 1963 A.D. After one year, it formulated the "Company Act" and "Nepal Bank Act" in 1937 A.D. Nepal Bank Limited was established under Nepal Bank Act in 1937 A.D. as a first commercial bank of Nepal with 10 million authorized capital.

Modern banking practices emerged with the establishment of Nepal Bank Limited in 1934 A.D. However the establishment of Nepal Bank Limited alone was not sufficient and satisfactory to conduct the banking activities in Nepal. As a result, "Nepal Rastra Bank" was established in 1956 A.D. as a central bank under Nepal Rastra Bank Act

1956 A.D. with an objective of supervision, protecting and directing the functions of commercial banking activities. Another commercial bank fully owned by the government named 'Rastriya Banijya Bank" was established in 1966 to spread banking services to both rural and urban areas. Similarly, "Agricultural Development Bank" was established in 1967 A.D. with an objective to develop and modernize agricultural sector.

After the restoration of democracy, the first elected government in 1991 adopted liberalized and market oriented economic policies followed by liberalization in the financial sector. These include the deregulation of interest rate, free entry of banks and financial institutions, removal of statutory liquidity ratio, formulation of new commercial banks, finance company and development banks act so as to encourage private sector including foreign banks and financial institutions. Since then, various financial institutions i.e. joint venture banks, domestic commercial banks,
development banks, finance companies, co-operative banks, credit guarantee corporation, employee provided fund, national insurance corporation, Nepal stock exchange have come into existence to fulfill the financial needs of the country and assisting the financial development of the country.

## 1.3 Introduction of Joint Venture Banks

The commercial bank firmed by joining two or more enterprises is known as joint venture bank. The main purpose of joint venture bank is to join economic forces in order to achieve desired goal. Joint venture banks are more efficient and effective monetary institution in modern banking field than other old types of bank in Nepalese context. The primary objective of the joint venture banks is always to earn profit by investing the loan to the people associate with trade, business, industry etc."Joint venture is joining of force between two or more enterprises for the purpose of carrying out a specific operation (industrial and commercial investment production or trade)" (Gupta, 1994: 15-24).

All the Nepalese JVBs are established and operated under the rules and regulations and guidance of Nepal Rastra Bank. Nepal Rastra Bank had issued a certain directive to those banks, regarding the mandatory credit accusation to the priority sector. Nepal Rastra Bank has directed to the government owned banks to invest 3% and the JVBs to invest 0.50% of the total outstanding credit priority sector (Economic Report, 1997/98:4).

**Joint Venture Banks of Nepal**

The history of joint venture banks is not so long. After establishment of democracy, the government adopted liberal and market oriented economic policy which facilitated the establishment and development of joint venture banks.

At present there are six joint venture banks in Nepal which are listed as follows:

| S.N | Name of Banks | Established Date | Head Office |
|---|---|---|---|
| 1 | NABIL | 2041/03/29 | Kathmandu |
| 2 | SCBL | 2043/10/16 | Kathmandu |
| 3 | HBL | 2049/10/05 | Kathmandu |
| 4 | NBBL | 2050/02/23 | Kathmandu |
| 5 | NSBIBL | 2050/03/23 | Kathmandu |
| 6 | EBL | 2051/07/01 | Kathmandu |

**A. Standard Chartered Bank Limited (SCBL)**

Standard Chartered Bank Limited was established in 1985 as a second foreign joint venture bank under the company act 1964 by the name of Nepal Grindlays Bank Limited. ANZ Grindlays Bank PIC held 55 percent of total capital and Nepali promoters held other half portion. 45 percent shares by general public of Nepal. ANZ Grindlays Bank PLC is managing the bank under joint venture and technical service agreement signed between ANZ Grindlays Bank PLC and Nepali Promoters. Nepal Grindlays Bank Limited and changed its name as Standard Chartered Bank Limited (SCBL). Its share subscription is given as:

ANZ Grindlays Bank PLC - 55.00%

Nepalese Public - 45.00%

The following extra facilities have been providing by the bank.

Credit Cards

Tele Banking

Any Branch Banking

ATM (Automatic Teller Machine)

VISA Card

24 Hours Banking

The bank is also providing its banking facilities by establishing branches in different region and parts of the country, which includes both urban and rural areas.

**B. Nepal SBI Bank Limited (NSBIBL)**

Nepal SBI Bank Limited (SBI) was established under the company act 1964, in 1993. This is the joint venture of state bank of India and Nepali promoters. The State Bank of India holds 50 percent shares of total investment. Nepal SBI Bank Limited is managed by the State Bank of India under the Joint Venture and Technical Services Agreement signed between it and Nepali promoters. Its share subscription is given as:

State Bank of India, India - 50.00%

Employee Provident fund - 15.00%

Agriculture Development Bank Ltd., Nepal (ADB/N) - 05.00%

Nepalese Public - 30.00%

The main objectives of the bank are to carryout modern banking business in the country under the commercial act 1974, and to provide loan on agriculture, commercial and industrial sectors.

The following facilities have been providing by the bank are:

International Trade and Bank Guarantee

Any Branch Banking

Conventional Banking Facilities, Remittances, etc.

## 1.4 Profile of Concern Banks

| S.N | Names | Operation Date(A.D.) | Head Office |
|---|---|---|---|
| 1 | Nepal Bank Limited | 1937/11/15 | Dharmapath,Kathmandu |
| 2 | Rastriya Banijya Bank | 1966/01/23 | SinghDarbar,kathmandu |
| 3 | Nabil Bank Limited | 1984/07/16 | Kantipath, Kathmandu |
| 4 | Nepal Investment Bank Limited | 1986/02/07 | Durbarmarg , Kathmandu |
| 5 | Standard Chartered Bank Nepal limited | 1987/01/30 | NayaBaneshwor, Kathmandu |
| 6 | Himalayan Bank Limited | 1993/01/18 | Thamel ,Kathmandu |
| 7 | Nepal SBI Bank limited | 1993/07/07 | Hattishar,Kathmandu |
| 8 | Nepal Bangladesh Bank Limited | 1993/06/05 | NayaBaneshwor , Kathmandu |
| 9 | Everest Bank limited | 1994/10/18 | Lazimpat, Kathmandu |
| 10 | Bank Of Kathmandu Limited | 1995/03/12 | Kamaladi, Kathmandu |
| 11 | Nepal Credit and Commerce Bank limited | 1996/10/14 | Siddarthanagar, Rupandehi |
| 12 | Lumbini Bank Limited | 1998/07/17 | Narayangadh, Chitwan |
| 13 | Nepal Industrial &Commercial Bank limited | 1998/07/21 | Biratnagar, Morang |
| 14 | Machhapuchhre Bank Limited | 2000/10/03 | Prithivichowk , Pokhara |
| 15 | Kumari Bank limited | 2001/04/03 | Putalisadak ,Kathmandu |
| 16 | Laxmi Bank limited | 2002/04/03 | Adarshanagar,Birgung |
| 17 | Siddhartha Bank limited | 2002/12/24 | Kamaladi,Kathmandu |
| 18 | Agriculture Development Bank limited | 2006/03/16 | Ramshapath, Kathmandu |
| 19 | Global Bank limited | 2007/01/02 | Birgung,Parsa |
| 20 | Citizens Bank International Ltd | 2007/06/21 | Kamaladi, Kathamdu |
| 21 | Prime Commercial Bank Ltd. | 2007/09/24 | New road, Kathmandu |
| 22 | Sunrise Bank Limited | 2007/10/12 | Gairidhara crossing Kathmandu |
| 23 | Bank Of Asia Nepal Ltd. | 2007/10/12 | Tripureswor, Kathmandu |
| 24 | Development Credit Bank Limited | 2001/01/23 | Kamaladi,Kathmandu |
| 25 | NMB Bank Ltd. | 1996/11/26 | Babarmahal, Kathmandu |
| 26 | Kist Bank Ltd | 2003/02/21 | Anamnagar, Kathmandu |
| 27 | Janata Bank Nepal limited | 2010 | New Baneshwor, Kathmandu |
| 28 | Mega Bank Ltd. | 2010 | Kantipath, Kathmandu |
| 29 | Commerz and Trust Bank Limited. | 2010 | Kamaladi, Kathmandu |
| 30 | Civil Bank Ltd. | 2010 | Kamaladi, Kathmandu |
| 31. | Century Commercial Bank | 2011 | Putalisadak Kathmandu |

## 1.5 Statement of the Problem

Various joint venture banks have been established to assist the process of economic development of our country. All joint venture commercial banks have played vital role in accepting deposits and providing various types of loans. Loan affects entire development of the country. The development of country is directly related to the volume of loan which also obtained from joint venture banks. The problem of lending has become very serious for developing country like Nepal. This is due to lack of sound investment policy of commercial banks.

J.V. Commercial banks are more confined to be making loan on short-term basis. They are less interested to invest on loan term projects because these banks are much more safety oriented. So they follow conservative loan policy which is based on strong security. The joint venture commercial banks seem to be indifferent to the national economic growth process. This is the main cause of crisis in the commercial banks and in the whole national economy as well.

The joint venture commercial banks have not formulated their investment policy in organized manner. They mainly rely upon the instructions and guidelines of Nepal Rastra Bank. They do not have clear view towards investment policy. Furthermore the implementation of policy has not been done in an effective way. Such banks invest their funds in limited areas to achieve higher amount of profit. This is regarded as very risky step, which may lead to lose in profit as well as principle.

The investment done by joint venture banks to agriculture and industrial sector is not satisfactory to meet the needs of agriculture sector. Except the joint venture banks there are other several financial institutions are being operated in Nepal. The fast growth of such organizations has made prorate increment in collecting deposits. They are not being able to find out new investments sectors required to mobilize their funds.

The interest rate structure in joint venture commercial banks is unorganized and unflavored resulted in higher spread rate, which discourages investments. Such banks

have not paid attention towards proper matching of deposits and loan maturity, which has created several problems. Joint venture banks' investment has been found to have lower productivity, which is due to lack of supervision regarding whether there is proper utilization of their investment. Lack of farsihghtness in policy formulation and absence of strong commitment towards its proper implementation has caused merely problems.

Profit is must for a bank not only from the view point of bank but also from the view point of shareholders and depositors. And profit is only possible if the banks formulate proper and safe investment policy. Every bank must make profit to survive in the competitive market where there is a lot of money and very little investment opportunity exists.

Therefore, appropriate investment policy is the fundamental function of all the joint venture commercial banks and other financial institutions. The problems specially related to investment function of joint venture commercial banks presented briefly as under.

1. Utilization of available fund: Does the SCBL utilize its avainance fund to it ? Appropriation in fund mobilization and investment policy. Is the SCBL's fund mobilization and investment policy is effective and efficient than NSBIBL.
2. What is the relationship of investment and loan and advances with total deposit and total net profit of SCBL and comparing its performance with NSBIBL ?
3. Does the investment decision affect the total earning of the bank?

## 1.6 Objective of the Study

The specific objectives of the present research are to investigate investment practices and policies adopted by Standard Chartered Bank Nepal Ltd. and Nepal SBI Bank Ltd. in compare with each other. The specific objectives of the study are as follows:

1. To evaluate the liquidity management, asset management efficiency, profitability, risk position and investment practices of Standard Chartered Bank Ltd. and Nepal SBI Bank Ltd.

2. To analyze the deposit and investment trends of the sample Banks.

3 .To analyze major problems while mobilizing the deposit

## 1.7 Significance of the Study

The successful mobilization and utilization of domestic resources in must for any developing country to inspire a sustainable economic development. The joint venture banks have played vital role in the collection of scattered small savings from mass and converting them into meaningful investment. Deposit collection has no meaning, if it is not invested properly. Thus investment activity is the lifeblood of any financial institution as well as nation. Better return and sustainability are only possible through proper utilization of fund as investment. So, the investment practice is very important for the joint venture banks. The sound investment policy play vital role to earn good return from investment.

The comparative study on investment practice of joint venture banks would provide useful information to the management of concerned bank that would help them to take corrective action to improve the weaknesses to investment. Similarly, the concerned persons would get required information and can take the decision to make investment on shares of bank. In the same way the academic institution, bank employees, trainees and the others concerned with joint ventures bank would get useful feedback from this study.

## 1.8 Limitations of the Study

The basic limitations of this study are as follows:

1. This study is based on secondary as well as primary data.
2. Two banks are taken for the study, which are Standard Chartered Nepal Bank Ltd. and Nepal SBI Bank Ltd.
3. The whole study covers the data of seven years of period.
4. Data, which are related to fund mobilization as loan and advance and investment in government securities and other financial institutions are considered.
5. Non availability of various references of source acts as constraints for the study.

## 1.9 Plan of the Study

This study has divided into five chapter's viz. introduction, review of literature, research methodology, data presentation and analysis and conclusion and recommendations.

**First Chapter**

This chapter deals with the introduction part of the study. It includes introduction of joint venture banks, background, history of the bank, statement of the problem, objective and significance of the study, plan of the study and limitations of the study.

**Second Chapter**

The second chapter deals with review of literature, which includes, review of books, review of bulletins, journals and annual reports published by banks and other related authorities, review of related articles and study of previous thesis as well.

**Third Chapter**

This chapter explains the research methodology used to evaluate investment practice of joint venture banks in Nepal. This chapter consists of research design, sources of data, population and sample, tools and methods of analysis.

**Fourth Chapter**

This chapter is analyzing chapter, which deals with presentation and analysis of data through definite course of research methodology. This chapter analyses different financial ratios and statistical analysis related to investment and fund mobilization of joint venture banks.

**Fifth Chapter**

This is the last chapter of the study, which provides summary and conclusion, suggestion and recommendations for overcoming the weaknesses and improving the future performance of the joint venture banks. Finally, an extensive bibliography and appendices are also presented at the thesis.

# CHAPTER – II
# REVIEW OF LITERATURE

## 2.1 Theoretical Frameworks

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

## 2.2 Meaning of Some Terminologies

**i. Deposit**

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

**ii. Loan and Advances**

Loan and advances is the main sources of income and most profitable assets to a bank. A bank is always willing to lend as possible since they constitute the larger part of revenue. A commercial bank hardly lends money for a long period. The commercial banks lend money for a short period of time that can be collected at a short period. The commercial banks never bounded to provide long-term loan because the banks have to synchronize the loans and advances with the nature of deposit they receive. The banks provide loan and advances against the personal security of the borrower or against the

security of the immovable and movable properties. The banks provide loans in the various forms like overdraft, cash credit, direct, direct loan and discount bills of exchange.

**iii. Investment in Government Securities, Shares and Debentures**

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

**iv. Investment on other Company's Shares and Debentures**

The joint ventures commercial banks also mobilize its deposit to purchase the share & debenture of others companies. There are two motive behind investment of funds on other company's shares and debentures by the banks the first is to earn profit and the next is to meet the direct of Nepal Rastra Bank.

**v. Assets**

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

**vi. Liabilities**

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

**vii. Balance Sheet**

Balance sheet is one of the important accounting statement which shows the true financial position i.e. position of assets and liabilities of organization. There are two

side of balance sheet they are capital and liabilities and assets and properties sides. Thus balance sheet includes all assets, liabilities and capital.

**viii. Retained Earning**

It is the part of company profits which not distributed as dividend and it is use as ploughed back into a business. Retained earnings may be used to finance fixed investment to finance takeovers at other firms to increase liquid assets.

**ix. Standard Deviation**

The standard deviation is defined as the positive square root of the arithmetic mean of the squared deviation from their arithmetic mean of a set of values. It is also known as ***'Root Mean-Square Deviation'*.** It is denoted by (small sigma).

**x. Coefficient of Variation (C.V.)**

The relative measure based on the standard deviation is known as the coefficient of standard deviation by 100 is known as the coefficient of standard deviation. The coefficient based on standard deviation multiplied by 100 is known as coefficient of variation (C.V.) by the help of C.V. two distributions can be compared to find out their variability.

**xi. Arithmetic Mean**

The sum of all the observations divided by the number of observations is called arithmetic mean (Pant and Chaudhary, 2053: 91).

**xii. Correlation**

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

**xiii. Ratio analysis**

Ratio refers to the numerical or quantitative relationship between two items or variables. In simple language, ratio is one number expressed in terms of another and can be worked out by dividing a number with the other. So, it is calculated by dividing one item of the relationship with the other (Munankarmi, 2002: 468).

**xiv. Off-Balance Sheet Activities**

Off-balance sheet activities involve contacts for future purchase and sale of assets and all their activities are contingent obligations. These activities are not recognized as assets and liabilities on balance sheet.

Some good examples of those are letter of credit (LC), Letter of Governance, Bills for Collection etc. These activities are very important, as they are the good sources of profit to the bank.

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

There are following some important features of sound lending and investment policy suggested by different authors, which the banks must consider.

**i) Safety**

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

**ii. Stability of Income**

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

**iii. Profitability**

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

**iv. Liquidity**

Liquidity generally refers to cash or any assets that can be converted into cash immediately. Similarly, liquidity refers to that state or position of a bank to meet all of its obligations. In other words, it refers to the capacity of the bank to pay cash against deposit. People deposit money at the ban k in different account with confidence that the bank will repay their deposit money when they need, to maintain such confidence of depositors, the bank must keep this point in mind while investing its funds in different securities or at the time of lending. So, that the banks can meet current or short-term obligations when become due for payment.

**v) Legality**

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

**vi. Diversification**

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

**vii. Tangibility**

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

## 2.3 Review of Legislative Provision

In this section, the review of legislative provision under which the commercial banks are operating has been discussed. This legislative environment has significant impact on the commercial banks establishments, mobilization of their banks have to confirm to the legislative provisions specified in the commercial bank act, 2031 and the rules and regulations formulated to facilitate the smooth running of commercial banks.

**Policy Guidelines on Establishment of Commercial Banks**

For the establishment of commercial banks, receiving application form had been stopped since 1995. Considering that such an administrative restriction is not in conformity with the liberal financial policy the following new policy guidelines have been made published on 16th May 2003.

**i. About Paid up Capital**

To establish new commercial banks for national level, paid up capital must be Rs. 1000 million, having its office in Kathmandu valley. Joint investment with foreign bank and financial institution or management contract at least for 3 years with such institutions is required. To establish the commercial banks in all the places in the

Kingdom other than in the Kathmandu valley, the paid up capital must be Rs. 250 million.

**ii. About Share Capital**

In general, the share of commercial banks will be available for the promoters 70% and general public 30%. The foreign banks and financial institutions could have a maximum of 67% share in investment on the commercial banks of national level. In order to provide adequate opportunity for investment to the Nepali promoters in national level banks, only 20% of total share capital will be made available to general public on the condition that the foreign bank and financial institutions are

going to acquire 50% of the total share, in case of commercial banks to be established outside Kathmandu valley, shares investment of promoters and general public should stand at 70% and 30% respectively.

**iii. Legal Procedure**

Banks to be established with foreign promoter participation have also to be registered fulfilling all the legal processes prescribed by the prevalent Nepal laws.

**iv. Banks already in Operation**

Banks that is already in operation and those who have already acquired letter of intent before the enforcement of this provision have to bring their capital level with in seven years i.e. by 16th July, 2009, as per the recently declared provision. Such increase in the capital should be at a rate of 10% should be at the minimum.

**v. Concerning up Graduation**

Bank to be established outside Kathmandu valley could be allowed to operate thought out the kingdom including Kathmandu valley only on the condition that they have brought their paid up capital level to Rs. 1000 million and also fulfilled other prescribed conditions until and unless such banks do not get license to operate throughout the kingdom, they will not be allowed to open any office in Kathmandu valley.

**vi. Promoters Share Payment Procedure**

Of the total committed share capital, the promoters has to deposit in NRB an amount equal to 20% along with the application and another 30% at the time of receiving the

letter of intent on a interest free basis. The bank should put into operation with in one year of receiving the letter of intent. The promoters have to pay fully the remaining balance of committed total share capital before the banks comes into operation. Normally, within 4 months from the date of filling the application; NRB should give its decision for the establishment of the bank whether it is on favor against it. If it declines to issue license, it has to inform in writing with reasons to the concerned body.

**viii. Promoters Qualification and Experience**

Action on the application from promoters will not be initiated if it is proved that their collateral has been put on an financial institutions as a result of nonpayment of loans in the past, who have not cleared such loans or those in the bank list of the credit information bureau and 5 year have not elapsed from the date of removal of their name from such list. The application will be deemed automatically cancelled irrespective of it being on any stage of process for license issuance if the above events are proved, out of the total promoters, one-third should be its chartered accountant or at least a graduate of Tribhuvan University or recognized institutions with major in economics or accountancy, finance, law, banking or statistics. Likewise one-fourth promoters should have the work experience of bank of financial institution of similar nature.

**viii. Promoters Share**

Promoters group's share can be disposed or transferred only on the condition that the bank has been brought in operation, the share allotted to the general public has been floated in the market and after completion of 3 years from the date it has registered in the stock exchange. But before the disposal of such shares it is mandatory to get approval from NRB. The share allotted to general public has to be issued and sold within 3 years from the date the bank cannot issue bonus shares or declare and distribute dividends, shareholders of the promoters from the same institutions.

**ix. Branch Expansion**

The commercial banks established in national level will initially be authorized to open a main branch office in Kathmandu valley. They will be authorized to open one more branch in Kathmandu valley only after they have opened two branches outside the Kathmandu valley.

**x. Disqualify from Becoming Director**

An individual who is already serving as a director in one of the bank of financial institutions licensed by NRB cannot be considered eligible to become the director in other banks or financial institutions. Also, stock brokers, market makers and also an individuals and institution involved as an auditor of the bank and institutions carrying on financial transactions cannot be a director (Economic Survey, 2002/03).

## 2.4 Directives Issued by NRB

The banks and financial institutions that are governed by BAFIA has to follow the rules and regulation as specified in the Act and also has to follow the directivities issued by NRB from time to time. On the basis of the authority given by BAFIA, NRB has issued directive from time to time as follows:

**Capital Fund**

The A, B and C class financial institutions are required to maintain minimum capital fund at the ratio of 6 percent and 12 percent of their core capital and capital fund respectively. But as for the D class financial institutions they are required to maintain capital fund at the ratio of 4 percent and 8 percent of their core capital and capital fund respectively.

**Loan Classification**

The loan of the licensed financial institution has been classified into the following heading: pass, substandard, doubtful and loss. Those loans that are not passed due or have passed due for a period up to three months come under the pass category, more than three months up to six months come under substandard category, more than six

months up to one year come under doubtful category and past due for a period more than one year come under loss category.

**Loan Loss Provisioning**

The loan loss provision for the non-insured loan has to be made by the licensed financial institution at the rate of one percent for the loans that fall under pass category, 25 percent for substandard category, 50 percent that fall under doubtful category and 100 percent for loss category. In the case of insured loan the provision is 25 percent less than the noninsured loan. Accordingly, 0.25 percent for the loans that fall under for the pass category, 6.25 percent for substandard category, 12.50 percent for doubtful category and 25 percent loan loss provision for those non-banking assets acquired by the licensed financial institutions up to the FY 2002/03 which has not been disposed for a period of three years has to make provision for the FY 2003/04 at the rate of 33.33 percent, for FY 2004/05 at the rate of 66.67 percent and FY 2005/06 at the rate of 100.00 percent. In case of non-banking assets acquired during FY 2003/04 and thereafter, the provision for loss is 50 percent, 75 percent and 100 percent for the first, second and third year respectively.

**Credit Limit**

The loan limit or A, B and C class licensed financial institution for the single borrower or the group of related borrower is 25 percent of the core capital and 50 percent of the non-fund based core capital fund. As for the D class licensed financial institution loan to the deprived and low income people can be extended up to the maximum limit of Rs. 60 thousand per group member or individual and Rs. 1.5 million to micro enterprise based on collateral.

**Maintenance of CRR**

The CRR to be maintained in NRB by the A and B class licensed financial institution is 5 percent and as for the C class it is 2 percent of the total deposit liabilities. If the licensed financial institution fails to maintain the liquidity as to the directives then they have to pay penalty at the rate of existing bank rate for the first time, double the bank

rate for the second time and for the third and successive times thereafter three times of the bank rate. As for the D class licensed financial institution the mandatory cash reserve to be maintained is 0.5 percent. Apart from the CRR this category of financial institutions is required to maintain the minimum liquidity ratio at 2.5 percent of deposit liability.

**Branch Offices**

The A, B and C class licensed financial institutions are not allowed to open or close any of their branch offices without the prior approval of NRB. But in case of D class licensed financial institutions; the prior approval of NRB is not a prerequisite. The licensed institutions have to apply in NRB for opening a branch office and NRB will make the final approval only if the licensed institutions have fulfilled all the requirements for opening a branch.

**Interest Rates**

The licensed financial institutions A, B and C class can fix their own interest rates on deposit as well as lending but the rates must be published in due time if there is change in the rates. In case of D class licensed financial institution, they can charge a fix rate of interest on loans and advances. But all the licensed financial institutions must inform all the changes to NRB within seven days of such changes. Further, the interest rate on loans and deposits of A, B and C class licensed financial institution must be published in the papers and as for the D class institutions, the rates may be published in the office board only.

**Mobilization of Financial Resources**

The mobilization of financial resources for different class of licensed institution differs from one another. In case of A class there is no limitation, for B class it is 20 times of its core capital, for C class 15 times of their core capital and for D class 30 times of core capital. Deposit collection by A, B and C class licensed institution can collect institutional deposit only to the extent of 30 percent of total deposit for the FY 2005/06, 25 percent for the FY 2006/07 and thereafter it is fixed at 20 percent. But in case the

deposit collected is more than the authorized limited then by FY 2005/06 or maturity period, the deposit has to be only up to the prescribed limit. As for borrowing, it depends upon the class and limit of the licensed institution as mentioned above.

## 2.5 Review of Relevant Studies

### 2.6.1 Receive of Books

Banks are such type of institution, which deal in money and substitute for money. They deal with credit and credit instrument. The important thing for the bank is good circulation of credit. Fluctuate flow of credit and weak decision harms the whole economy and the bank as well Good management of credit or credit instrument is very important for banks.

In the word of Gitman and Jochnk, "Investment is any vehicle into which funds can be placed with the expectation that will preserve or increase in value and generate positive return" (Gitman and Jochnk, 1990:21)."

The secret of successful banking is to distribute resources between the various forms of assets in such a way as to get a sound balance between liquidity and profitability so that there is cash (on hand quickly realizable) to meet every claim and at the same time, enough income for the bank to pay its way and earn profit for its shareholders" (M. Radheswami/S.V Vasuderan, 1985: 219).

According to Chales P. Jones, "Investment is the commitment of funds to one or more assets that will be held over some future time period. Investment is concerned with the management of an investor's wealth, which is the sum of certain income and present value of all future income" (Jones, 1999: 33).

According to William. F. Sharpe, Gorden T. Alexander and Jeffery V. Baily, "Investment in it's broaden sense means the sacrifice of current dollars for future dollars. Two different attributes are generally involved: time and risk. The sacrifice

takes place in the present and its magnitude is generally uncertain" (Sharpe, Alexander and Bail, 1998: 1).

In the words of Reed, Cotter, Gill and Smith, "Commercial banks still remain the heart of our financial system holding the deposits of millions of personal, governments and business units. They make funds available through their lending and investing activities to borrowers, individuals, business firms and governments. Commercial banks are the most important type of financial institutions in the nation in terms of aggregate assets" (Reed, Gill, Cotter and Smith, 1980: 5).

According to I.M. Pandey, "Investment decision expenditure and benefits should be measured in cash. In investment analysis, cash flow is more important than accounting profit. It may also be pointed out that investment decision affects the firm's value. The firm's value will increase if investments are profitable and add to the shareholder's wealth. Thus, investment should be evaluated on the basis of criteria, which is compatible with the objectives of the shareholder's fund maximization. An investment will add to the shareholder's wealth if it yields benefit in excess of the minimum benefits as per the opportunity cost of capital" (Pandey, 1999: 407).

"Investment has many factors. It may involve putting money into bonds, treasury bills or note or common stock or painting or real state or mortgage or oil venture or cattle or the theater. It may involve specially in bull markets or selling short in bear market. It may involve options, straddles, rights, warrants, convertibles, margin, gold silver, mutual funds, money market funds, index funds and result in accumulation wealth. Diversity and challenge characterize the field. For the able or lucky, the rewards may be uniformed results can be uniformed results can be disastrous (Ghone, Zinbarg and Zeiked, 1997: 1).

### 2.6.2 Review of Articles and Research Paper

**Chopra, Sunil. (2006)** in his article, *"Role of Foreign Banks in Nepal"* had written that the joint venture banks playing an increasingly dynamic and vital role in the economic development of the country that will undoubtly increase with time.

**Bajracharya, Bodhi B. (2007)** in his article entitled, *"Monetary Policy and Deposit Mobilization in Nepal"* has concluded that the mobilization of domestic saving is one of the monetary policies in Nepal. For this purpose commercial banks stood as the vital and active financial intermediary for generating resources in the form of deposit of the private sector for providing credit to the investor's in different sector for providing credit to the investor's in different aspects of economy" (Bajracharya, 2047: 93-97).

**Sharma, Bhaskar. (2008)** in his article *"Banking the Future Competition"* has mentioned that-due to the lack of investment avenues, banks are tempted to invest without proper credit appraisal and one personal guarantee, whose negative side effect would show colors only after 4 or 5 years; again he mentioned that private commercial banks are have been mushroomed only in urban areas where banking transaction in large volume is possible. The rural and suburban areas mostly remain unattended too. This is likely to prevail till completion takes its full rein in the urban areas" (Sharma, 2002: 13).

**Pradhan, Shekhar Bahadur. (2009)** in his article *"Deposit Mobilization, its problem and prospects"* has presented that deposit is the life blood of every financial institutions, be it commercial bank, finance company cooperative or non government organization. He further adds in consideration of most of banks and finance company, the latest figure does produce a strong feeling that a serious review must be made of problems and prospects of deposit sectors. Leaving few joint ventures banks, other organizations rely nearly on the business deposit and credit disbursement.

Pradhan has highlighted following problems of deposit mobilization in Nepalese context.

- Most of the Nepalese people do not go for saving in institutional manner due to the lack of good knowledge. Their reluctance to deal with institutional system is generated by the lower level of understanding about financial organization process, withdrawn system, and availability of depositing facilities and so on.
- Unavailability of the institutional services in rural areas.

- Due to lesser office house of banking system people prefer holding the cash in the personal possession.
- No more mobilization and improvement of the employment of deposits and the loan sectors

He has also recommended for the prosperity of deposit mobilization which are as follows:

- By providing sufficient institutional in the rural areas.
- By cultivating the habit of using rural banking unit.
- By adding service hour system to bank.
- Nepal Rastra Bank should also organize training program to develop skilled manpower.
- By spreading co-operatives to the rural areas to develop mini branch services (Pradhan, 2053: 13).

**Shrestha, Sunity. (2010)** in her article *"Financial Performance of Commercial Banks"* has analyzed the following points.

- The structural ratio of commercial banks shows that banks invest on the average 75% of their total deposit on the government securities and the shares.
- Return ratio of all the banks shows that most of the time the foreign banks have higher return as well higher risk then Nepalese banks.
- The debt ratios of commercial banks are more than 100% in most of the time period under study period. It leads to conclude that the commercial banks are highly leveraged and highly risky.
- The foreign banks have comparatively higher total management achievement index (Shrestha, 1997: 23-27).

According to a report published in the magazine the Boss.

The financial sector has evolved as the biggest sector in the economy. There are altogether 128 financial institutions (excluding Nepal Rastra Bank, micro financial institutions and cooperative registered with cooperative board) in the country and currently more than 20,000 people employed in this sector. This human resources is

responsible for managing approximately NPR 221 bn worth of assets (primarily loans and advances) out of which 50% comprises of two large banks of Rastriya Banijya Bank and Nepal Bank Ltd. annual net profit of NPR 5.89 be generated by creating assets worth of NPR 221 be last year means a very low return on assets (mere 2.21 percent, which is even below the average savings deposit in the country.

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

### 2.6.3 Review of Previous Thesis

Before this study, various students regarding various aspects of commercial banks and joint venture commercial banks such as investment policy, lending policy financial performance, interest rate structure etc., have conducted several thesis works. Some of them, as supposed to relevant for the study are presented below.

**Khadka, Raja Ram.** (2003) on his study, *"A study on the investment policy of Nepal Arab Bank Ltd."* (NBIL) compared NABIL with that of Nepal Grindlays Bank Ltd. (NGBL) and Nepal Indosuez Bank Ltd. (NIBL) the main objectives of the study were to evaluate the liquidity assets management efficiency and profitability positions in related to fund mobilization of NABIL in comparison to other joint venture banks (JVBs)

**His Main Objectives:**

- To evaluate the liquidity, assets management efficiency and profitability position in relation to fund mobilization of NABIL Bank Ltd. in the comparison of other joint venture banks.

- To discuss fund mobilization of NABIL Bank Ltd. in respect to its based off-balance sheet transactions and based on balance-sheet transactions in comparison of other joint venture banks (JVBs).
- To evaluate the growth ratio of loans and advances and total investment with respective growth rate of total deposit and net profit of NABIL Bank Ltd. in comparison to other JVBs.
- To find out the relationship between total deposit and total investment, total and total loan and advances, and net profit and outside assets of NABIL Bank in the comparison to other JVBs.

**His Major Findings:**

- The liquidity position of NABIL Bank Ltd. is comparatively worse than that of other JVBs. NABIL Bank has more portions of current assets as loans and advances but less portion of investment on government securities.
- NABIL Bank is comparatively less successful in on-balance-sheet operation as well as off-balance sheet operation than that of other JVBs.
- There is significant relationship between deposit and loan advances as well as outside assets and net profit but not between deposit and total investment in case of both NABIL Bank Ltd. and other JVBs.
- Profitability position of NABIL Bank Ltd. is not better than that of other JVBs.
- NABIL Bank is more successful in deposit mobilization but failure to mountain high growth rate of profit in comparison to other JVBs (Khadka, 1998).

**Tuladhar, Upendra. (2004)** has conducted a study on, *"A study on investment policy of Nepal Grindlays Bank Ltd."* In the comparison to other joint venture banks of Nepal".

**His Main Objectives:**

- To study the fund mobilization and investment policy with respect to fee-based off-balance sheet transactions.
- To evaluate the growth ratios of loan and advances and investment with respective growth rate of total deposit and net profit.

- To study the liquidity, efficiency of assets management and profitability position.
- To perform an empirical study of the customer's views and ideas regarding the existing services and adopted investment policy of the joint venture banks.

**His Major Findings:**

- Nepal Grindlays Bank Ltd. (NGBL) has maintained consistent and successful liquidity than NABIL Abk and Himalayan Bank Ltd.(HBL).
- The mean of total investment to total deposit ratio of Nepal Grindlays Bank Ltd. is higher than the other JVBs. The mean of the loan and advance to total deposit ratio of Nepal Grindlays BankLtd. is less and inconsistent than NABIL and HBL.
- Loan and advances to working fund ratio of other banks. Investment on government securities to working fund ratio of NGBI had the highest mean ratio than NABIL Bank Ltd. And Himalayan Bank Ltd. during the study period.
- It was found that total off-balance sheet operation to loan and advance ratio of NGBL is found to be the higher mean ratio than that of NABIL and HBL. It means NGBL used to perform the highest off-balance sheet operation than NABIL and HBL i.e. used to give priority to provide letter of credit, guarantee and others (e.g. trade finance) excessively than to others.
- The profitability position of NGBL is higher than NABIL Bank and HBL as well as it used provide interest to the customers for different activities consistently.
- The volume of growth ratio of loan and advances of NGBL is found higher than that of NABIL Bank Ltd. and lower than HBL. It indicates that all the JVBs used to provide loan and advances in increasing manner.
- The higher ratio of net profit of NGBL seemed to be more satisfactory than NABIL Bank Ltd. but in case of HBL it seemed to be very high (Tuladhar, 2000).

**Shahi , Prem Bahadur. (2006)** conducted a study on *"Investment policy of commercial banks in Nepal"*

**His Main Objectives:**

- To evaluate the liquidity, asset management efficiency and the profitability and risk position of Nepal Bank Limited to the joint venture banks.
- To discuss fund mobilization and investment policy of Nepal Bank Limited in aspect to its fee based off-balance sheet transaction and fund based on-balance sheet transaction in comparison to the joint venture banks.
- There is comparatively higher risk in Nepal Bank Limited than that of the JVBs regarding various aspects of the banking function.
- From the analysis of different growth ratios it can be concluded that Nepal Bank Limited has not been more successful to increase its sources of funds i.e., deposits and mobilization of it, i.e. loan and advances and total investment. Similarly, it seems to have failed to maintain high growth rate of profit in comparison to that of other JVBs.
- It has been found that there is significant relationship between deposits and loan and advances. There is negative relationship between deposits and investment in case of Nepal Bank Limited and positive in case of the JVBs.
- Nepal Bank Limited has higher trend analysis values of loan and advances and deposit, but lower trend values of net profit and total investment in comparison to the JVBs for next 5 years.
- Highly fluctuating ratios of Nepal Bank Limited show that it has not formulated any stable policy to maintain its liquidity in a consistent manner.
- High portion of cash and bank balance in Nepal Bank Limited shows its negligence and inefficiency in its best utilization. It has not considered the cost of fund and its opportunity costs.
- Higher percentage of loan loss relations shows that Nepal Bank Limited is weak in credit collection. There is absence of a sound credit collection policy. Nepal Bank Limited has not followed innovative appraisal, improper collateral

evaluation, irregular supervision, etc. is a severe problem for the bank's success (Shahi, 1999).

**Ojha, Lila Prasad. (2007)** conducted a study on *"Lending Practices: A Study of NABIL Bank Ltd., Standard Chartered Bank Nepal Ltd. and Himalayan Bank Ltd."*

**His Main Objectives:**

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

**His Major Findings:**

- The measurement of liquidity has revealed that the mean current ratio of all the three banks is not widely varied. All of them are capable in discharging their current liability by current asset.
- The measurement of lending strength in relative terms has revealed that the total liability to total assets of SCBL has the highest ratio. the high ratio is the result of high volume of shareholder equality in the liability mix. Himalayan Bank Ltd. has high volume of saving and fixed deposits as compared to current deposit resulting into low ratio of non-interest bearing deposits to total deposits ratio compared to the combined mean.
- Grindlays Bank Ltd. used to perform highest off-balance sheet operation than the other two JVBs i.e., used to give priority to provide letter of credit, guarantee and others (e.g. trade finance) excessively than to others.

- The man of investment on shares and debentures to total working fund ration of Nepal Grindlayts Bank Ltd. was found less than NABIL Bank Ltd. but higher than Himalayan Bank Ltd.
- The profitability position of Nepal Grindlays Bank Ltd. is higher than NABIL Bank Ltd. and Himalayan Bank Ltd. as well as it use to provide interest to the customers for different activities consistently.
- The volume of growth ratio of loan and advances of Nepal Grindlays Bank Ltd. is found higher than that of NABIL Bank Ltd. but lower than Himalayan Bank Ltd. It indicates that all the JVBs used to provide loan and advances in increasing manner.
- From the analysis of growth ratio of total investment it is found that Nepal Grindlays Bank Ltd. and NABIL Bank Ltd. Have negative growth ratio i.e., they used to reduce the investment during the study period. But it is increasing in the case of Himalayan Bank Ltd.
- The growth ratio of net profit of Nepal Grindlays Bank Ltd. Seemed to be more satisfactory than NABIL Bank Ltd. but increase of Himalayan Bank Ltd. it seemed to be very high (Ojha, 2002).

**Acharaya, Akur. (2008)** has conducted a study on *"Investment policy analysis of commercial bank: a comparative study of NIBL with EBL and NABIL bank"*

**His Main Objectives:**

- To evaluate the liquidity, profitability, risk position and assets management of the sample banks.
- To evaluate and discuss the investment policy and fund mobilization of NIBL, EBL and NABIL.
- To show the relationship between deposit and investment trends of the bank.

**Conclusion from his study:**

- Liquidity position of NIBL is comparatively average than NABIL and EBL.

- Assets management ratio of NIBL occupies the average position in comparison with other two banks NABIL and EBL.
- NIBL is successful in utilization its overall working fund on profit generating activity than the NABIL and EBL. But return from loan and advances ratio is comparatively average, in this EBL has taken best position.
- From the study of capital risk ratio and credit risk ratio of all three banks comparatively NIBL is successful to attract the deposits and inter banks fund, and utilize its loan and advances form total assets in safest way by taking high risk, which helps to increase the level of profit and maximizing the value of the firm.

**Yadav, Bijaya. (2009)** conducted a study on "A *Study on Comparative Financial Performance of Joint Venture banks in Nepal".*

**His Main Objectives:**

- To find out comparative and competitive position of two JVBs banks.
- To rank the Nabila and NBBL in terms of financial operational profitability, productivity position.
- To show the trend of total deposits, investments, total income, total expenses and total net income.
- Measuring financial risk of Nabila and NBBL.
- To Provide package of recommendation and possible guidelines to improve banking business based on the findings of the study.

**His Major Findings:**

- Capital structure ratios of both banks are low. Debt portion is more used in NBBL but profitability position in lower than Nabila.
- Both banks should be developed separately research and training department so they would be able to study different aspect of management and supply practical suggestion to develop as an innovative approach in bank management and bank operation.

- The trend of total deposits, total investment, total expenses, total net income, interest expenses and Interest earning of NBBL is exceptionally higher than Nabil.
- NBBL is more risky bank. Researchers recommended that portfolio situation should be carefully examined from time to time. The varied rate of return should be verified in such a way that balances the conflicting goal of maximum yield and minimum risk.
- it should be careful in increasing profit in real sense to maintain the confidence of shareholders, depositors and its customers. Comparatively Nabila profitability position better than NBBL.

**Thapa, Sadiksha. (2010)** has conducted a research entitled "*Investment Policy of Commercial Banks in Nepal*".

**Her Main Objectives:**

- To evaluate liquidity, activity and profitability ratios of RBB in comparison with NBL and industry average.
- To analyze the relationship of loan and total investments with total deposit and net profit of RBB and to compare it with that of NBL and industry average.
- To use trend analysis to compare loan and advance, total investment, total deposit and net profit of RBB and compare the same with other two.
- To examine the loan loss provision of RBB and NBL.
- To provide suggestion and recommendation on the basis of findings.

**Her Major Findings:**

- RBB ha good deposit collecting, enough loan and advance and investment in government securities. It has comparatively better liquidity position than NBL.
- RBB and advance is in comparatively better position regarding issue of loan and advance but it does not have good position in regarding investment in shares and debentures of other companies, off balance sheet operation. Loan loss ratio shows low quality of loan and advance.

- The profitability position of RBB and advance is worse. RBB and advance needs to take immediate steps to increase its profitability.

There is significant relationship between deposit and loan and advance. There is insignificant relationship between deposit and investment, and outside assets and net profit.

# CHAPTER – III

# RESEARCH METHODOLOGY

## 3.1 Introduction

In the last two chapters, general background of joint venture banks has been highlighted and review of literature with possible review of relevant books, articles, thesis, and research findings has also been discussed. This has equipped me with the inputs necessary for my study and helped me to make choice of research methodology to support my study in realistic terms with sound empirical analysis.

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

The concise Oxford Dictionary defines research as "A systematic investigation into and study of materials source etc. in order to establish facts and reach new conclusion."

## 3.2 Research Design

"A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure" (Kothari, 1989: 3). Research design basically involves the following:

- Clarified data collection method.
- Defines the measurement approach.
- Defines the object to be measured.
- Clearly defines the way in which the data are to be analyzed.

In this way, research design is the plan, structure and strategy of investigations conceives to control variances. It is arrangement of conditions for collection and analysis of data. It is also on outline of the scheme to be used to gather and analyze the

data. To achieve objective of this study, descriptive and analytical research design has been used. Several financial and statistical tools have been applied to examine facts and descriptive, techniques have been adopted to evaluate investment practice of joint venture banks.

## 3.3 Population and Sample

There are total 31 commercial banks in Nepal listed in Nepal stock exchange. Out of these banks only two joint venture banks. SCBL & NSBI have been selected for research and their data related to investment practice are comparatively studied.

## 3.4 Nature and Sources of Data

The study is based on secondary data. The data and information have been collected from different sources. The sources of data and information used in this study are as follows:

- Annual reports
- Authorized websites
- Previous research, Thesis and case studies
- Journals and Article
- Related Books
- Primary data has also been used especially questionnaire which is written in details in Annex.

Primary data is a data which has not been used by others. Collected fresh data is primary data. It can be prepared by different sources like opinion poll, sampling, through correspondents etc. (Sharma, 2003: 17)

Secondary sources refer to those for already gathered by others. The sources of secondary data can be divided into two groups: Internal and External. The internal secondary data are found within the company. Sources of such data include sales information, accounting data and internally generated reports. External secondary data are collected from sources outside the company. Such sources may include books,

periodicals, published reports, data services, and computer data bank (Wolf and Pant, 2004: 194).

## 3.5 Method of Analysis

To achieve the objectives of the study, various financial, statistical and accounting tools have been used in this study. The analysis of data will be done according to pattern of data available. Because of limited time and resources, simple analytical statistical tools such as graph, percentage, Karl Pearson's Coefficient of Correlation and the method of least square have been adopted in this study. Similarly some financial tools such as ratio analysis and trend analysis have also been used for financial analysis.

The various calculated result obtained through financial, accounting and statistical tools are tabulated under different heading. Then, they are compared with each other to interpret the result. The tools are as follows:

### 3.5.1 Financial Tools

Financial tools help to identify and analyze the financial strength and weakness of the organization presenting the relationship between the items of balance sheet. For the purpose of this study, ratio analysis has been mainly used and with the help of it, data have been analyzed.

Ratio analysis is a technique of analysis and interpretation of financial statement through mathematical expression. It may be defined as mathematical expression of the relationship between two accounting figures. To evaluate the different performances of an organization by creating the ratios from the figures of different accounts is termed as ratio analysis. In short, ratio analysis can be defined as an analysis of financial statement with the help of ratios.

**A. Liquidity Ratio**

Liquidity ratio measures the ability of the firm to meet current obligations. It reflects the short-term financial strength of the business.

**i. Cash and Bank Balance to Total Deposit Ratio**

Cash and bank balance are the most liquid current assets of a firm, cash and bank balance to total deposit ratio measures the percentage of most liquid assets to pay depositors immediately. Cash and bank balance includes cash on hand, foreign cash on hand, cheques and other cash items balance with bank. The total deposit consists of current deposits, saving deposits, fixed deposits, money at call and short notice and other deposits. This ratio computed by dividing cash and bank balance by total deposit. This can be stated as :

$$\text{Total deposit ratio} = \frac{Cash\ and\ bank\ balance}{Total\ deposit}$$

**ii. Cash and Bank Balance to Current Assets Ratio**

This ratio measures the percentage of liquid assets i.e. cash and bank balance among the current assets of a firm. Higher ratio shows the higher capacity of firms to meet the cash demand. This ratio be stated as follows:

$$\text{Cash and bank balance to current assets ratio} = \frac{Cash\ and\ bank\ balance}{Current\ Assets\ Ratio}$$

**iii. Investment on Government Securities to Current Assets**

This ratio used to find the percentage of current assets invested in government securities, treasury bills and development bonds. This ratio can be calculated by dividing the amount of investment on government securities by the total amount of current. It can be stated as follows:

Investment on Government Securities to Current assets ratio

$$= \frac{investment\ on\ Goverment\ Securities}{Current\ Assets}$$

**iv. Loan and Advance to Current Assets Ratio**

Loan is major earning source of bank. Lion are also taken as current assets as most of them are matured within a period of one year and represent short-term disbursement. A bank should not allocate all funds in loan and advances to total current assets, this is obtained by dividing loan and advances by current assets.

Loan and advances to current assets ratio = $\frac{Loan\ and\ Advance\ to\ Current\ Assets}{Current\ Assets}$

**B. Assets Management Ratios (Activity Ratios)**

Assets management or activity ratios are used to evaluate the efficiency with which the firm manages and utilize their available resources. The following ratios are used under assets management ratio.

**i) Total Investment to Total Deposit Ratio**

This ratio indicates how properly firms' deposits have been invested on government securities, on debenture and bonds, and on shares debentures of other companies. This ratio can be calculated by dividing total amount of investment by total amount of deposit collection. It can be stated as following:

Total investment to Total deposit ratio = $\frac{Total\ Investment}{Total\ Deposit}$

**ii) Loan and Advances to Total Deposit Ratio**

This ratio is used to find out how successfully the banks and finance companies are utilizing their total collections/deposits on loan and advances for the purpose of earning profit. It can be stated as:

Loan and advances to total deposits ratio = $\frac{loan\ and\ advances}{Total\ Deposit}$

**iii) Loan and Advance to Total working Found Ratio**

This ratio indicates the ability of banks and finance companies in terms of earning high profit from loan and advances. Total amount of assets given on balance sheet which refers to current assets, net fixed assets, loans for development banks and other miscellaneous assets but excludes off-balance sheet items like letter of credit, letter of guarantee etc. This ratio can be states as:

Loan and advances to total working fund ratio = $\frac{Loan\ and\ Advance}{Total\ Working\ Fund}$

**iv) Investment of Government Securities to Working Fund Ratio**

Investment of government securities to working fund ratio indicates how much part of total investment is there on government securities in percentage. It can be stated as:

Investment of Govt. Securities to total working fund ratio

$$= \frac{Investment\ on\ Govt.Securties}{Total\ Working\ Fund}$$

**v) Investment on Shares and Debentures to Total Working fund Ratio**

This ratio shows the investment of Banks and Finance companies on the shares and debentures of other companies. It can be calculated by dividing investment on shares and debentures by total working fund. This can be stated as:

Investment on shares and debenture to total working fund ratio

$$= \frac{Investment\ on\ Shares\ and\ Debentures}{The\ Working\ Found}$$

**C. Profitability Ratios**

Profitability ratios are very important to measure the overall efficiency of operations of 'firm'. It is true indictor of the financial performance of each and every business organization. The following ratios are taken under this heading.

**i) Return on Total Working Fund Ratio**

This ratio establishes the relationship between net profit and total working fund. The net profit indicates the part of income left to the internal equities after all costs charges, expenses have been deducted. It can be stated as:

Return on total working fund ratio = $\frac{Net\ Profit}{Total\ Working\ Fund}$

**ii) Total Interest Earned to Total Working Fund Ratio**

This ratio shows the relationship between total interest earned and total working fund. This ratio measures the percentage of total to assets A high ratio indicates the better performance of the bank. This ratio is calculated by dividing total interest earned from investment by total working fund. It can be stated as:

Total interest earned to total working fund ratio = $\frac{Total\ Intrest\ Earned}{Total\ Working\ Fund}$

**iii. Total Interest Paid to Total Working Fund Ratio**

This ratio measures the percentage of total interest expenses against total working fund. A ratio indicates higher interest expenses on total working fund and vice-versa. This ratio is calculated by dividing total interest paid by total working fund. It can be stated as:

Total interest paid to total working fund ratio = $\frac{Total\ intrest\ Paid}{Total\ Working\ Fund}$

**iv) Return on Loan and Advance Ratio**

Return on Loan and Advance Ratio shows how efficiently the banks and finance companies have utilized their resources to earn good return by providing loan and advances. This ratio is computed by dividing net profit/loss by total amount of loan and advances. It can be stated as:

Return on loan and advances ratio = $\frac{Net\ Profit\ and\ Loss}{Total\ Loan\ and\ Advance}$

**D. Risk Ratios**

Risk taking is the prime factor of business transaction of investment management. If a firm bears risk, it increases the effectiveness and profitability of them. These ratios indicate the amount of risk associated with various financial operations.

The following ratios are used under this topic to :

**i. Credit Risk Ratio**

This ratio helps to measure the possibility of loan non repayment or the possibility of loan to go into default. Such ratio is calculated in percentage by dividing total loan and advances by total assets. It can be stated as:

Credit risk ratio =$\frac{Total\ Investment+Total\ Loan\ and\ Advance}{Total\ Assets}$

**ii. Liquidity Risk Ratio**

The cash and bank balance are the most liquid assets and they are considered as banks liquidity source and deposit as the liquidity needs. Cash and bank balance to total deposit ratio is indicator of bank's liquidity need. This ratio is low if funds are kept idle as cash and bank balance but this reduces profitability when the banks provide loan its profitability as well as risk increases. In this way, higher liquidity ratio indicates less profitable return and vice-versa. This ratio is calculated by dividing cash and bank balance to total deposit. It can be stated as:

Liquidity risk ratio $= \frac{Cash\ and\ Balance}{Totl\ Deposit}$

**E. Growth Ratio**

This ratio indicates how properly the banks are maintained their economic and financial condition. Growth ratios are related to fund mobilization and investment management of bank. Higher ratios represent the better performance of selected banks. Following growth ratios are calculated under this:

i. Growth Ratio of Total Deposit
ii. Growth Ratio of Total Investment
iii. Growth Ratio of Net Profit
iv. Growth Ratio of Loan and Advance

**3.5.2 Statistical Tools**

Some important statistical tools have been used to achieve the objectives of this study. They are as follows:

i. Arithmetic Mean (A.M.)
ii. Standard Deviation (S.D.)
iii. Coefficient and Regression (C.V.)
iv. Correlation and Regression Analysis and Probable Error (P.E.)
v. Trend Analysis
vi. Test of Hypothesis

**i. Arithmetic Mean (A.M.)**

The sum of all the observations divided by the number of observations is called arithmetic mean. The arithmetic mean is usually denoted by ($\overline{X}$). It is calculated by using the following formula.

Arithmetic mean (AM) is given by, $\overline{X} = \frac{\sum X}{n}$

Where,

$\overline{X}$ = Arithmetic Mean

Sum of all the values of the variable =$\sum$X

n = Number of observations

**ii. Standard Deviation (S.D.)**

The standard deviation is defined as the positive square root of the arithmetic mean of the square deviation from their arithmetic mean of a set of values. It is denoted by the Greek letter 6 (small sigma) A small standard deviation means a high degree of uniformity of the observations as well as homogeneity of a serious, a large standard deviation means just opposite. It is calculated by using the following formula.

Standard Deviation ($\sigma$) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$

Where,

n-1 = No of observation in Series X

$\sum(X-x)^2$ = Summation of square of deviation from mean value

**iii. Coefficient and Regression (C.V.)**

The coefficient of variation is the most commonly used measure of relative variation. It is used in such problems where the researcher wants to compare the variability of more than two years. A distribution having less C.V. is said to be less variable or more homogenous or more equitable than other. A distribution having greater C.V. is said to be more variable of more heterogeneous or less consistent of less uniform of less stable or less equitable than other. It can be calculated as following formula.

C.V = $\frac{\sigma}{\overline{X}} \times 100\%$

Where, σ = Standard Deviation

$\overline{X}$ = Arithmetic Mean

**iv. Correlation and Regression Analysis and Probable Error (P.E.)**

This statistical tool is used to analyze, identify and interpret the relationship between two or more variable. It interprets the relationship between two or more variable are correlated positively or negatively. This statistical tool helps to take several decisions. For the purpose of decision making interpretation is based on following term.

$$r = \frac{n\sum xy - \sum x.\sum y}{\sqrt{N\sum x2 - (\sum x)2}\sqrt{N\sum y2 - (\sum y)2}}$$

Where, correlation coefficient always lies between $\mp 1$

When r = 1, there is perfect positive correlation.

When r = -1, there is perfect negative correlation.

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

When r lies between 0.5 to 0.699 there is moderate degree of correlation.

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

Following formula is used to calculate Karl Pearson's coefficient of correlation.

Karl Pearson's coefficient of correlation has been used to find out the relationship between the following variables

a. Coefficient of correlation between loan and advances and net profit.

b. Coefficient of correlation between deposit and loan and advances.

c. Coefficient of correlation between deposit ant total investments.

**v. Probable Error (P.E.)**

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

$$P.E. = 0.6745 \frac{1-r2}{\sqrt{n}}$$

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

i) If r< P.E., it is significant. So, perhaps there is no evidence of correlation.

ii) If r>6P.E, it is significant.

**vi. Trend Analysis**

Trend analysis is statistical tool which compares financial ratios over a period of time. it gives an indication of the direction of change and reflects whether the firm's financial performance has improved, deteriorated or remain constant over time. This statistical tool has been used to interpret the trend of deposits, loan and advance, investments and net profit of banks from.

The future trend is forecasted by using the following formula:

yc = a + bx

Where,

Yc is used to designate the trend values to distinguish them from the Actual y values.

'a' is the y intercept or the computed trend figure of the Y

Variable when x = 0. 'b' represents the slope of the trend line or the amount Y

Variable that is associated with a change of one unit in X variable. The X variable

Trend analysis represents the time.

# CHAPTER – IV

# DATA PRESENTATION AND ANALYSIS

This is analytical chapter where those major financial items are analyzed and evaluation which affect the investment management and fund mobilization of the joint venture banks in the comparison of each other.

## 4.1 Financial Ratio

Financial analysis is act of identify the financial strength and weakness of the organization presenting the relationship between the items of balance sheet. For the purpose of this study ratio analysis has mainly been used and with the help of it, data have been analyzed. Various finical ratios concerned to the invest management and the fund mobilization are presented and discussed to evaluate and analyze the performance of the other. It is not able that only some important financial ratios are calculated from the view point of fund mobilization and investment management (Investment Practice).
The following ratios have been calculated under this topic.

1. Liquidity Ratio
2. Assets Management Ratio
3. Profitability Ratio
4. Risk Ratio
5. Growth Ratio

### 4.1.1 Liquidity Ratio

Liquidity ratio measures the capacity of the firms to meet its current organization. This ratio also presents the liquidity position. This ratio also presents the liquidity position of the firm. Commercial banks must maintain its satisfactory liquidity position to meet the credit need of communality demand for deposit withdraws, pay maturity in time etc. without loss to bank. The following ratios have been studied under this topic.

i. Cash and bank balance to total deposit ratio.
ii. Cash and bank balance to current assets ratio.

iii. Investment in government securities to current assets ratio.

iv. Loan and advance to current assets ratio.

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

Cash and bank balance to total deposit ratio measures the availability of a banks highly liquid or immediate funds to meet unanticipated calls on all types of deposits. Cash and bank balance are assets that constitute the bank's first line of defense and consist of cash on hand, foreign cash on hand cherub and other cash items, balance with domestic banks and balance held of road. A high ratio indicates the greater ability to meet their deposits and vice-versa. Moreover, too high ratio is unfit as capital will be tied up and opportunity cost will be higher.

We have,

Total deposit ratio = $\frac{Cash\ and\ bank\ balance}{Total\ deposit}$

**Table no. 4.1**

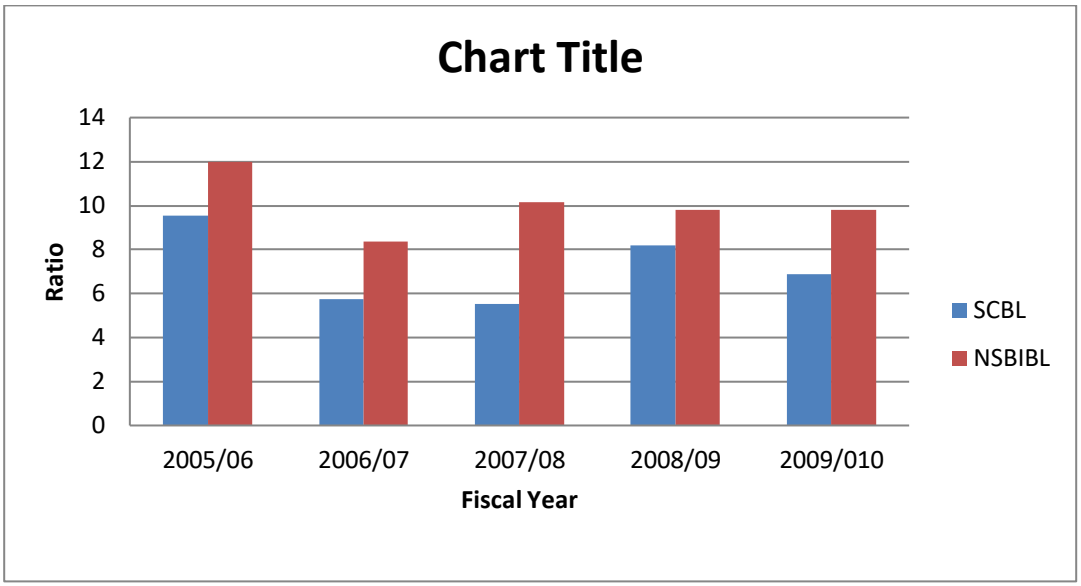
**Cash and Bank Balance to Total Deposit Ratio**

| **Fiscal Year** | **SCBL** | **NSBIBL** |
|---|---|---|
| 2005/06 | 9.56 | 12 |
| 2006/07 | 5.75 | 8.36 |
| 2007/08 | 5.53 | 10.16 |
| 2008/09 | 8.2 | 9.81 |
| 2009/010 | 6.89 | 9.79 |
| Mean | 7.19 | 10.24 |
| S.D | 1.70 | 1.30 |
| C.V | 23.64 | 12.97 |

**Source: Appendix-I (a)**

**Figure no: 4.1**

**Cash and Bank Balance to Total Deposit Ratio**




From the above Table No. 4.1, reveals that the cash and bank balance to total deposit ratios of all two banks due fluctuating trend SCBL highest ratio is 9.56 percent in FY 2005/06 and lowest ratio is 5.53 percent in FY 2007/08. Similarly in the case of NSBIBL, highest ratio is 12 percent in FY 2005/06 and lowest ratio is 8.36 percent in FY 2006/07. In case of overage, it is found that cash and bank balance to total deposit of SCBL has lowest than that of NSBIBL where, the means of SCBL and NSBIBL are 7.19 percent and 10.024 percent respectively. On the basis of coefficient of variances, SBNL is 23.64 percent, which is comparatively higher 12.97 percent of NSBIBL. It shows the current ratio of NSCBL is more stable and consistent than NSBIBL. From the above analysis, NSBIBL has highest ratio. It has better position regarding the meeting of the demand of its customer on their deposit at any time. That means it operates in lower risks. Though, high ratio indicates its ability but very high ratio indicates its ability but high ratio shows the ineffiency, as it has to pay more interest on deposit. Thus, SCBL may invest in more productive sectors like short-term marketable security, treasury bills etc.

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

This ratio examines the banks liquidity capacity on the basis of its most liquid assets i.e. cash and bank balance. This ratio reveals the ability of the bank to make the quick payments to its customer's deposit. A high ratio indicates the sound ability to meet their daily cash requirement of their customer's deposit and vice-versa. Cash and bank balance to current assets ratio or two joint-venture banks and presented below:

We have,

Cash and bank balance to current assets ratio = $\frac{Cash\ and\ bank\ balance}{Current\ Assets\ Ratio}$

**Table no: 4.2**

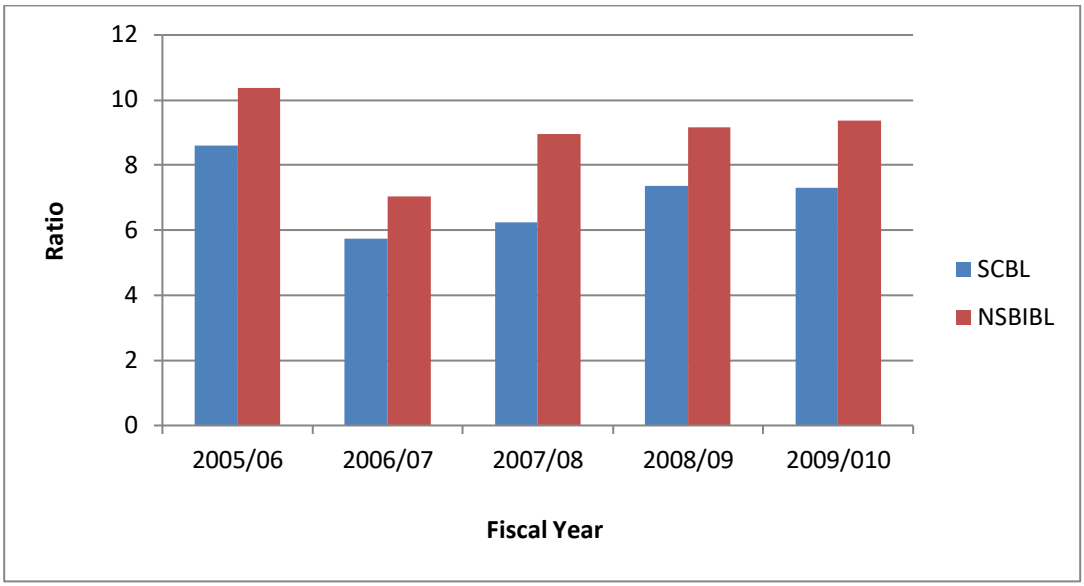
**Cash and Bank Balance to Current Assets Ratio**

| **Fiscal Year** | **SCBL** | **NSBIBL** |
|---|---|---|
| 2005/06 | 8.61 | 10.36 |
| 2006/07 | 5.75 | 7.05 |
| 2007/08 | 6.24 | 8.96 |
| 2008/09 | 7.37 | 9.16 |
| 2009/010 | 7.29 | 9.38 |
| Mean | 7.052 | 8.982 |
| S.D | 1.11 | 1.21 |
| C.V | 15.74 | 13.47 |

**Source: Appendix-I (b)**

**Figure No: 4.2**

**Cash and Bank Balance to Current Assets Ratio**




The above Table No. 4.2 shows the cash and bank balance to current assts ratios of both SCBL and NSBIBL have followed fluctuating trend during the study period. Highest ratios are 8.61 percent in FY 2005/06 and 10.36 percent in FY 2005/06 and lowest ratios are 5.75 percent in FY 2006/07 and 7.05 percent in FY 2006/07 of SCBL and NSBIBL respectively. The above table shows that are two banks have highest and lowest ratio in same FY 2005/06 and 2006/07 respectively. In average, SCBL has lowest ratio 7.05 percent, the 8.96 of NSBIBL. It states that the liquidity position of NSBIBL is better in this regard. The coefficient of variance between the above ratios, of SCBL is 15.74 percent higher than 13.47 percent of NSBIBL. It shows the current ratios of SCBL more stable and consistent than NSBIBL. Comparatively, NSBIL seems to have better position maintaining the cash and bank balance to current ratio. It means that the bank is able to make the quick payment or its deposit.

### 4.1.1.3 Investment in Government Securities to Current Assets Ratio

The major objective of this ratio is to examine that portion of a commercial bank's current assets, which is invested on various government securities issued by government. More or less, each commercial bank is interested to invest their collected

fund on different government securities in different times to utilize their excess funds and or for other purpose. Though the government securities are not so much liquid as cash and bank balance. They can be easily sold in the market or they can be converted into cash in other ways. This ratio shows that how much percentage of it has been occupied by the investment on government securities out of total current assets. The main objective of the commercial banks is maximizing profit.

The governments securities are not give return to investors than other investment sectors, but they are fully secured investment. Government securities issued by government for national economic growth, but commercial banks target to make maximum profit. So commercial banks' invest their excess, fund on government securities for diversification of investment. More fund investment on government securities by the bank is not preferable to achieve the bank's goal. This ratio is calculated by dividing investment on government securities by total current assets.

We have,

Investment on Government Securities to Current assets ratio

$$= \frac{investment\ on\ Goverment\ Securities}{Current\ Assets}$$

**Table No: 4.3**

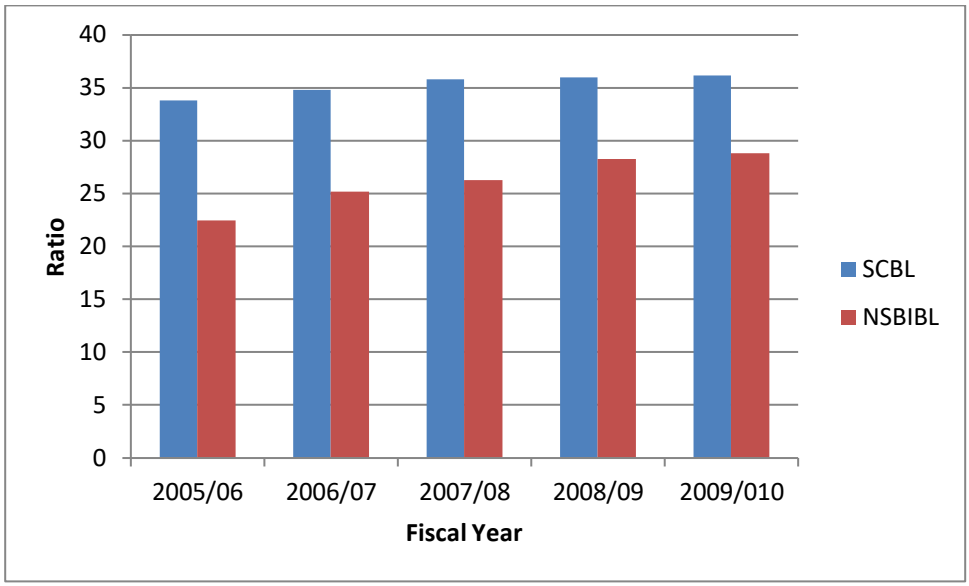
**Investment in Government Securities to Current Assets Ratio**

| **Fiscal Year** | **SCBL** | **NSBIBL** |
|---|---|---|
| 2005/06 | 33.83 | 22.43 |
| 2006/07 | 34.79 | 25.23 |
| 2007/08 | 35.78 | 26.28 |
| 2008/09 | 35.96 | 28.24 |
| 2009/010 | 36.16 | 28.82 |
| Mean | 35.3 | 26.20 |
| S.D | 0.98 | 2.56 |
| C.V | 2.78 | 9.77 |

**Source: Appendix- I(c)**

**Figure No: 4.3**

**Investment in Government Securities to Current Assets Ratio**




The above Table No. 4.3 shows that both banks have invested their funds to government securities throughout the study period. Both banks have followed fluctuating trend during the study period. In case of SCBL and NSBIBL have maintained highest ratios are 36.16 percent in FY 2009/010 and 28.82 percent in FY 2009/010 and lowest ratios are 33.83 percent in FY 2005/06 and 22.43 percent in FY 2005/06 respectively. The comparative table listed above shows that the mean ratio of investment on Government securities to current assets of SCBL is 35.30 percent and higher than of NSBIBL 26.20 percent. It means NSBIBL has not invested it's as much portion of its current assets as other banks and SCBL has more invested it's as much portion of its current assets as other banks. On the other hand, coefficient of variance in ratios on SCBL is lower than that of NSBIBL i.e. 2.78% < 9.77%, which means that the variability of ratios of all the two banks are less homogenous with each other. In conclusion, it can say that NSBIBL has not invested its more portions of current assets as government securities. All the three banks have not been adopting constant policy regarding this ratio. Further, it is concluded that SCBL liquidity position from investment on government securities point of view is much better than that of other banks.

### 4.1.1.4 Loan and Advance to Current Assets Ratio

A commercial bank should not keep its all collected funds as cash and bank balance but they should be invested as loan and advances to the customers to make more profit by mobilizing its fund in the best way. It should pay interest on those unutilized deposit funds and may lose some earnings if a bank cannot be granted sufficient loan and advances. But high loan and advances may also be harmful to keep the bank in most liquid position because they can only be collected at the time of maturity only. Thus banks must maintain its loan and advances in appropriate level. Loan and advances are also included in the current assets of a commercial bank because generally it provides short-term loan, advances, overdrafts and cash credit.

We have,

Loan and advances to current assets ratio = $\frac{Loan\ and\ Advance\ to\ Current\ Assets}{Current\ Assets}$

**Table No: 4.4**

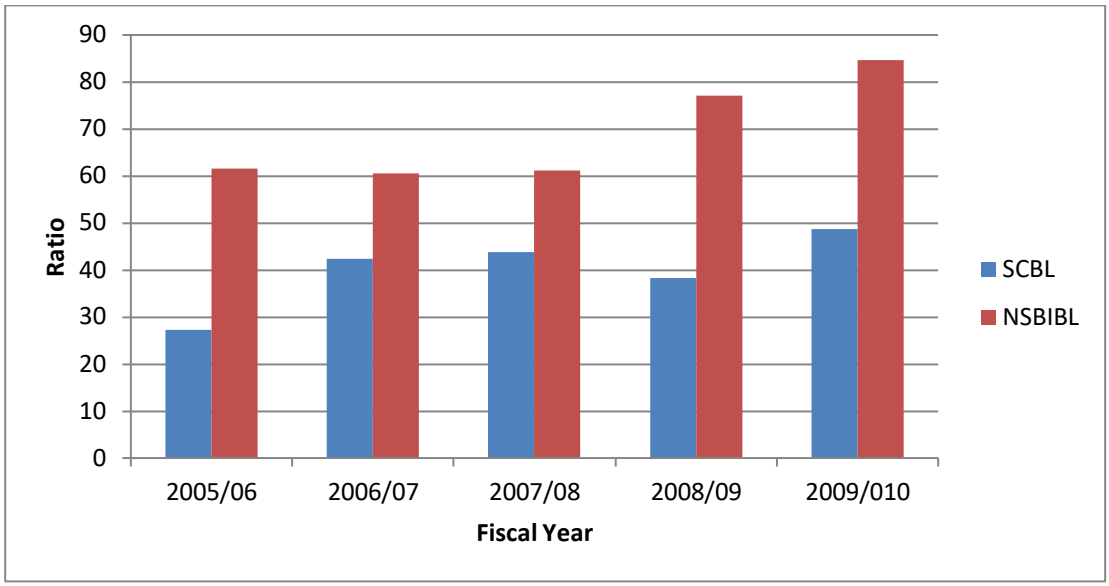
**Loan and Advance to Current Assets Ratio**

| **Fiscal Year** | **SCBL** | **NSBIBL** |
|---|---|---|
| 2005/06 | 27.28 | 61.64 |
| 2006/07 | 42.4 | 60.57 |
| 2007/08 | 43.72 | 61.11 |
| 2008/09 | 38.28 | 77.16 |
| 2009/010 | 48.78 | 84.59 |
| Mean | 40.09 | 60.01 |
| S.D | 8.08 | 11.15 |
| C.V | 20.15 | 18.58 |

**Source: Appendix-I (d)**

**Figure No: 4.4**

**Loan and Advance to Current Assets Ratio**




The above comparative table shows that all the three banks have followed fluctuating trend on their loan and advances to current asses ratios. It is recorded that the highest ratio is 48.78 percent of SCBL in FY 2009/010 and lowest ratio is 27.28 percent of SCBL in FY 2005/06 throughout the study period. In case of NSBIL, it has recorded highest ratio is 2009/010 i.e. 84.59 percent and lowest in 2006/07 i.e. 60.57 percent. While examining the mean ratio NSBIBL has maintained it higher than that of SCBL i.e. 40.09 percent and 60.01 percent. On the other hand, coefficient of variance among ratios of NSBIBL has lower coefficient of variance than that of SCBL i.e. 20.15% > 18.58% of SCBL. It indicates that high consistency of NSBIBL's ratios in comparison of other banks. Finally, it can say that all the three banks are not poor to mobilize their funds as loan and advances with respect to current assets. The mean ratio of loan and advances to current assets of SCBL has higher; it reveals that their liquidity position with regard to this ratio is satisfactory. But NSBIBL has higher ratio of loan and advances to current assets, it indicates that it may be create little problem at the time of to meet its current obligation for its customers.

### 4.1.2 Assets Management Ratio

Asset management ratio measures the efficiency of the bank to manage its assets in profitable and satisfactory manner. A commercial bank must manage its asset properly to make high profit. Under this chapter following ratios are studied.

i. Loan and advances to total deposit ratio.

ii. Total investment to total deposit ratio.

iii. Loan and advances to total working fund ratio.

iv. Investment on government securities to total working fund ratio.

v. Investment on share and debentures to total working fund ratio.

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

This loan and advances to total deposit ratio measures the extent to which the banks are successful to mobilize the total deposits on loan and advances for the purpose of generating profit. A high ratio of loan and advances means better mobilization of collected deposits and vice-versa.

But it should be noted that too high ratio might not be better from its liquidity point of view. This ratio is calculated by dividing loan and advances by total deposit.

We have,

Loan and advances to total deposits ratio = $\frac{loan\ and\ advances}{Total\ Deposit}$

**Table No: 4.5**

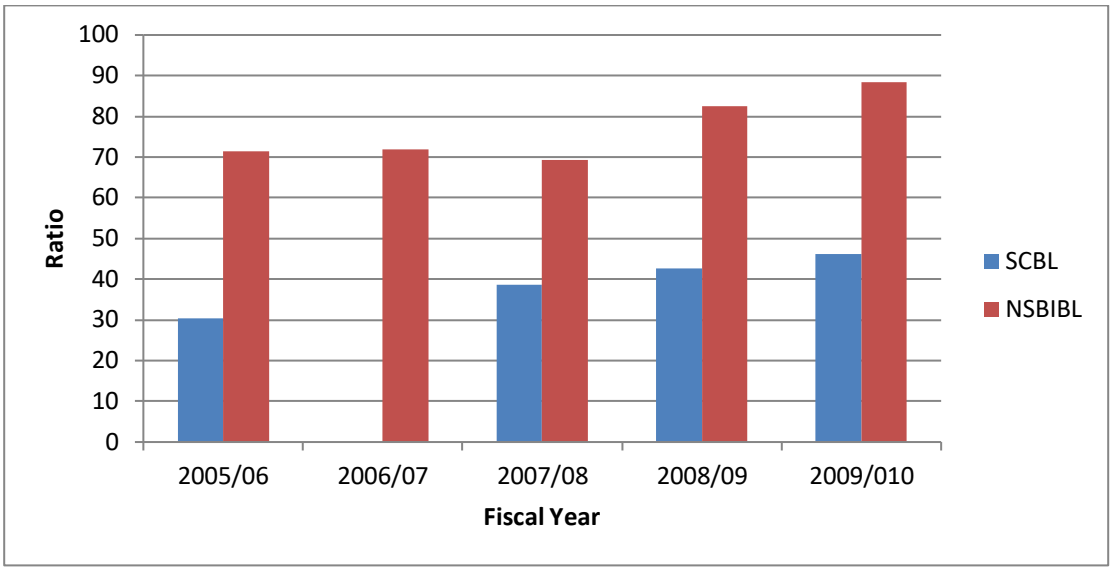
**Loan and Advances to Total Deposit Ratio**

| **Fiscal Year** | **SCBL** | **NSBIBL** |
|---|---|---|
| 2005/06 | 30.29 | 71.46 |
| 2006/07 | 42.`12 | 71.8 |
| 2007/08 | 38.75 | 69.32 |
| 2008/09 | 42.61 | 82.6 |
| 2009/010 | 46.12 | 88.32 |
| Mean | 39.78 | 76.71 |
| S.D | 6.01 | 8.30 |
| C.V | 15.11 | 10.82 |

**Source: Appendix-I (e)**

**Figure No: 4.5**

**Loan and Advances to Total Deposit Ratio**




On the other hand, when mean ratios of loan and advances of all two banks are compared, NSBIBL has higher mean than that of SCBL i.e. 76.71 > 39.78. It indicates that SCBL has not mobilized sufficient fund as loan and advances. The coefficient of variance between the above ratios of SCBL is 15.11 percent, which is comparatively higher than 10.82 Percent of NSBIBL. It shows that the loan and advances of SCBL are more stable and consistent than that of NSCBIBL.

From the above analysis, it can be concluded that NSBIBL has strong position regarding the mobilization of total deposit on loan and advances and acquiring high profit with compare to other two banks. But the high ratio is not better form the point of view of liquidity as the loan and advances are not as liquid as cash and bank balance. SCBL may have utilized high portion of their deposit in various investment or cash and bank balance.

### 4.1.2.2 Total Investment to Total Deposit Ratio

A commercial bank mobilizes its deposit by investing its fund in different securities issued by government and other financial or nonfinancial companies. This ratio measures the extent to which the banks are able to mobilize their deposit on investment

in various securities. A high ratio indicates the success in mobilizing deposit in securities and vice-versa.

Total investment to Total deposit ratio = $\frac{Total\ Investment}{Total\ Deposit}$

**Table No: 4.6**

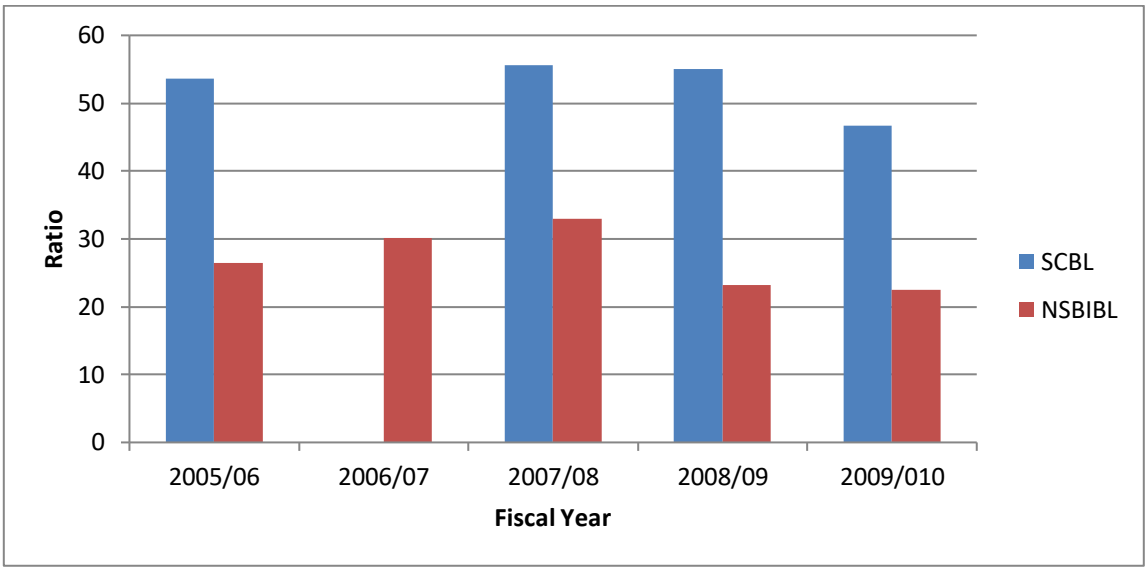
**Total Investment to Total Deposit Ratio**

| **Fiscal Year** | **SCBL** | **NSBIBL** |
|---|---|---|
| 2005/06 | 53.67 | 26.5 |
| 2006/07 | 50.1`3 | 30.13 |
| 2007/08 | 55.67 | 32.91 |
| 2008/09 | 54.99 | 23.24 |
| 2009/010 | 46.74 | 22.52 |
| Mean | 52.24 | 27.06 |
| S.D | 3.74 | 4.45 |
| C.V | 7.16 | 16.44 |

**Source: Appendix-I (f)**

**Figure No: 4.6**

**Total Investment to Total Deposit Ratio**



The above comparative table reveals that the ratios of total investment to total deposit in case of all the two banks have followed fluctuating trend during the review period. SCBL and NSBIBL have highest ratios are 55.67 percent in FY 2007/08 and 32.91 percent in FY 2008/09 and lowest ratios are 46.74 percent in 2009/010 and 22.52 percent in 2009/010 respectively. The table clearly shows that NSBIBL have very low portion investment its deposit.

On the basis of mean ratios, it can say that all the two banks have not mobilized its deposits in total investment satisfactory. In case of NSBIBL, its capacity to mobilize its fund on total deposit is very poor than SCBL because its mean ratio is only 27.06 percent whereas SCBL have 52.24 percent. On the other hand, observing the coefficient variation of ratios, we can further say that all the banks have highly inconsistent during the study period. Whereas, the coefficient of variances as 7.16 percent and 16.44 percent of SCBL and NISBIBL respectively. It is quite clear from the above analysis that NSBIBL is not so successful in utilizing its resources on investment than that of other two banks. Total deposits, loan and advances and total investments of SCBL and NSBIBL are presented in the bar-diagrams in the following pages.

#### 4.1.2.3 Loan and Advances to Total Working Fund Ratio

Loan and advances is an important are of total assets (total working fund). A commercial bank must be very careful in mobilizing its total asset as loan and advances in appropriate level to generate point. This ratio reflects the extent to which the commercial banks are success in mobilizing their assets on loan and advances for the purpose of income generation. A high ratio indicates better mobilization of fund as loan and advances and vice-versa.

Loan and advances to total working fund ratio $= \frac{Loan\ and\ Advance}{Total\ Working\ Fund}$

**Table No: 4.7**

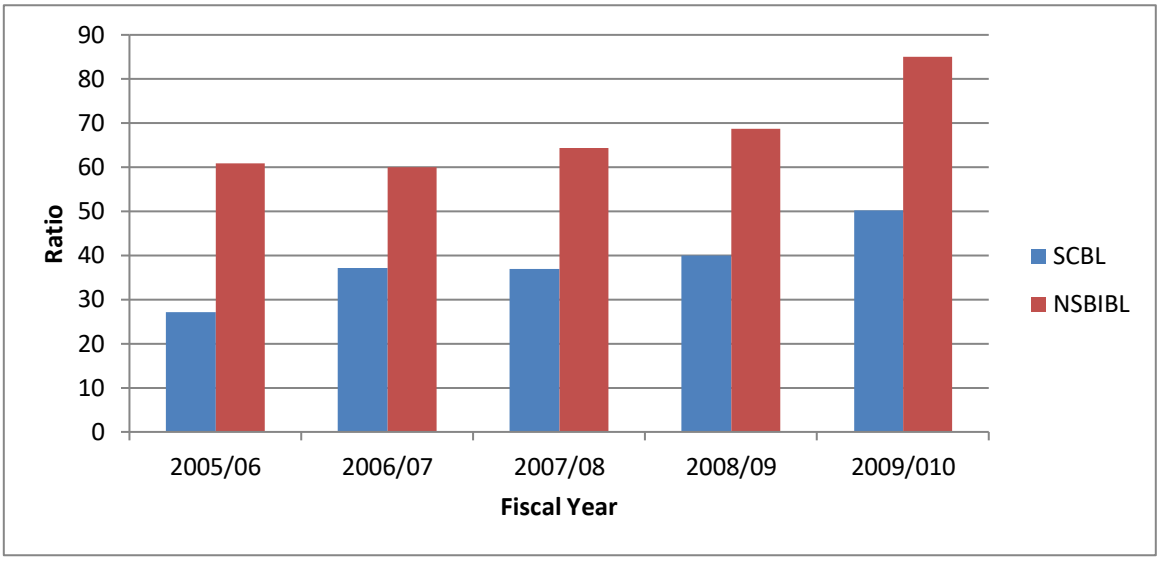
**Loan and Advances to Total Working Fund Ratio**

| Fiscal Year | SCBL | NSBIBL |
|---|---|---|
| 2005/06 | 27.11 | 60.94 |
| 2006/07 | 37.199 | 60.06 |
| 2007/08 | 36.88 | 64.28 |
| 2008/09 | 40.04 | 68.75 |
| 2009/010 | 50.17 | 85.0 |
| Mean | 38.28 | 67.81 |
| S.D | 8.25 | 10.20 |
| C.V | 21.55 | 15.04 |

**Source: Appendix-I (g)**

**Figure No: 4.7**

**Loan and Advances to Total Working Fund Ratio**




Referring to the above table the loan and advances to total working fund ratios of all the three banks have followed fluctuating trend. The highest ratios are 50.17 percent in FY 2009/010 and 85 percent in FY 2009/010 and the lowest ratios are 27.11 percent in FY 2005/06 and 60.04 percent in FY 2006/07 of SCBL and NSBIBL respectively. The

table shows that the NSBIBL has higher ratios of loan and advances to total working fund than that of other two banks in all five years throughout the study period.

In average, NSBIBL has maintained higher loan and advances to total working fund ratio than SCBL i.e. 38.28 percent > 67.81 percent. It states. The coefficient of variance between the above ratios of NSBIBL is 21.55 percent, which is that the position of NSBIBL is better in this regard comparatively lower than 15.04 percent of SCBL. It clearly shows that loan and advances of SCBL is more stable and Consistent than that of NSBIBL.

#### 4.1.2.4 Investment on Government Securities to Total Working Fund Ratio

All the deposit of the bank should not be utilized in loan and advances and other credit from security and liquidity point of view. Therefore, up to some extent, commercial banks seem to be interested to utilize their deposits by purchasing government securities. The ratio of investment on government securities to total working fund is very helpful to know the extent on which the banks are mobilizing their total working fund on different types of government securities. All the commercial banks are invest their fund on government securities for investment diversification and security only. Investment on government securities is not help to the commercial for the profit maximization. This ratio is computed by dividing investment on government securities by total working fund

We have,

Investment of Govt. Securities to total working fund ratio

$$= \frac{Investment\ on\ Govt.Securties}{Total\ Working\ Fund}$$

**Table No: 4.8**

**Investment in Government Securities to Total Working Fund Ratio**

| Fiscal Year | SCBL | NSBIBL |
|---|---|---|
| 2005/06 | 33.62 | 22.17 |
| 2006/07 | 32.9 | 25.02 |
| 2007/08 | 30.18 | 27.64 |
| 2008/09 | 37.59 | 25.46 |
| 2009/010 | 37.09 | 28.96 |
| Mean | 34.08 | 25.79 |
| S.D | 3.08 | 2.61 |
| C.V | 8.98 | 10.12 |

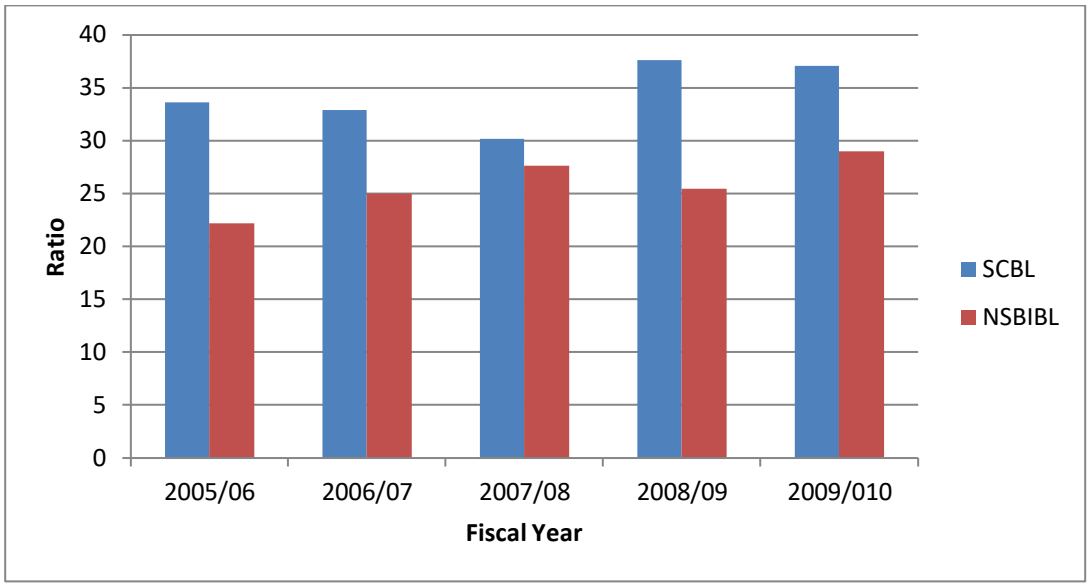
**Source: Appendix-I (h)**

On the basis of above comparative table, it is obvious that the ratios of investment on government securities to total working fund of SCBL and NSBIBL are not similar in all fiscal years. Sometimes, they are very high and sometimes very low. Both banks have followed fluctuating trend, whereas the highest ratios are 37.59 percent in FY 2008/09 and 28.96 percent in FY 2009/010 but the lowest ratios are 30.18 percent in FY 2007/08 and 22.17 percent in FY 2005/06 of SCBL and NSBIBL respectively.

On the basis of mean ratios of investment on government securities and total working fund, NSBIBL seems to be week to cover the average of SCBL. Because it's mean ratio is only 25.79 percent whereas SCBL have 24.28 percent. It case of coefficient of variance, NSBIBL's ratios are less consistent than that of SCBL i.e. 8.98 percent of NSBIBL > 10.12 percent of SCBL respectively. It is clear that the NSBIBL has very high variation during the study period.

**Figure No: 4.8**

**Investment in Government Securities to Total Working Fund Ratio**




From the above analysis, it can be concluded that NSBIBL has invested its very low portion of working fund on government securities. SCBL has also not invested their more portion of working fund on government securities. Finally, the table shows that all the three banks o sound investment policy towards government securities.

### 4.1.2.5 Investment on Share and Debentures to Total Working Fund Ratio

Commercial banks are investing into shares and debentures of other companies. Though, the investment in government securities is relatively safer than investment in shares and debenture of other company. Investment on shares and debentures to total working fund ratio shows to what extent the bank has successfully invested its asset on other company's debentures and shares to generate incomes and utilize their excess fund. A high ratio indicates more portion of investment on shares and debentures. The ratio is calculated by dividing investment on shares and debentures by total working fund

We have,

Investment on shares and debenture to total working fund ratio

$$= \frac{Investment\ on\ Shares\ and\ Debentures}{The\ Working\ Found}$$

**Table No: 4.9**

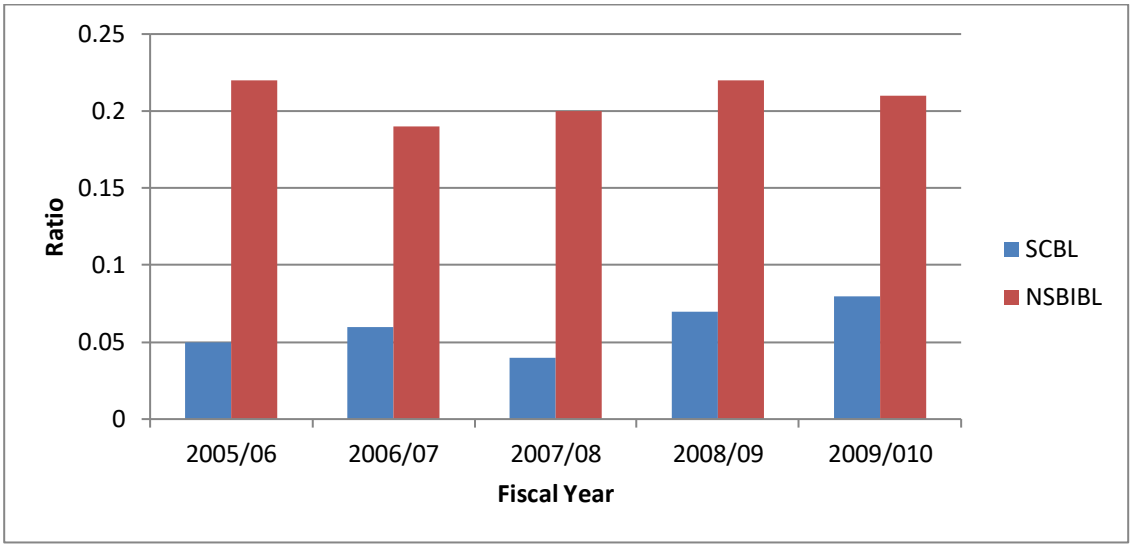
**Investment in Share and Debenture to Total Working Fund Ratio**

| Fiscal Year | SCBL | NSBIBL |
|---|---|---|
| 2005/06 | 0.05 | 0.22 |
| 2006/07 | 0.06 | 0.19 |
| 2007/08 | 0.04 | 0.2 |
| 2008/09 | 0.07 | 0.22 |
| 2009/010 | 0.08 | 0.21 |
| Mean | 0.06 | 0.21 |
| S.D | 0.02 | 0.01 |
| C.V | 33.33 | 4.76 |

**Source: Appendix-I (i)**

**Figure No: 4.9**

**Investment in Share and Debenture to Total Working Fund Ratio**




From the above comparative table shows that the investment on share and debenture to total working fund ratio of SCBL and NSBIBL have followed fluctuating trend. The highest ratios are 10.08 percent in FY 2009/010 and 0.22 percent in FY 2008/09 but the lowest ratios are 0.04 percent in three FY 2007/08 and 0.19 percent in FY 2006/07 of SCBL and NSBIBL respectively.

In case of mean ratios, SCBL has mean ratio is 0.06 percent, which comparative lower than 0.21 percent of NSBIBL. It indicates that the investment on share and debenture with respect to working fund of SCBL has significantly lower than that of other two banks. On the other hand, coefficient of variance of ratios of NSBIBL has maintained 33.33 percent against 4.76 percent of SCBL. It shows that the investment on shares and debenture to total working fund of NSBIBL has not more stable and inconsistent than that of other banks.

From the above analysis that the ratio of investment on share and debenture to total working fund ratio of SCBL has less fluctuating and unsatisfied than NSBIL and NSBIBL.

### 4.1.3 Profitability Ratio

The main objective or joint venture commercial banks are to earn profit by providing different types of banking services to its customers. Sufficient profit is must to have good liquidity, grab investment opportunities, expand banking transitions, finance government in needs of development fun overcome the future contingencies and meet fixed internal obligation for a bank. Profitability ratios are the best indicators of overall efficiency of bank higher the profitability ratio shows the higher efficiency of the bank. Following profitability ratios have been studied under this heading:

i. Return on total working fund ratio
ii. Return on loan and advance ratio
iii. Total Interest earned to total working fund ratio
iv. Total interest paid to total working fund ratio

#### 4.1.3.1 Return on Total Working Fund Ratio

This ratio established the relationship between the net profit and total assets. This ratio also called profit to total assets ratio return will be higher if the banks working fund is well managed and is efficiently utilized. Similarly, minimizing the taxes within the legal options available will also increase in the return. This ratio is collected by dividing the net profit by total working fund.

We have,

Return on total working fund ratio = $\frac{Net\ Profit}{Total\ Working\ Fund}$

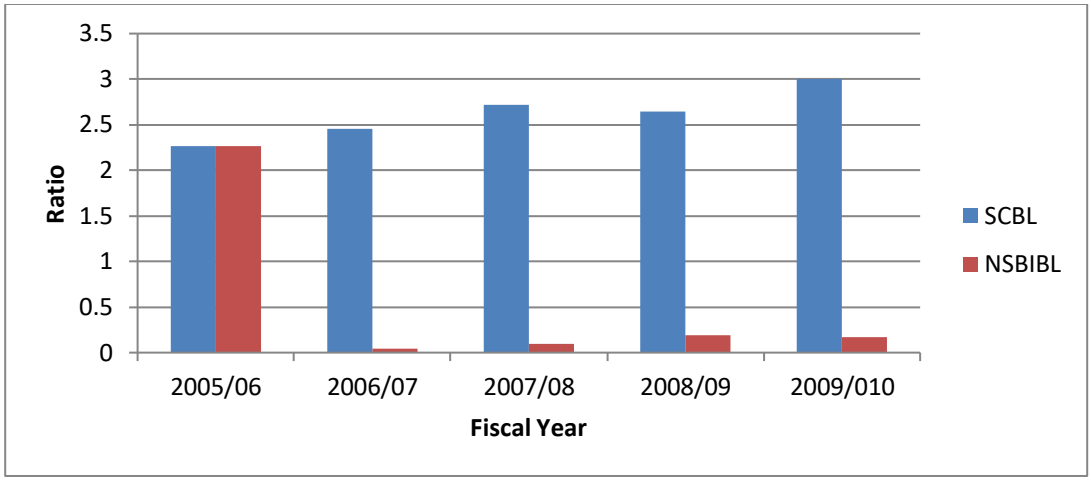
**Table No: 4.10**
**Return on Total Working Fund Ratio (%)**

| Fiscal Year | SCBL | NSBIBL |
|---|---|---|
| 2005/06 | 2.27 | 2.27 |
| 2006/07 | 2.46 | 0.04 |
| 2007/08 | 2.72 | 0.1 |
| 2008/09 | 2.64 | 0.19 |
| 2009/010 | 3.0 | 0.17 |
| Mean | 2.62 | 0.24 |
| S.D | 0.8 | 0.27 |
| C.V | 10.69 | 112.50 |

**Source: Appendix-I (j)**

**Figure No: 4.10**

**Return on Total Working Fund Ratio (%)**




From the above mentioned table it is wear that the return on total working fund ratio of all the sample joint venture banks are in fluctuating trend. The mean ratio of SCBL is the highest i.e. 2.62 percent among the NSBIBL. It indicates that SCBL has earned higher return on its no risky fund in the comparison of the NSBIBL. Similarly NSBIBL has mean ratio of return on total working fund ratio i.e. 0.24 percent. Its indicates that NSBIBL is failure to earn high return on its working fund in the comparison of SCBL.

On the other hand, coefficient of variance of SCBL. On the other hand, coefficient of variance of SCBL and NSBIBL are 1061 percent and 112.50 Percent respectively. Which indicates that SCBL is more consistent and stable with reference to return on total working fund ratio?

### 4.1.3.2 Return on Loan and Advance Ratio

Return on loan and advances ratio shows how efficiently the banks and finance companies have utilized their resources to earn good return by providing loan and advances. This ratio is calculated as bellows:

Return on loan and advances ratio = $\frac{Net\ Profit\ and\ Loss}{Total\ Loan\ and\ Advance}$

**Table No: 4.11**

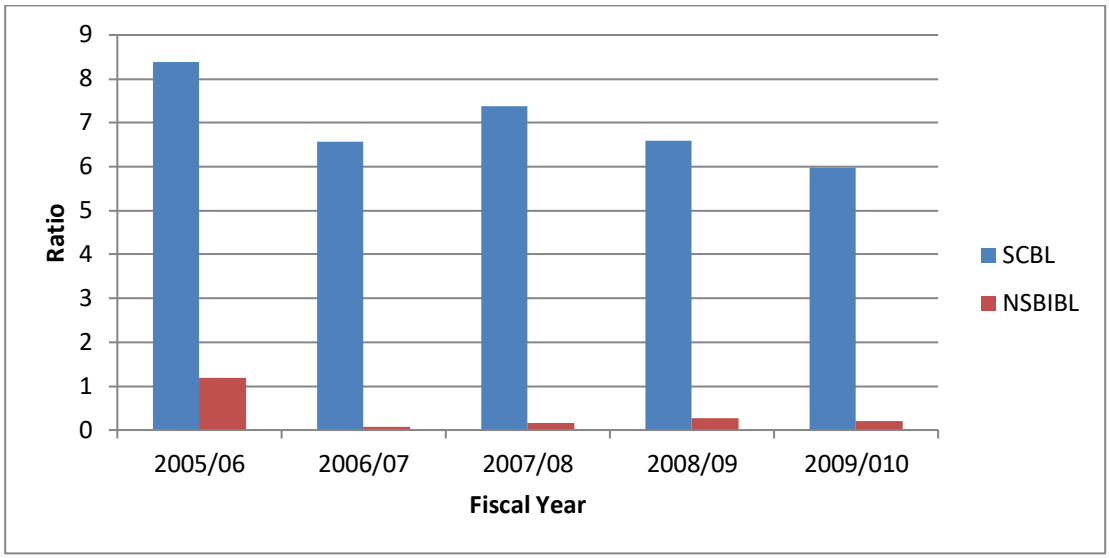
**Return on Loan and Advances Ratio (%)**

| **Fiscal Year** | **SCBL** | **NSBIBL** |
|---|---|---|
| 2005/06 | 8.39 | 1.18 |
| 2006/07 | 6.57 | 0.07 |
| 2007/08 | 7.37 | 0.15 |
| 2008/09 | 6.59 | 0.27 |
| 2009/010 | 5.97 | 0.2 |
| Mean | 6.98 | 0.37 |
| S.D | 0.93 | 0.46 |
| C.V | 13.32 | 124.32 |

**Source: Appendix-I (k)**

**Figure No: 4.11**

**Return on Loan and Advances Ratio (%)**




From the above mentioned comparative table, it is wear that the return on loan and advance ratio of SCBL and NSBIBL are in frustrating trend during the study period. The average ratio of SCBL is the highest i.e. 6.98 percent and average ratio of NSBIBL is the lower than SCBL i.e. 0.37 percent. It indicates that SCBL is more successful to earn profit on loan and advance and is case of NSBIBL is vice-versa. On the other hand the coefficient of variation of SCBL is lower than NSBIBL. It shows that SCBL is consistent with respect to return on loan and advance in the comparison of NSBIBL.

### 4.1.3.3 Total Interest Earned to Total Working Fund Ratio

This ratio indicates the extent to which the bank has successfully mobilized to generate high income as interest. A ratio indicates high earning power of the bank on its working fund and vice-versa. This ratio Sis calculated as bellow:

Total interest earned to total working fund ratio = $\frac{Total\ Intrest\ Earned}{Total\ Working\ Fund}$

**Table No: 4.12**

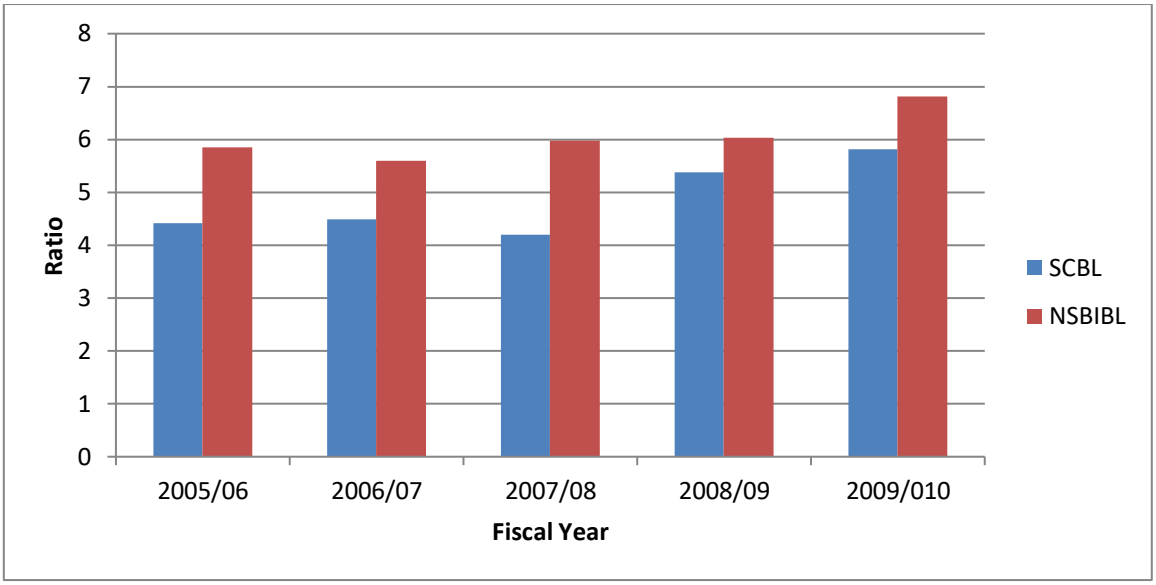
**Total Interest Earned to Total Working Fund Ratio**

| Fiscal Year | SCBL | NSBIBL |
|---|---|---|
| 2005/06 | 4.41 | 5.85 |
| 2006/07 | 4.48 | 5.59 |
| 2007/08 | 4.19 | 5.97 |
| 2008/09 | 5.38 | 6.04 |
| 2009/010 | 5.82 | 6.81 |
| Mean | 5.07 | 6.05 |
| S.D | 0.54 | 0.46 |
| C.V | 10.65 | 7.60 |

**Source: Appendix-I (l)**

**Figure No: 4.12**

**Total Interest Earned to Total Working Fund Ratio**




From t he above comparative table, it is found that the total interest earned to total working fund ratio of SCBL and NSBIBL are in fluctuant t rend. The average ratio of interest earned to total working fund of SCBL and NSBIBL are 5.07 percent and 6.05 percent respectively which indicates that NSBIBL has highest ratio than SCBL. It means NSBIBL has earned more interest income from total working fund and in the

case of SCBL is vice-versa. On the other hand the C.V. of NSBIBL is the lower than SCBL i.e. 10.65 > 7.60 percent which means NSBIBL is more consistent with reference to earning interest to total working fund.

#### 4.1.3.4 Total Interest Paid to Total Working Fund Ratio

This ratio measure the percentage of total interest paid against total working fund. A high ratio indicates the higher interest expenses on total working fund and vice-versa. This ratio is calculated as below:

Total interest paid to total working fund ratio = $\frac{Total\ intrest\ Paid}{Total\ Working\ Fund}$

**Table No: 4.13**

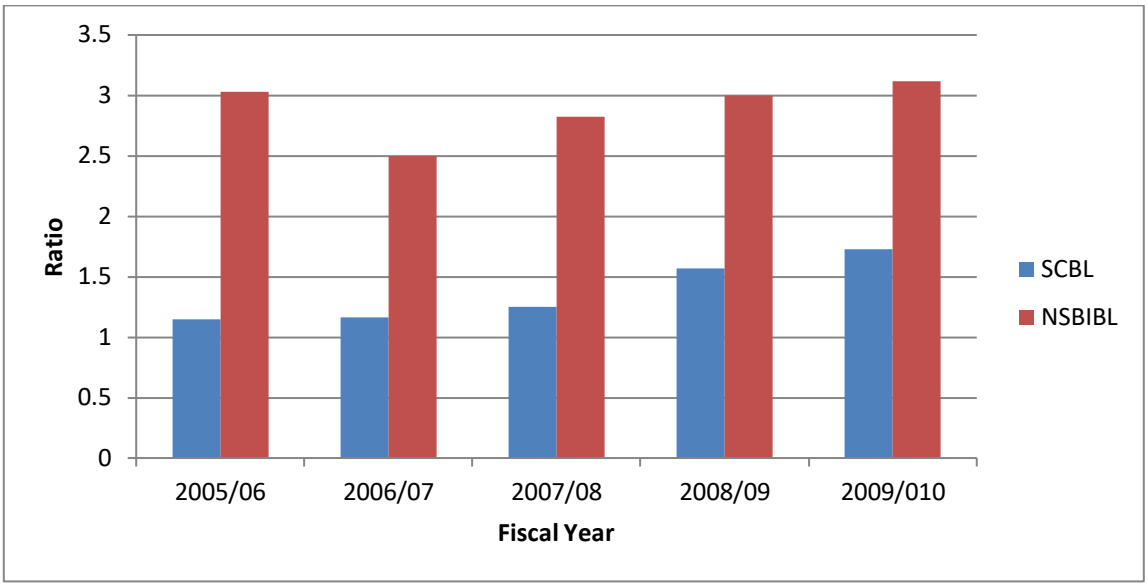
**Total Interest Paid to Total Working Fund Ratio (%)**

| **Fiscal Year** | **SCBL** | **NSBIBL** |
|---|---|---|
| 2005/06 | 1.15 | 3.03 |
| 2006/07 | 1.16 | 2.5 |
| 2007/08 | 1.25 | 2.82 |
| 2008/09 | 1.57 | 3 |
| 2009/010 | 1.73 | 3.12 |
| Mean | 1.37 | 2.89 |
| S.D | 0.26 | 0.25 |
| C.V | 18.98 | 8.65 |

**Source: Appendix-I (m)**

**Figure No: 4.13**

**Total Interest Paid to Total Working Fund Ratio (%)**




The above mentioned comparative tables shows that the total interest paid to total working fund ratio of SCBL and NSBIBL have followed fluctuating above mentioned banks are 1.37 percent and 2.89 percent respectively. The average ratio of SCBL is lower than NSBIBL.

It means SCBL has paid the interest on its working fund in the comparison or NSBIBL. Similarly, NSBIBL has the higher average ratio i.e. 2.89 percent than SCBL which means NSBIBL has paid more interest against its working fund in the other hand the C.V. of NSBIBL is lower than SCBL, it means NSBIBL is more uniform with reference to paying interest against total working fund.

### 4.1.4 Risk Ratio

Risk always sticks with return. If there is return, risk will definitely be there. Higher the risk higher will be return. Risk is very closely associated with investment. A banks has to take high risk if it expects high return on its investment. Risk ratio measure the level of risk. The following ratio has been studied under this topic for the purpose of measuring the risk.

i. Liquidity risk ratio

ii. Credit risk ratio

### 4.1.4.1 Liquidity Risk Ratio

The cash and bank balance are the most liquid assets and they are considered as bank liquidity source. When the banks make loan, its profitability increase and also the risk. Higher liquidity ratio indicates less

Profitable return and vice-versa. This ratio is calculated as bellow:

Liquidity risk ratio $= \frac{Cash\ and\ Balance}{Totl\ Deposit}$

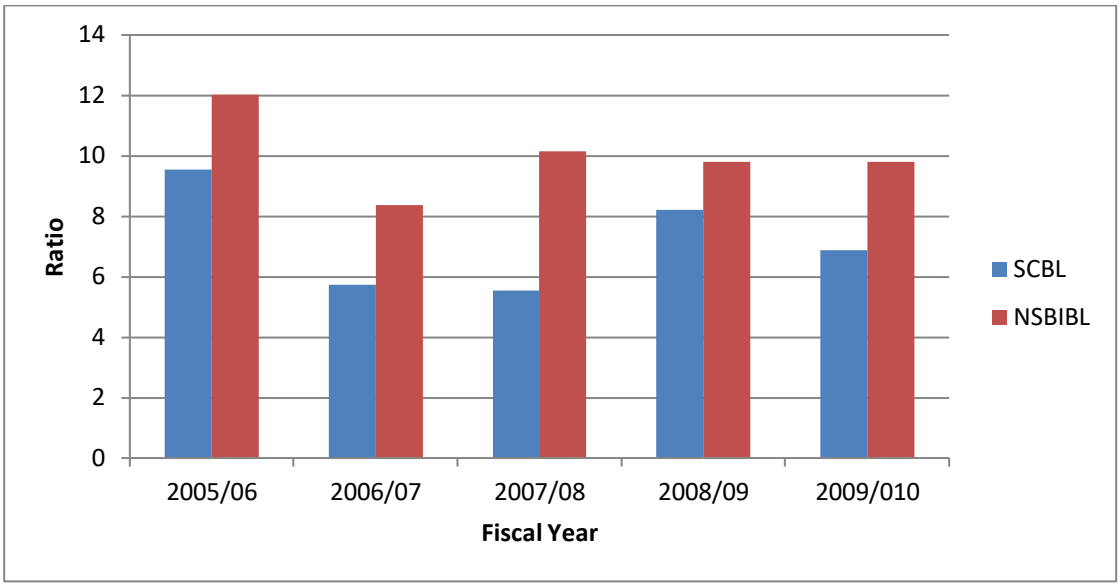
**Table No: 4.14**
**Liquidity Risk Ratio (%)**

| Fiscal Year | SCBL | NSBIBL |
|---|---|---|
| 2005/06 | 9.56 | 12.01 |
| 2006/07 | 5.75 | 8.36 |
| 2007/08 | 5.53 | 10.16 |
| 2008/09 | 8.2 | 9.81 |
| 2009/010 | 6.89 | 9.79 |
| Mean | 7.19 | 10.03 |
| S.D | 1.70 | 1.31 |
| C.V | 23.64 | 13.06 |

**Source: Appendix-I (n)**

**Figure No: 4.14**

**Liquidity Risk Ratio (%)**




The above mentioned comparative table shows that the mean cash and bank balance to total deposit ratio of SCBL and NSBIBL are 7.19 percent and 10.03 percent respectively. SCBL has the lowest liquidity ratio i.e. 7.19 percent than NSBIBL, which indicates that SCBL operates with higher risk for higher profit. On the other NSBIBL has the lowest C.V. i.e. 23.64 > 13.06 percent than SCBL. This indicates that NSBIBL is more consistent with reference to liquidity risk ratio than SCBL.

### 4.1.4.2 Credit Risk Ratio

Bank utilizes its collected funds in providing credit to different sector. Risk is always associated with credit while making investment; bank examines the credit risk involved in the project. Cr edit risk ratio shows the proportion of non-performing assets in total investment plus loan and advance of a bank. It is calculated as bellow:

$$\text{Credit risk ratio} = \frac{Total\ Investment + Total\ Loan\ and\ Advance}{Total\ Assets}$$

**Table No: 4.15**

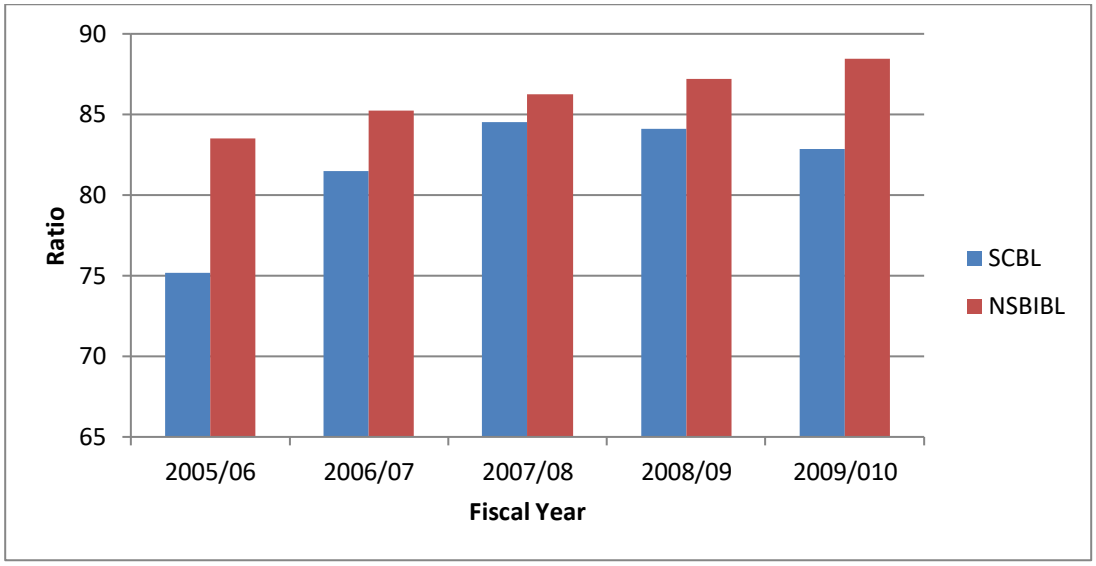
**Credit Risk Ratio (%)**

| Fiscal Year | SCBL | NSBIBL |
|---|---|---|
| 2005/06 | 75.17 | 83.54 |
| 2006/07 | 81.51 | 85.27 |
| 2007/08 | 84.5 | 86.28 |
| 2008/09 | 84.12 | 87.19 |
| 2009/010 | 82.86 | 88.45 |
| Mean | 81.96 | 86.15 |
| S.D | 3.80 | 1.87 |
| C.V | 6.64 | 2.17 |

**Source: Appendix-I (o)**

**Figure No: 4.15**

**Credit Risk Ratio (%)**




The above mentioned comparative table indicates that the credit risk ratios of all sample banks are fluctuating trend. The average credit risk ratio of SCBL and NSBIBL are 81.96 percent and 86.15 percent respectively. NSBIBL has the highest average credit

risk ratio i.e. 86.15 percent, it SCBL has the lowest coefficient of variation i.e. 4.64 > 2.17 percent, which indicates that SCBL credit risk is more uniform.

### 4.1.5 Growth Ratio

The growth ratios represent how was the commercial banks are maintaining their economic and financial position. Higher the ratios better the performance of a bank and vice-versa. Under this topic, those growth ratios are analyzed an interpreted which are directly related to the found mobilization and investment management of commercial bank.

There ratios are as follows:

i. Growth ratio of total deposit

ii. Growth ratio of loan and advances

iii. Growth ratio of total investment and

iv. Growth ratio of net profit

The ratios can be computed by dividing the last period figure by the first period figure then by referring to the compound interest tables.

#### 4.1.5.1 Growth Ratio of Total Deposit

**Table No: 4.16**

**Growth Ratio of Total Deposit**

**Rs. In Millions**

| **Fiscal Year** | **SCBL** | | **NSBIBL** | |
|---|---|---|---|---|
| | **Total Deposit** | **Growth Ratio (%)** | **Total Deposit** | **Growth Ratio (%)** |
| 2005/06 | 21161.46 | 12.83 | 7198.33 | 10.36 |
| 2006/07 | 19335.10 | 8.63 | 8654.77 | 20.23 |
| 2007/08 | 23061.03 | 19.27 | 11002.04 | 27.12 |
| 2008/09 | 24647.01 | 6.88 | 1144.29 | 4.03 |
| 2009/010 | 29743.92 | 20.67 | 13715.39 | 19.83 |
| **Average** | | **10.20** | | **16.31** |

**Source: Appendix-II**

The above mentioned table shows that the growth ratio of total deposit or SCBL and NSBIBL are fluctuating trend. SCBL and NSBIBL have the highest growth of 20.67 percent and 27.12 percent in year 2009/010 and 2007/08 respectively. Average growth ratio of NSBIBL is higher than SCBL.

### 4.1.5.2 Growth Ratio of Loan and Advances

**Table No: 4.17**

**Growth Ratio of Total Investment**

**Rs. In Millions**

| **Fiscal Year** | **SCBL** | | **NSBIBL** | |
|---|---|---|---|---|
| | **Total Investment** | **Growth Ratio (%)** | **Total Investment** | **Growth Ratio (%)** |
| 2005/06 | 11357.68 | 9.65 | 19.7.52 | 58.00 |
| 2006/07 | 9702.55 | 14.57 | 26.7.68 | 36.71 |
| 2007/08 | 12838.56 | 32.32 | 3620.78 | 28.85 |
| 2008/09 | 13553.23 | 5.57 | 2659.45 | 26.55 |
| 2009/010 | 13902.82 | 2.58 | 3088.89 | 16.15 |
| **Average** | | **7.11** | | **24.63** |

**Source: Appendix-II**

The above mentioned table shows the growth rate of total investment of SCBL and NSBIBL less than five years study period. Both banks have followed the trend of fluctuation in investment sector which may be the case of in growth ratio. SCBL and NSBIBL have the highest growth of 32.32 percent and 58 percent in the year 2007/08 and 2005/06 respectively. Average growth ratio of NSBIBL is the highest i.e. 24.63 percent.

### 4.1.5.3 Growth Ratio of Total Investment

**Table No: 4.18**

**Growth Ratio of Loan and Advances**

**Rs in Millions.**

| Fiscal Year | SCBL | | NSBIBL | |
|---|---|---|---|---|
| | Total Loan and advance | Growth Ratio (%) | Total Loan and Advance | Growth Ratio(%) |
| 2005/06 | 6410.24 | 12.54 | 5143.66 | 15.10 |
| 2006/07 | 8143.21 | 27.03 | 6213.87 | 20.81 |
| 2007/08 | 8935.42 | 9.73 | 7326.74 | 22.74 |
| 2008/09 | 10502.64 | 17.54 | 9460.45 | 24.04 |
| 2009/010 | 13718.60 | 30.62 | 12113.70 | 28.05 |
| **Average** | | **19.49** | | **22.15** |

**Source: Appendix-II**

The above mentioned comparative table shows the growth ratio or loan and advances of SCBL and NSBIBL growth ratio due positive. This indicates that these banks have increases in providing loan and advance in the comparison and previous year. SCBL and NSBIBL have highest growth of 30.62 percent and 28.05 percent in the same year 2008/09. Average growth ratio of NSBIBL is the highest ratio i.e. 22.15 percent than SCBL.

### 4.1.5.4 Growth Ratio of Net Profit

**Table No: 4.19**
**Growth Ratio of Net Profit**

**Rs in Millions.**

| Fiscal Year | SCBL | | NSBIBL | |
|---|---|---|---|---|
| | Net Profit | Growth Ratio (%) | Net profit | Growth Ratio(%) |
| 2005/06 | 537.80 | 6.08 | 6086 | 24.84 |
| 2006/07 | 537.90 | 0.02 | 4.46 | 92.0 |
| 2007/08 | 658.76 | 22.47 | 11.70 | 154.34 |
| 2008/09 | 691.67 | 5.00 | 25.49 | 117.86 |
| 2009/010 | 818.92 | 18.40 | 24.78 | 2.79 |
| **Average** | | **10.39** | | **40.45** |

**Source: Appendix-II**

The above mentioned comparative growth table shows that there is high degree of flucation in profit earning capacity. SCBL has positive and NSBIBL has negative growth of net profit during the study period. SCBL and NSBIBL have the highest growth or 18.40 percent and 117.86 percent in the years 2009/010 and 2008/09 respectively. NSBIBL has the highest average growth ratio i.e. 40.45 percent.

## 4.2 Statistical Analysis

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

1. Co-efficient of Correlation Analysis
2. Testing of Hypothesis
3. Trend Analysis

### 4.2.1 Co-efficient of Correlation Analysis

Under this topic, Karl Person's coefficient of correlation has been used to find out the relationship between deposit and total investment deposit and loan and advance and profit.

#### 4.2.1.1 Analysis of Correlation Coefficient between Loan and Advances and Net Profit

Analysis of correlation coefficient between loan and advances and net profit of SCBL and NSBIBL has been decreased under the following table. In this case, loan and advance is independent variable (X) and net profit is dependent (Y).

**Table No: 4.20**

**Correlation Coefficient between Loan and Advance and Net Profit**

| Banks | Base of Evaluation | | | |
|---|---|---|---|---|
| | **r** | **$r^2$** | **P.E.** | **6×P.E.** |
| SCBL | 0.960 | 0.921 | 0.277 | 1.664 |
| NSBIBL | -0.257 | 0.066 | 0.020 | 0.119 |

**Source: Appendix-III**

From the above analysis it is found that correlation coefficient between loan and advance and net profit of SCBL is 0.960. It means there is moderate degree of positive coefficient of correlation between two variables. The value of R2 is 0.921, which means 92.1 percent of net profit dependent upon loan and advance and the rest 7.90 percent Dependent upon other variables. Similarly probable error is 0.277 and 6 P.E. is 1.664 which is greater than value of r, it means there is no significance relationship between loan and advance and net profit.

Similarly, correlation coefficient between loan and advance and net profit of NSBIBL is -0.257. It means there is low degree of negative coefficient correlation between these two variables of NSBIBL.

Similarly, coefficient of determination R2 is 0.066 which means 6.6 percent of net profit dependent upon these variables and the rest 93.4 percent dependents upon other variables. The value of 'r' is less than the 6 times of P.E. of NSBIBL, which indicates that there is no significance relationship between loan and advance and net profit.

**4.2.1.2 Analysis of Correlation Coefficient between Deposit and Loan and Advance**

The relationships between deposit and loan and advance of SCBL NSBIBL have been presented in the following table. Here deposit is independent variables (X), loan and advances are dependent variable (Y).

**Table No: 4.21**

**Correlation Coefficient between Deposit and Loan and Advance**

| **Banks** | **Base of Evaluation** | | | |
|---|---|---|---|---|
| | **r** | **$r^2$** | **P.E.** | **6×P.E.** |
| SCBL | 0.92 | 0.85 | 0.046 | 0.28 |
| NSBIBL | 0.97 | 0.94 | 0.018 | 0.11 |

**Appendix-III**

From the above analysis it is found that correlation coefficient between total deposit and loan and advance of SCBL and NSBIBL are 0.92 and 0.97 respectively. It means there is high degree of positive correlation coefficient between deposit and loan and advance.

The value of coefficient of determinant R2 SCBL and NSBIBL are 0.85 and 0.94, it means 85 percent and 94 percent loan and advance decision of above mentioned banks depends upon deposit and the rest 15 percent and 6 percent loan and advance decision depends upon other variable respectively.

By analyzing probable error P.E. it can be concluded that there is significant relationship between deposit and loan and advance, SCBL and NSBIBL because its r is greater than 6 times P.E. i.e. (0.92 > 0.28) or
(0.97 > 0.11).

**4.2.1.3 Analysis of Correlation Coefficient between Deposit and Total Investment**

The relationships between deposit and total investment of SCBL and NSBIBL have been described under the following table. In this case deposit is independent variable (X) and total investment of dependent variable (Y).

**Table No: 4.22**

**Correlation Coefficient between Total Deposit and Total Investment**

| **Banks** | **Base of Evaluation** | | | |
|---|---|---|---|---|
| | **r** | **$r^2$** | **P.E.** | **6×P.E.** |
| SCBL | 0.8770 | 0.7691 | 0.0695 | 0.4172 |
| NSBIBL | 0.7429 | 0.5519 | 0.0547 | 0.3284 |

**Appendix-III**

From the above analysis, it is found that correlation coefficient between deposit and total investment of SCBL and NSBIBL 0.8770 and 0.7429; it shows that there is high degree of positive correlation between deposit and investment of SCBL and NSBIBL.
The value of coefficient of determination R2 of SCBL and NSBIBL 0.769 and 0.5519 respectively. It means 76.92 percent and 55.19 percent investment depend upon total

deposit and remaining 33.09 percent and 46.81 percent total investment depend upon other variables respectively.

By analyzing probable error P.E., it can be concluded that there is significant relationship between total deposit and total investment of both joint venture bank because correlation coefficient greater than 6 P.E. i.e.
(0.8770 > 0.4272) and (0.7429 > 0.3284).

### 4.2.2 Trend Analysis

A commercial bank may grant loan and advances and investment some of the fund in government securities and share and debentures of other companies, under this topic, ratio between deposit and loan and advances as well as ratios between deposit and total investment are forecasted for rent five years. The projections are based on the following assumptions:

i. The main assumption is that other things will remain unchanged.
ii. The economy will remain in the present stage.
iii. The bank will run in present position.
iv. The forecast will be true only when the limitation of least square Method is carried out.
v. Nepal Rastra Bank will not change its audiences to commercial banks.

#### 4.2.2.1 Trend Analysis of Loan and Advance to Total Deposit Ratio

The following table represents the trend value of loan and advances to total deposit of SCBL and NSBIBL with comparative study of five years period and project next five years.

**Table No: 4.23**

**Trend Value of Loan and Advances to Total Deposit Ratio**

| Fiscal Year | SCBL | NSBIBL |
|---|---|---|
| 2005/06 | 33.5 | 67.79 |
| 2006/07 | 36.7 | 72.5 |
| 2007/08 | 39.9 | 76.71 |
| 2008/09 | 43.2 | 81.17 |
| 2009/010 | 46.4 | 85.63 |
| 2010/11 | 49.6 | 90.09 |
| 2011/12 | 52.8 | 94.55 |
| 2012/13 | 56.0 | 99.0 |
| 2013/14 | 59.27 | 103.4 |
| 2014/15 | 62.49 | 107.79 |

**Source: Appendix-IV**

The above mentioned table shows that the loan and advance to total deposit ratio of SCBL and NSBIBL are in increasing trend, if other things remaining the same, the loan and advance to total deposit ratio of SCBL and NSBIBL will be 62.49 percent and 107.93 percent respectively.

#### 4.2.2.2 Trend Analysis of Total Investment to Total Deposit Ratio

Following table represents the trend value of total investment to total deposit ratio of SCBL and NSBIBL with comparative study of five years period and projected next five years.

#### 4.2.2.3 Trend Analysis of Total Investment to Total Deposit Ratio

Following table represents the trend value of total investment to total deposit ratio of SCBL and NSBIBL with comparative study of five years period and projected next five years.

**Table No: 4.24**

**Trend Value of Total Investment to Total Deposit Ratio**

| Fiscal Year | SCBL | NSBIBL |
|---|---|---|
| 2005/06 | 34.04 | 30.03 |
| 2006/07 | 53.14 | 28.55 |
| 2007/08 | 57.24 | 27.06 |
| 2008/09 | 51.24 | 25.56 |
| 2009/010 | 50.44 | 24.09 |
| 2010/11 | 49.54 | 22.61 |
| 2011/12 | 48.64 | 22.12 |
| 2012/13 | 47.74 | 19.64 |
| 2013/14 | 46.84 | 18.15 |
| 2014/15 | 45.94 | 16.67 |

**Source: Appendix-IV**

The above mentioned comparative table shows that the trend of total deposit ratios of SCBL and NSBIBL are in decreasing trend. If other things remaining the same, the total investment to total deposit ratio of SCBL and NSBIBL will be 45.94 percent and 16.67 percent respectively in 2013/14.

## 4.3 Major Findings of the Study

The main findings of the study have been derived on the analysis of financial data of SCBL and NSBIBL, which are given below:

### a. Major Findings from Liquidity Ratio

- Average ratios of cash and bank balance to total deposit reveals that NSBIBL has the highest ratio then SCBL. Which shows that the liquidity position of NSBIBL is better than that of other banks? Whereas SCBL has the lowest C.V., it means SCBL is more uniform in the comparison of other banks.
- Average ratio of each and bank balance to current assets reveals that NSBIBL has the highest average ratio. It means the liquidity position of current assets of

NSBIBL is better in comparison of other banks. However SCBL has taken more risk to meet the daily requirement of its customer deposit in the comparison of other banks. On the other hand, SCBL has the lowest C.V., it means SCBL is more consistent in the concern of maintaining cash and bank balance.

- Average ratio of investment in government securities to current assets reveals that SCBL has the highest ratio then NSBIBL. It means SCBL has invested more part of the current assets in government securities and NBBL has invested less part of the current assets in the government securities. On the other hand, C.V. of SCBL is the lowest; it means SCBL is more stable to make investment in government securities.
- The average ratio of loan and advance to current assets shows that NSBIBL has the highest ratio then SCBL. It means NBBL has mobilized more portions of its current assets in loan and advance and in t he case of SCBL vice-versa.

**b. Findings from Assets Management Ratio**

- Following are the major findings from assets management ratio. The average ratio of loan and advance to total deposit of NSBIBL is the grater then SCBL. It means NSBIBL has mobilized its collected deposit on loan and advance more than other banks but SCBL seem to be week to mobilize its collected deposit on loan and advance. SCBL is more stable in providing loan and advance.
- The average ratio of total investment to total deposit ratio of SCBL is the greater the NSBIBL. It means SCBL has mobilized its collected of other banks whereas NSBIBL has not mobilized its collected deposit on investment property.
- The average loan and advance to total working fund ratio of NSBIBL is the grater then SCBL. It shows that NSBIBL has successfully mobilized its total working fund as loan and advance in the comparison of other banks. Whereas SCBL has mobilized only few portion of its working fund of loan and advance.
- The average ratio of investment in government securities to total working fund ratios reveals that SCBL seems more successful to invest its working fund in government securities in the comparison of NSBIBL. However NSBIBL has the

lower investment on government securities. On the other hand, SCBL is more consistent in investing working fund on government securities.

- The average ratio of investment on shares and debentures to total working find ratio of NSBIBL is the grater then SCBL. It means NSBIBL has invested its more fund in share and debenture whereas SCBL has invested only few portion of working fund on shares and debentures. On the other hand, NSBIBL seems to be more stable and debentures from total working fund.

**c. Findings from Profitability Ratio**

- The average ratio of total working fund of SCBL is grate then NSBIBL. It means SCBL is more successful to earn profit on total working fund in the comparison of other banks, on the other hand SCBL seems more stable in earning profit because it has the lowest C.V.
- The average ratio of return on loan and advance of SCBL is the highest. It means SCBL is more successful to earn profit on loan and advance. Whereas SCBL is more consistent with respect to earn profit on loan and advance as it has the lowest C.V.
- The average total interest earned to total working fund ratio of NSBIBL is the highest. It means NSBIBL has earned more interest from total working fund. On the other hand NSBIBL is more consistent with reference to earn interest to total working fund as it has the lowest C.V. then SCBL.
- The average ratio of total interest paid to total working fund of SCBL is the lowest it means SCBL has paid lower interest in the comparison of NSBIBL. However NSBIBL seems stable in paying interest in the comparison of SCBL as it has the lower C.V.

**d. Findings from Risk Ratio**

- The average liquidity risk ratio of SCBL is the lowest; it means SCBL operates with higher risk for higher profit. On the other hand NSBIBL is more consistent with reference to liquidity risk ratio as it has the lowest C.V.

- The average credit risk ratio of NSBIBL is the highest then SCBL, it indicates that NSBIBL has higher credit risk in the comparison of SCBL. On the other hand, SCBL is more uniform with reference to credit risk because it has the lowest C.V.

**e. Findings from Growth Ratio**

- The average growth rate of deposit of NSBIBL is the highest then SCBL. It indicates that NSBIBL seems better in collecting deposit in the comparison of SCBL. Similarly SCBL seems weak in collecting deposit.
- The average growth ratio of total investment of NSBIBL is the highest.
- The average growth ratio of net profit of NSBIBL is the highest then SCBL; it means the net profit earning capacity of NSBIBL is more satisfactory in the comparison of SCBL.
- The average growth ratio of loan and advance of NSBIBL is the highest; it indicates that NSBIBL has provided more funds in loan and advance in the comparison of SCBL.

**f. Coefficient of Correlation Analysis**

- It is found that there is significant relationship between deposit and investment, in case of SCBL and NSBIBL. However, SCBL has the highest value of coefficient of correlation between deposit and loan and advances than that of other two banks. It indicates that the better position of it in mobilizing deposits as loan and advances in compare of SCBL and NSBIBL.
- Coefficient of correlation between deposit and total investment of SCBL is higher than that of NSBIBL and lower that of NSBIBL, where NSBIBL has negative value of coefficient of correlation between deposit and loan and advances. It indicates that NSBIBL has adopted the policy of minimum investment of their deposits.

**g. Trend Analysis**

- Trend values of loan and advances to total deposit ratio of SCBL and NSBIBL have been found increasing. In case of SCBL and NSBIBL, the highest trend values in 2014/15 are 62.49 and 107.93 but lowest trend values in 2005/06 are 33.55 and 67.79 respectively.
- Trend values of total investment to total deposit ratio of NSBIBL and SCBL are found decreasing. The highest trends values of NSBIBL and SCBL have found in 2005/06 are 30.03 and 54.04 and lowest trend values in 2014/15 are 16.67 and 45.94 respectively.
- From the above findings, it can be concluded that SCBL and NSBIBL have increasing trend values in loan and advances to total deposit. But both sample joint venture commercial banks have decreasing trend value for total investment to total deposit ratio.

# CHAPTER– V

# SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter highlights some selected actionable conclusions and recommendations on the basis of the main findings, which are derived from the analysis of SCBL and NSBIBL. In order to carry out this study, data have been basically obtained by the secondary sources. The analysis is performed with the help of financial tools and statistical tools. The analysis is associated with comparison and interpretation. Under financial analysis, various financial ratios related to the investment function of commercial banks. They are liquidity ratio, profitability ratio, asset management ratio, risk ratio and growth ratios. Under statistical analysis, some relevant statistical tools are used. They are coefficient of correlation, trend analysis and test of hypothesis.

## 5.1 Summary

In this study, the financial tools - ratio analysis viz. liquidity ratio, asset management ratios, profitability ratios, risk ratios, growth ratios and statistical tools like percentage, mean, standard deviation, co-efficient of variation, co-efficient of correlation and trend analysis have been used for the analysis and interpretation of the data. The data, which are employed in this research, are secondary in nature. They are obtained from annual reports of the concerned banks. Likewise, the financial statement of five years (from 2005/6 to 2009/10) was selected for the purpose evaluation.

Since, the liquidity position of SCBL has not found satisfactory. It is, therefore, suggested them to improve cash and bank balance to meet current obligations. SCBL's loan and advances to total deposit ratio is lower at all, it is recommended to follow liberal lending policy for enhancement of fund mobilization. The profitability position of NSBIBL has lower than SCBL but not satisfactory of all two banks. So, all two banks have to invest t heir fund in profitable sectors. The risk ratio of NSBIBL has higher, it is suggested that they must careful about risk either credit risk or capital risk. In case of growth ratio NSBIBL has failure to maintain its positive growth ratio of total

investment and net profit. There is significant relationship between 'deposit and loan and advances' and 'outside assets and net profit' of SCBL and NSBIBL. But there is no significant relationship between deposit and total investment of NSBIBL only. It is recommended to NSBIBL, it has to invest its fund on share and debentures of other companies. The performance of profit earning of NSBIBL was found poor the SCBL. Therefore, it is suggested to enhance off-balance sheet transactions, diversity their investments, open new branches, play merchant banking roles and invest their risk assets and shareholder's funds to gain highest profit margin

## 5.2 Conclusion

Economic liberalization policy of the government has encouraged the establishment and growth of commercial banks in the country with in short span of time. In a situation when the existing financial institutions, especially government's commercial banks were unable to supply credit timely and carry capital market activities, private joint venture commercial banks have contributed a lot. In Nepal, up to now, there are 9 joint venture commercial banks and other 22 domestic commercial banks.

Thus, total number of commercial banks in Nepal is 31 of commercial banks all over the kingdom, but now some branches are reduce and merge with other branches due to lack of proper security.

The overall performance of joint venture commercial banks is satisfactory and Nepal Rastra Bank has to play more active role to enhance the operation. The analyses of liquidity position of sample joint venture commercial banks, SCBL and NSBIBL have satisfactory.

NSBIBL has higher liquidity position than that of SCBL. The lending and investment activity of SCBL has lower position than that of NSBIBL but the profitability position is higher than that of other banks. The coefficient of correlation of deposit and lending and investment of SCBL has better position and NSBIBL has not better than SCBL. The risk of losses and growth position of SCBL has better position than that of

NSBIBL. In case of trend analysis, the trend value of loan and advances to total deposit of SCBL and NSBIBL are better position.

Similarly, NSBIBL and SCBL have poor position in total investment to total deposit. Initially the major part of these banks was consisting of business and industrial loan; this is the indication of investment on productive sector. Nowadays, these banks are slowly turned on hire purchase and housing financing.

Strengthening and the institutionalization of the commercial banks is very important to have a meaningful relationship between commercial banks and national development through shift of credit to the productive industrial sectors. At the same time the series of reforms such as consolidation of commercial banks, directing attention to venture capital financing, appropriate risk return trade of by linking credit to timely repayment schedules, avoiding imperfections, allowing flexibility in lending, one window service from NRB, need of strong supervision and monitoring from NRB, diversity scope of activities for commercial banks, professional culture within commercial banks, etc. All these are necessary to ensure better future performance of commercial banks that have already been established and growing in Nepal.

The commercial banks have to prove that they can really contribute to the national economy, are efficient and viable agencies for mobilization of saving and its canalization into productive sectors, are professionally managed and competent enough to ensure adequate rate of return on investment and are strategically well planned to be competitive with other agencies and are trust worthy.

## 5.3 Recommendations

On the basis of analysis and findings of the study, following recommendations can be advanced to overcome weakness, inefficiency and to improve present fund mobilization and investment SCBL and NSBIBL.

- This liquidity position of a bank may be affected by external as well as internal factors. The affecting factors may be interest rates, supply as demand position of loan and advances as well as savings, investment situations, central bank's directive, the lending policies, capability of management, strategic planning and funds flow situations. As SCBL has maintained the ratios of cash and bank balance to total deposit and current assets considerably lower than that of NSBIBL. SCBL is recommended to increased cash and bank balance to meet current obligations and loan demand.

- To get the success in competitive banking environment, depositors' money must be utilized as loan and advances. Negligence in administering this asset could be the main cause of a liquidity crisis in the bank and one of the main reasons of a bank failure. It has been found from the study that NSBIBL has greater ratios at all, because its large portion of fund invested as loan and advances and negligence to invest on other sectors. SCBL has not properly used their existing fund as loan and advances. To overcome this situation, SCBL is strongly recommended to follow liberal lending policy.

- As a bank of private sector, commercial banks cannot keep their eyes closed from the profit motive. They should be careful in increasing profit in a real sense to maintain the confidence of shareholder, depositors and its all customers. NSBIBL's profitability position is worse than that of SCBL. So, NSBIBL is strongly recommended to utilize risky assets and shareholders' fund to gain highest profit margin. Similarly, it should reduce its expenses and should try to collect cheaper fund being more profitable.

- Though the government securities issued by a government are considered to be free of risk of default, such securities yield the lowest interest rates of a particular maturity due to low risk feature. NSBIBL has maintained lowest at all. So it is recommended to NSBIBL that if it has idle funds it should be invest them in government securities. It should keep in mind this proverb, "Something is better than nothing."

- The experience shows that Off-balance sheet operation yield high return in terms of commission, discount, fees etc. So these are very important to the commercial banks. In case of NSBIBL has been found failure in utilizing the modern fee based off-balance sheet activities to the maximum possible extent in comparison to the SCBL. So, NSBIBL has strongly recommended enhancing off balance sheet transactions in the days to come.

- Out of working fund, SCBL has not invested its more funds as total investment in comparison to the NSBIBL. Though, the percentage of invested by all three banks have very nominal. So, it is recommended to all two banks to invest their more funds in different types of companies in different areas.

- Portfolio condition of all three banks should be examined carefully from time to time and attention should be made to maintain equilibrium in the portfolio condition as far as possible. So it can be said "all eggs should not be kept in the same basket." The banks should make continuous efforts to explore new, competitive and high yielding investment opportunities to optimize their investment portfolio.

- In terms of recovery of loan of NSBIBL is worse in comparison to SCBL. The loan loss ratio is comparatively high that makes negative impact on profit. It may be facing a log of problems on recovering loans. It has large non-performing asset as loan unrecovered. Therefore it is recommended to apply loan recovery act that would help to realize overdue loan in time.

- Most of the joint venture banks have focused their banking services especially to big clients such as multinational companies, largescale industries, manufactures and exporters of garments and carpets. The minimum level bank balance and the amount needed to open an account in two banks are very high amount. So, small depositors are very far from enjoying the banking facilities provided by such joint venture banks. So, all two banks should open its doors to the small depositors and entrepreneurs for promoting and mobilizing small investors' funds.

- The project oriented approach has to encouraged in lending business of the banks, in which, security is not necessary, risk is high but the project is important from the point of view of national economy. The project should be allowed to make them capable to generate their own funds and to repay loans timely. So, it is recommended to all three banks should followed project oriented approach for their efficient performances. Because the chance of loan loss can be minimize by the project-oriented approach.

- One of the main objectives to operate joint venture banks of Nepal is to boost foreign investments in to the kingdom. However, these three banks don't seem to be successful in this aspect. Therefore, all two banks is recommended to activate for increasing foreign investment in Nepal by means of their wide international banking networks.

- Thought joint venture banks have played important role in the economic development of the country, they are not efficiently playing the role of a merchant bank. So, the three banks is suggested to play the role of financial intermediary and merchant banking like underwriting of securities brokers, development of capital markets and supportive role to the security exchange center.

- In the light of growing competition in the banking sector, the business of the bank should be customer oriented. It should strengthen and activate e its marketing function, as it is an effective tool of attracting and retaining customers. For this purpose, the banks should develop an "Innovative approach to Bank Marketing" and formulate new strategies of serving customers in a more convenient and satisfactory way.

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## APPENDIX-I (a)

### Cash and Bank Balance to Total Deposit Ratio

**Rs. In Million**

| Fiscal year | SCBL | | | NSBIBL | | |
|---|---|---|---|---|---|---|
| | Cash & bank balance | Total deposit | Ratio (%) | Cash &bank balance | Total deposit | Ratio (%) |
| 2005/06 | 2023.16 | 21161.14 | 9.56 | 864.43 | 7198.33 | 12.00 |
| 2006/07 | 1111.12 | 19335.09 | 5.75 | 723.74 | 8654.77 | 8.36 |
| 2007/08 | 1276.24 | 23061.03 | 5.53 | 1118.16 | 11002.04 | 10.16 |
| 2008/09 | 2021.02 | 24647.02 | 8.20 | 1122.69 | 11445.29 | 9.81 |
| 2009/010 | 2050.24 | 29743.92 | 6.89 | 1342.96 | 13715.39 | 9.79 |

Source: Annual report of Banks.

**Calculation**

| Fiscal Year | SCBL | | | NSBIBL | | |
|---|---|---|---|---|---|---|
| | X | $(X-\bar{X})$ | $(X-\bar{X})^2$ | X | $(X-\bar{X})$ | $(X-\bar{X})^2$ |
| 2005/06 | 9.56 | 2.37 | 5.6169 | 12 | 1.76 | 3.0976 |
| 2006/07 | 5.75 | -1.44 | 2.0736 | 8.36 | -1.88 | 3.5344 |
| 2007/08 | 5.53 | -1.66 | 2.7556 | 10.16 | -0.08 | 0.0064 |
| 2008/09 | 8.2 | 1.01 | 1.0201 | 9.81 | -0.43 | 0.1849 |
| 2009/010 | 6.89 | -0.3 | 0.09 | 9.79 | -0.45 | 0.2025 |
| **Total** | **35.93** | **-0.02** | **$\sum(X-\bar{X})^2$ =11.5562** | **50.12** | **-1.08** | **$\sum(X-\bar{X})^2$ = 7.0258** |

Calculations mean Standard Deviations and Coefficient of Variance of SCBL

Arithmetic mean (AM) is given by, $\overline{X} = \frac{\sum X}{n} = 7.19$

Standard Deviation ($\sigma$) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ $\sqrt{\frac{11.556}{5-1}} = 1.7$

C.V = $\frac{\sigma}{\overline{X}} \times 100\%$ = $\frac{1.7}{7.19} \times 100\%$ =23.643

Calculations mean Standard Deviations and Coefficient of Variance of NSBIBL

Arithmetic mean (AM) is given by, $\overline{X} = \frac{\sum X}{n}$ = 10.24

Standard Deviation ($\sigma$) = $\sqrt{\frac{\Sigma(x-\overline{x})^2}{n-1}}$ = 1.3

C.V = $\frac{\sigma}{\overline{X}} \times 100\%$ = 12.97

## APPENDIX-I (b)

## Cash and Bank Balance to Current Assets Ratio

**(Rs. In Million)**

| Fiscal year | SCBL | | | NSBIBL | | |
|---|---|---|---|---|---|---|
| | Cash & bank balance | Current assets | Ratio(%) | Cash &bank balance | Current assets | Ratio(%) |
| 2005/06 | 2023.16 | 23494.63 | 8.61 | 864.43 | 8345.34 | 10.36 |
| 2006/07 | 1111.12 | 19324.84 | 5.75 | 723.74 | 10258.98 | 7.05 |
| 2007/08 | 1276.24 | 20436.82 | 6.24 | 1118.16 | 12480.24 | 8.96 |
| 2008/09 | 2021.02 | 27435.60 | 7.37 | 1122.69 | 12260.62 | 9.16 |
| 2009/010 | 2050.24 | 23124.89 | 7.29 | 1342.96 | 1444320.73 | 9.38 |

**Source: Annual report of Banks.**

**Calculation**

| Fiscal Year | SCBL | | | NSBIBL | | |
|---|---|---|---|---|---|---|
| | **X** | **$(X-\bar{X})$** | **$(X-\bar{X})^2$** | **X** | **$(X-\bar{X})$** | **$(X-\bar{X})^2$** |
| 2005/06 | 8.61 | 1.56 | 2.4336 | 10.36 | 1.378 | 1.898884 |
| 2006/07 | 5.75 | -1.3 | 1.69 | 7.05 | -1.932 | 3.732624 |
| 2007/08 | 6.24 | -0.81 | 0.6561 | 8.96 | -0.022 | 0.000484 |
| 2008/09 | 7.37 | 0.32 | 0.1024 | 9.16 | 0.178 | 0.031684 |
| 2009/010 | 7.29 | 0.24 | 0.0576 | 9.38 | 0.398 | 0.158404 |
| **Total** | **35.26** | | **$(X-\bar{X})2 = 4.9397$** | **44.91** | | **$(X-\bar{X})2 = 5.82208$** |

Calculations mean Standard Deviations and Coefficient of Variance of SCBL

Arithmetic mean (AM) is given by, $\overline{X} = \frac{\sum X}{n} = 7.05$

Standard Deviation ($\sigma$) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}} = 1.11$

C.V = $\frac{\sigma}{\bar{X}} \times 100\% = 15.74$

Calculations mean Standard Deviations and Coefficient of Variance of NSBIBL

Arithmetic mean (AM) is given by, $\overline{X} = \frac{\sum X}{n} = 8.982$

Standard Deviation ($\sigma$) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}} = 1.21$

C.V = $\frac{\sigma}{\bar{X}} \times 100\% = 13.47$

## APPENDIX-I (c)

### Investment in Government Securities to Current Asset Ratio

(Rs. In Millions)

| Fiscal year | SCBL | | | NSBIBL | | |
|---|---|---|---|---|---|---|
| | Inv. In govt. securi | Current assets | Ratio(%) | Inv. In govt. securi | Current assets | Ratio(%) |
| 2005/06 | 7948.22 | 23494.63 | 27.28 | 1871.46 | 8345.34 | 22.43 |
| 2006/07 | 6722.83 | 19324.84 | 42.40 | 2588.14 | 10258.98 | 25.23 |
| 2007/08 | 7312.29 | 20436.82 | 43.72 | 3279.81 | 12480.24 | 26.28 |
| 2008/09 | 9865.84 | 27435.60 | 38.28 | 3462.40 | 12260.62 | 22.24 |
| 2009/010 | 10141.83 | 23124.89 | 48.78 | 4127.23 | 14320.73 | 28.83 |

**Source: Annual report of Banks**

**Calculation**

| Fiscal Year | SCBL | | | NSBIBL | | |
|---|---|---|---|---|---|---|
| | X | $(X-\bar{X})$ | $(X-\bar{X})^2$ | X | $(X-\bar{X})$ | $(X-\bar{X})^2$ |
| 2005/06 | 33.83 | -1.47 | 2.1609 | 22.43 | -3.77 | 14.2129 |
| 2006/07 | 34.79 | -0.51 | 0.2601 | 25.23 | -0.97 | 0.9409 |
| 2007/08 | 35.78 | 0.48 | 0.2304 | 26.28 | 0.08 | 0.0064 |
| 2008/09 | 35.96 | 0.66 | 0.4356 | 28.24 | 2.04 | 4.1616 |
| 2009/010 | 36.16 | 0.86 | 0.7396 | 28.82 | 2.62 | 6.8644 |
| **Total** | **176.52** | | **$(X-\bar{X})2$ = 3.8266** | **131** | | **$(X-\bar{X})2$ = 26.1862** |

Calculations mean Standard Deviations and Coefficient of Variance of SCBL

Arithmetic mean (AM) is given by, $\bar{X} = \frac{\sum X}{n}$ = 35.3

Standard Deviation ($\sigma$) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ = 0.98

C.V = $\frac{\sigma}{\bar{X}} \times 100\%$ = 2.78

Calculations mean Standard Deviations and Coefficient of Variance of NSBIBL

Arithmetic mean (AM) is given by, $\bar{X} = \frac{\Sigma X}{n}$ = 26.62

Standard Deviation ($\sigma$) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ = 2.56

C.V = $\frac{\sigma}{\bar{X}} \times 100\%$ = 9.77

## APPENDIX-I (d)

### Loan and Advance to Current Asset Ratio

(Rs. In Million)

| Fiscal year | SCBL | | | NSBIBL | | |
|---|---|---|---|---|---|---|
| | Loan & advances | Current assets | Ratio (%) | Loan & advances | Current assets | Ratio(%) |
| 2005/06 | 6410.24 | 23494.63 | 27.28 | 5143.66 | 8345.34 | 61.64 |
| 2006/07 | 8143.21 | 19324.84 | 42.40 | 6213.87 | 10258.98 | 60.57 |
| 2007/08 | 8935.42 | 20436.82 | 43.72 | 7626.74 | 12480.24 | 61.11 |
| 2008/09 | 10502.64 | 27435.60 | 38.28 | 9460.45 | 12260.62 | 77.26 |
| 2009/010 | 13718.60 | 23124.89 | 48.78 | 12113.70 | 14320.73 | 84.59 |

**Source: Annual report of Banks**

**Calculation**

| Fiscal Year | SCBL | | | NSBIBL | | |
|---|---|---|---|---|---|---|
| | **X** | **(X-$\bar{X}$)** | **(X-$\bar{X}$)$^2$** | **X** | **(X-$\bar{X}$)** | **(X-$\bar{X}$)$^2$** |
| 2005/06 | 27.28 | -12.81 | 164.0961 | 61.64 | 1.63 | 2.6569 |
| 2006/07 | 42.4 | 2.31 | 5.3361 | 60.57 | 0.56 | 0.3136 |
| 2007/08 | 43.72 | 3.63 | 13.1769 | 61.11 | 1.1 | 1.21 |
| 2008/09 | 38.28 | -1.81 | 3.2761 | 77.16 | 17.15 | 294.1225 |
| 2009/010 | 48.78 | 8.69 | 75.5161 | 84.59 | 24.58 | 604.1764 |
| **Total** | **200.46** | **0.01** | **(X-$\bar{X}$)2 = 261.4013** | **345.07** | | **(X-$\bar{X}$)2 = 902.4794** |

Calculations mean Standard Deviations and Coefficient of Variance of SCBL

Arithmetic mean (AM) is given by, $\overline{X} = \frac{\sum X}{n} = 40.09$

Standard Deviation ($\sigma$) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}} = 8.08$

C.V = $\frac{\sigma}{\bar{X}} \times 100\% = 20.15$

Calculations mean Standard Deviations and Coefficient of Variance of NSBIBL

Arithmetic mean (AM) is given by, $\overline{X} = \frac{\sum X}{n} = 60.01$

Standard Deviation ($\sigma$) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}} = 11.15$

C.V = $\frac{\sigma}{\bar{X}} \times 100\% = 18.58$

## APPENDIX-I (e)

### Loan and Advances to Total Deposit Ratio

*(Rs. In Million)*

| fiscal year | SCBL | | | NSBIBL | | |
|---|---|---|---|---|---|---|
| | Loan & advances | Total deposit | Ratio(%) | Loan & advances | Total deposit | Ratio(%) |
| 2005/06 | 6410.24 | 21161.14 | 30.29 | 5143.66 | 7198.33 | 71.46 |
| 2006/07 | 8143.21 | 19335.09 | 42.12 | 6213.87 | 8654.77 | 71.80 |
| 2007/08 | 8935.42 | 23061.03 | 38.75 | 7626.74 | 11002.04 | 69.32 |
| 2008/09 | 10502.64 | 24647.01 | 42.61 | 9460.45 | 1145.29 | 82.66 |
| 2009/010 | 13718.60 | 29743.92 | 46.12 | 12113.70 | 13715.39 | 88.32 |

**Source: Annual report of Banks**

**Calculation**

| Fiscal Year | SCBL | | | NSBIBL | | |
|---|---|---|---|---|---|---|
| | X | $(X-\bar{X})$ | $(X-\bar{X})^2$ | X | $(X-\bar{X})$ | $(X-\bar{X})^2$ |
| 2005/06 | 30.29 | -9.49 | 90.0601 | 71.46 | -5.25 | 27.5625 |
| 2006/07 | 42.12 | 2.34 | 5.4756 | 71.8 | -4.91 | 24.1081 |
| 2007/08 | 38.75 | -1.03 | 1.0609 | 69.32 | -7.39 | 54.6121 |
| 2008/09 | 42.61 | 2.83 | 8.0089 | 82.6 | 5.89 | 34.6921 |
| 2009/010 | 46.12 | 6.34 | 40.1956 | 88.32 | 11.61 | 134.7921 |
| **Total** | **199.89** | | **$(X-\bar{X})^2$ = 144.8011** | **383.5** | | **$(X-\bar{X})^2$ = 275.7669** |

Calculations mean Standard Deviations and Coefficient of Variance of SCBL

Arithmetic mean (AM) is given by, $\bar{X} = \frac{\sum X}{n}$ = 39.78

Standard Deviation ($\sigma$) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ = 6.01

C.V = $\frac{\sigma}{\overline{X}} \times 100\%$ = 15.11

Calculations mean Standard Deviations and Coefficient of Variance of NSBIBL

Arithmetic mean (AM) is given by, $\overline{X} = \frac{\sum X}{n}$ = 76.71

Standard Deviation ($\sigma$) = $\sqrt{\frac{\Sigma(x-\overline{x})^2}{n-1}}$ = 8.30

C.V = $\frac{\sigma}{\overline{X}} \times 100\%$ = 10.82

## APPENDIX-I (f)

### Total Investment to Total Deposit Ratio

(Rs. In Millions)

| Fiscal year | SCBL | | | NSBIBL | | |
|---|---|---|---|---|---|---|
| | Total investment | Total deposit | Ratio(%) | Total investment | Total deposit | Ratio(%) |
| 2005/06 | 1135.68 | 21161.14 | 53.67 | 1907.52 | 7198.33 | 26.50 |
| 2006/07 | 9702.55 | 19335.09 | 50.13 | 2607.68 | 8654.77 | 30.13 |
| 2007/08 | 12838.56 | 23061.03 | 55.67 | 3620.78 | 11002.04 | 32.91 |
| 2008/09 | 13553.23 | 24647.01 | 54.99 | 2659.45 | 1145.29 | 23.24 |
| 2009/010 | 13902.82 | 29743.92 | 46.74 | 3088.89 | 13715.39 | 22.52 |
| | | | | | | |
| | | | | | | |

**Source: Annual report of Banks**

**Calculation**

| Fiscal Year | SCBL | | | NSBIBL | | |
|---|---|---|---|---|---|---|
| | X | $(X-\bar{X})$ | $(X-\bar{X})^2$ | X | $(X-\bar{X})$ | $(X-\bar{X})^2$ |
| 2005/06 | 53.67 | 1.43 | 2.0449 | 26.5 | -0.56 | 0.3136 |
| 2006/07 | 50.13 | -2.11 | 4.4521 | 30.13 | 3.07 | 9.4249 |
| 2007/08 | 55.67 | 3.43 | 11.7649 | 32.91 | 5.85 | 34.2225 |
| 2008/09 | 54.99 | 2.75 | 7.5625 | 23.24 | -3.82 | 14.5924 |
| 2009/010 | 46.74 | -5.5 | 30.25 | 22.52 | -4.54 | 20.6116 |
| **Total** | **261.2** | | **$(X-\bar{X})^2$ = 56.0744** | **135.3** | | **$(X-\bar{X})^2$ = 79.165** |

Calculations mean Standard Deviations and Coefficient of Variance of SCBL

Arithmetic mean (AM) is given by, $\overline{X} = \frac{\sum X}{n}$ = 52.24

Standard Deviation ($\sigma$) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ = 3.74

C.V = $\frac{\sigma}{\bar{X}} \times 100\%$ = 7.16

Calculations mean Standard Deviations and Coefficient of Variance of NSBIBL

Arithmetic mean (AM) is given by, $\overline{X} = \frac{\sum X}{n}$ = 27.06

Standard Deviation ($\sigma$) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ = 4.45

C.V = $\frac{\sigma}{\bar{X}} \times 100\%$ = 16.44

**APPENDIX-I (g)**

**Loan and Advance to Total Working Fund Ratio**

(Rs. In Millions)

| fiscal year | SCBL | | | NSBIBL | | |
|---|---|---|---|---|---|---|
| | Loan & advances | Total working fund | Ratio(%) | Loan & advances | Total working fund | Ratio(%) |
| 2005/06 | 6410.24 | 26342.06 | 27.11 | 5143.66 | 8440.40 | 60.94 |
| 2006/07 | 8143.21 | 21893.57 | 37.19 | 6213.87 | 10345.37 | 60.06 |
| 2007/08 | 8935.42 | 24228.11 | 36.88 | 7626.74 | 11864.66 | 64.28 |
| 2008/09 | 10502.64 | 26244.98 | 40.04 | 9460.45 | 13760.26 | 68.75 |
| 2009/010 | 13718.60 | 27340.21 | 50.17 | 12113.70 | 14251.40 | 85.00 |

**Source: Annual report of Banks**

**Calculation**

| Fiscal Year | SCBL | | | NSBIBL | | |
|---|---|---|---|---|---|---|
| | X | $(X-\bar{X})$ | $(X-\bar{X})^2$ | X | $(X-\bar{X})$ | $(X-\bar{X})^2$ |
| 2005/06 | 27.11 | -11.17 | 124.7689 | 60.94 | -6.87 | 47.1969 |
| 2006/07 | 37.199 | -1.081 | 1.168561 | 60.06 | -7.75 | 60.0625 |
| 2007/08 | 36.88 | -1.4 | 1.96 | 64.28 | -3.53 | 12.4609 |
| 2008/09 | 40.04 | 1.76 | 3.0976 | 68.75 | 0.94 | 0.8836 |
| 2009/010 | 50.17 | 11.89 | 141.3721 | 85 | 17.19 | 295.4961 |
| **Total** | **191.399** | | **$(X-\bar{X})^2$ = 272.367161** | **339.03** | | **$(X-\bar{X})^2$ = 416.1** |

Calculations mean Standard Deviations and Coefficient of Variance of SCBL

Arithmetic mean (AM) is given by, $\bar{X} = \frac{\sum X}{n}$ = 38.28

Standard Deviation ($\sigma$) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ = 8.25

C.V = $\frac{\sigma}{\overline{X}} \times 100\%$ = 21.55

Calculations mean Standard Deviations and Coefficient of Variance of NSBIBL

Arithmetic mean (AM) is given by, $\overline{X} = \frac{\sum X}{n}$ = 67.81

Standard Deviation ($\sigma$) = $\sqrt{\frac{\Sigma(x-\overline{x})^2}{n-1}}$ = 10.20

C.V = $\frac{\sigma}{\overline{X}} \times 100\%$ = 15.04

## APPENDIX-I (h)

### Investment of Government Securities to Total Working Fund Ratio

(Rs. In Millions)

| Fiscal year | SCBL | | | NSBIBL | | |
|---|---|---|---|---|---|---|
| | Inv.in govt. securi | Total working fund | Ratio(%) | Inv.in govt. securi | Total working fund | Ratio(%) |
| 2004/05 | 7948.22 | 26342.06 | 33.62 | 1871.46 | 8440.40 | 22.17 |
| 2005/06 | 6722.83 | 21893.57 | 32.90 | 2588.14 | 10345.37 | 25.02 |
| 2006/07 | 7312.29 | 24228.11 | 30.18 | 3279.81 | 11864.66 | 27.64 |
| 2007/08 | 9865.84 | 26244.98 | 37.59 | 3464.40 | 13760.26 | 25.16 |
| 2008/09 | 10141.83 | 27340.21 | 37.09 | 4127.23 | 14251.40 | 28.96 |

Source: Annual report of Banks

**Calculation**

| Fiscal Year | SCBL | | | NSBIBL | | |
|---|---|---|---|---|---|---|
| | **X** | **$(X-\bar{X})$** | **$(X-\bar{X})^2$** | **X** | **$(X-\bar{X})$** | **$(X-\bar{X})^2$** |
| 2005/06 | 33.62 | -0.46 | 0.2116 | 22.17 | -3.62 | 13.1044 |
| 2006/07 | 32.9 | -1.18 | 1.3924 | 25.02 | -0.77 | 0.5929 |
| 2007/08 | 30.18 | -3.9 | 15.21 | 27.64 | 1.85 | 3.4225 |
| 2008/09 | 37.59 | 3.51 | 12.3201 | 25.46 | -0.33 | 0.1089 |
| 2009/010 | 37.09 | 3.01 | 9.0601 | 28.96 | 3.17 | 10.0489 |
| **Total** | **171.38** | | **$(X-\bar{X})^2$ = 38.1942** | **129.25** | | **$(X-\bar{X})^2$ = 27.2776** |

Calculations mean Standard Deviations and Coefficient of Variance of SCBL

Arithmetic mean (AM) is given by, $\bar{X} = \frac{\sum X}{n}$ = 34.08

Standard Deviation ($\sigma$) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ = 3.08

C.V = $\frac{\sigma}{\bar{X}} \times 100\%$ = 8.98

Calculations mean Standard Deviations and Coefficient of Variance of NSBIBL

Arithmetic mean (AM) is given by, $\bar{X} = \frac{\sum X}{n}$ = 25.79

Standard Deviation ($\sigma$) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ = 2.61

C.V = $\frac{\sigma}{\bar{X}} \times 100\%$ = 10.12

## APPENDIX-I (i)

### Investment on Share & Debenture to Total Working Fund Ratio

(Rs. In Million)

| Fiscal year | SCBL | | | NSBIBL | | |
|---|---|---|---|---|---|---|
| | Inv.in share & debe. | Total working fund | Ratio(%) | Inv.in share & debe. | Total working fund | Ratio(%) |
| 2005/06 | 11.19 | 26342.06 | 0.05 | 17.89 | 8440.40 | 0.21 |
| 2006/07 | 13.34 | 21893.57 | 0.06 | 19.54 | 10345.37 | 0.19 |
| 2007/08 | 9.69 | 24228.11 | 0.064 | 23.73 | 11864.66 | 0.20 |
| 2008/09 | 18.37 | 26244.98 | 0.07 | 30.27 | 13760.26 | 0.22 |
| 2009/010 | 21.87 | 27340.21 | 0.08 | 29.93 | 14251.40 | 0.21 |

Source: Annual report of Banks

**Calculation**

| Fiscal Year | SCBL | | | NSBIBL | | |
|---|---|---|---|---|---|---|
| | X | $(X-\bar{X})$ | $(X-\bar{X})^2$ | X | $(X-\bar{X})$ | $(X-\bar{X})^2$ |
| 2005/06 | 0.05 | -0.01 | 0.0001 | 0.22 | 0.01 | 0.0001 |
| 2006/07 | 0.06 | 0 | 0 | 0.19 | -0.02 | 0.0004 |
| 2007/08 | 0.04 | -0.02 | 0.0004 | 0.2 | -0.01 | 1E-04 |
| 2008/09 | 0.07 | 0.01 | 0.0001 | 0.22 | 0.01 | 0.0001 |
| 2009/010 | 0.08 | 0.02 | 0.0004 | 0.21 | 0 | 0 |
| Total | | | $(X-\bar{X})^2 = 0.001$ | | | $(X-\bar{X})^2 = 0.0007$ |

Calculations mean Standard Deviations and Coefficient of Variance of SCBL

Arithmetic mean (AM) is given by, $\bar{X} = \frac{\sum X}{n} = 0.06$

Standard Deviation ($\sigma$) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ = 0.02

C.V = $\frac{\sigma}{\bar{X}} \times 100\%$ = 33.33

Calculations mean Standard Deviations and Coefficient of Variance of NSBIBL

Arithmetic mean (AM) is given by, $\overline{X} = \frac{\Sigma X}{n}$ = 0.21

Standard Deviation ($\sigma$) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ = 0.01

C.V = $\frac{\sigma}{\bar{X}} \times 100\%$ = 4.76

**APPENDIX-I (j)**

**Return on Total Working Fund Ratio (%)**

(Rs. In Millions)

| Fiscal year | SCBL | | | NSBIBL | | |
|---|---|---|---|---|---|---|
| | Net profit | Total working fund | Ratio(%) | Net profit | Total working fund | Ratio(%) |
| 2005/06 | 537.80 | 26342.06 | 2.27 | 60.86 | 8440.40 | 0.72 |
| 2006/07 | 537.90 | 21893.57 | 2.46 | 4.60 | 10345.37 | 0.04 |
| 2007/08 | 658.76 | 24228.11 | 2.72 | 11.70 | 11864.66 | 0.10 |
| 2008/09 | 691.67 | 26244.98 | 2.64 | 25.49 | 13760.26 | 0.09 |
| 2009/010 | 818.92 | 27340.21 | 3.00 | 24.78 | 14251.40 | 0.17 |

Source: Annual report of Banks

**Calculation**

| Fiscal Year | SCBL | | | NSBIBL | | |
|---|---|---|---|---|---|---|
| | X | $(X-\bar{X})$ | $(X-\bar{X})^2$ | X | $(X-\bar{X})$ | $(X-\bar{X})^2$ |
| 2004/05 | 2.27 | -0.35 | 0.1225 | 2.27 | 2.03 | 4.1209 |
| 2005/06 | 2.46 | -0.16 | 0.0256 | 0.04 | -0.2 | 0.04 |
| 2006/07 | 2.72 | 0.1 | 0.01 | 0.1 | -0.14 | 0.0196 |
| 2007/08 | 2.64 | 0.02 | 0.0004 | 0.19 | -0.05 | 0.0025 |
| 2008/09 | 3 | 0.38 | 0.1444 | 0.17 | -0.07 | 0.0049 |
| **Total** | **13.09** | **-0.01** | **$(X-\bar{X})^2$ = 0.3029** | **2.77** | **1.57** | **$(X-\bar{X})^2$ = 4.1879** |

Calculations mean Standard Deviations and Coefficient of Variance of SCBL

Arithmetic mean (AM) is given by, $\bar{X} = \frac{\sum X}{n}$ = 2.62

Standard Deviation ($\sigma$) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ = 0.8

C.V = $\frac{\sigma}{\bar{X}} \times 100\%$ = 10.69

Calculations mean Standard Deviations and Coefficient of Variance of NSBIBL

Arithmetic mean (AM) is given by, $\bar{X} = \frac{\sum X}{n}$ = 0.24

Standard Deviation ($\sigma$) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ = 0.27

C.V = $\frac{\sigma}{\bar{X}} \times 100\%$ = 112.50

**APPENDIX-I (k)**

**Return on Loan and Advance Ratio**

*(Rs. In Millions)*

| Fiscal year | SCBL | | | NSBIBL | | |
|---|---|---|---|---|---|---|
| | Net profit | Loan & advances | Ratio(%) | Net profit | Loan & advances | Ratio(%) |
| 2005/06 | 537.80 | 6410.24 | 8.39 | 60.86 | 5143.66 | 1.18 |
| 2006/07 | 537.90 | 8143.21 | 6.57 | 4.60 | 6213.87 | 0.07 |
| 2007/08 | 65876.76 | 8935.42 | 7.37 | 11.70 | 7626.74 | 0.15 |
| 2008/09 | 691.67 | 10502.64 | 6.59 | 25.49 | 9460.45 | 0.27 |
| 2009/010 | 818.92 | 13718.60 | 5.97 | 24.78 | 12113.70 | 0.20 |

Source: Annual report of Banks

**Calculation**

| Fiscal Year | SCBL | | | NSBIBL | | |
|---|---|---|---|---|---|---|
| | X | $(X-\bar{X})$ | $(X-\bar{X})^2$ | X | $(X-\bar{X})$ | $(X-\bar{X})^2$ |
| 2005/06 | 8.39 | 1.41 | 1.9881 | 1.18 | 0.81 | 0.6561 |
| 2006/07 | 6.57 | -0.41 | 0.1681 | 0.07 | -0.3 | 0.09 |
| 2007/08 | 7.37 | 0.39 | 0.1521 | 0.15 | -0.22 | 0.0484 |
| 2008/09 | 6.59 | -0.39 | 0.1521 | 0.27 | -0.1 | 0.01 |
| 2009/010 | 5.97 | -1.01 | 1.0201 | 0.2 | -0.17 | 0.0289 |
| **Total** | **34.89** | **-0.01** | **$(X-\bar{X})^2$ = 3.4805** | **1.87** | | **$(X-\bar{X})^2$ = 0.8334** |

Calculations mean Standard Deviations and Coefficient of Variance of SCBL

Arithmetic mean (AM) is given by, $\bar{X} = \frac{\sum X}{n} = 6.98$

Standard Deviation ($\sigma$) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}} = 0.93$

C.V = $\frac{\sigma}{\overline{X}} \times 100\%$ = 13.32

Calculations mean Standard Deviations and Coefficient of Variance of NSBIBL

Arithmetic mean (AM) is given by, $\overline{X} = \frac{\Sigma X}{n}$ = 0.37

Standard Deviation ($\sigma$) = $\sqrt{\frac{\Sigma(x-\overline{x})^2}{n-1}}$ = 0.46

C.V = $\frac{\sigma}{\overline{X}} \times 100\%$ = 124.32

**APPENDIX-I (l)**

**Total Interest earned to Total Working Fund Ratio**

(Rs. In Millions)

| fiscal year | SCBL | | | NSBIBL | | |
|---|---|---|---|---|---|---|
| | Interest earned | Total working fund | Ratio(%) | Interest enrned | Total working fund | Ratio(%) |
| 2005/06 | 1042.18 | 26342.06 | 4041 | 493.60 | 8440.40 | 5.85 |
| 2006/07 | 1038.68 | 21893.57 | 4.84 | 578.37 | 10345.37 | 5.59 |
| 2007/08 | 1189.60 | 24228.11 | 4.91 | 708.32 | 11864.66 | 5.97 |
| 2008/09 | 1411.98 | 26244.98 | 5.38 | 831.12 | 13760.26 | 6.04 |
| 2009/010 | 1591.20 | 27340.21 | 5.82 | 970.52 | 14251.40 | 6.81 |

Source: Annual report of Banks

**Calculation**

| Fiscal Year | SCBL | | | NSBIBL | | |
|---|---|---|---|---|---|---|
| | X | $(X-\bar{X})$ | $(X-\bar{X})^2$ | X | $(X-\bar{X})$ | $(X-\bar{X})^2$ |
| 2005/06 | 4.41 | -0.66 | 0.4356 | 5.85 | -0.2 | 0.04 |
| 2006/07 | 4.48 | -0.59 | 0.3481 | 5.59 | -0.46 | 0.2116 |
| 2007/08 | 4.19 | -0.88 | 0.7744 | 5.97 | -0.08 | 0.0064 |
| 2008/09 | 5.38 | 0.31 | 0.0961 | 6.04 | -0.01 | 1E-04 |
| 2009/010 | 5.82 | 0.75 | 0.5625 | 6.81 | 0.76 | 0.5776 |
| | 24.28 | -1.07 | $(X-\bar{X})^2$ = 2.2167 | 30.26 | 0.01 | $(X-\bar{X})^2$ = 0.8357 |

Calculations mean Standard Deviations and Coefficient of Variance of SCBL

Arithmetic mean (AM) is given by, $\bar{X} = \frac{\sum X}{n}$ = 5.07

Standard Deviation ($\sigma$) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ = 0.54

C.V = $\frac{\sigma}{\bar{X}} \times 100\%$ = 10.65

Calculations mean Standard Deviations and Coefficient of Variance of NSBIBL

Arithmetic mean (AM) is given by, $\bar{X} = \frac{\sum X}{n}$ = 6.05

Standard Deviation ($\sigma$) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ = 0.46

C.V = $\frac{\sigma}{\bar{X}} \times 100\%$ = 7.60

**APPENDIX-I (m)**

**Total Interest Paid to Total Working Fund Ratio**

(Rs. In Million)

| fiscal year | SCBL | | | NSBIBL | | |
|---|---|---|---|---|---|---|
| | Cash & bank bal | Total deposit | Ratio(%) | Cash & bank bal | Total deposit | Ratio(%) |
| 2005/06 | 272.24 | 26342.06 | 1.15 | 255.92 | 8440.40 | 3.03 |
| 2006/07 | 254.12 | 21893.57 | 1.16 | 258.43 | 10345.37 | 2.50 |
| 2007/08 | 303.20 | 24228.11 | 1.25 | 334.77 | 11864.66 | 2.82 |
| 2008/09 | 413.06 | 26244.98 | 1.57 | 412.26 | 13760.26 | 3.00 |
| 2009/010 | 471.73 | 27340.21 | 1.73 | 454.92 | 14251.40 | 3.12 |

Source: Annual report of Banks

**Calculation**

| Fiscal Year | SCBL | | | NSBIBL | | |
|---|---|---|---|---|---|---|
| | X | $(X-\bar{X})$ | $(X-\bar{X})^2$ | X | $(X-\bar{X})$ | $(X-\bar{X})^2$ |
| 2005/06 | 1.15 | -0.22 | 0.0484 | 3.03 | 0.14 | 0.0196 |
| 2006/07 | 1.16 | -0.21 | 0.0441 | 2.5 | -0.39 | 0.1521 |
| 2007/08 | 1.25 | -0.12 | 0.0144 | 2.82 | -0.07 | 0.0049 |
| 2008/09 | 1.57 | 0.2 | 0.04 | 3 | 0.11 | 0.0121 |
| 2009/010 | 1.73 | 0.36 | 0.1296 | 3.12 | 0.23 | 0.0529 |
| **Total** | **6.86** | **0.01** | **$(X-\bar{X})^2$ = 0.2765** | **14.47** | **0.02** | **$(X-\bar{X})^2$ = 0.2416** |

Calculations mean Standard Deviations and Coefficient of Variance of SCBL

Arithmetic mean (AM) is given by, $\overline{X} = \frac{\sum X}{n} = 1.37$

Standard Deviation ($\sigma$) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}} = 0.26$

C.V = $\frac{\sigma}{\overline{X}} \times 100\%$ = 18.98

Calculations mean Standard Deviations and Coefficient of Variance of NSBIBL

Arithmetic mean (AM) is given by, $\overline{X} = \frac{\sum X}{n}$ = 2.89

Standard Deviation ($\sigma$) = $\sqrt{\frac{\Sigma(x-\overline{x})^2}{n-1}}$ = 0.25

C.V = $\frac{\sigma}{\overline{X}} \times 100\%$ = 8.6

**APPENDIX-I (n)**

**Liquidity Risk Ratio**

(Rs. In Million)

| **fiscal year** | **SCBL** | | | **NSBIBL** | | |
|---|---|---|---|---|---|---|
| | **Cash & bank bal** | **Total deposit** | **Ratio (%)** | **Cash & bank bal** | **Total deposit** | **Ratio(%)** |
| 2005/06 | 2023.16 | 21161.14 | 9.56 | 864.43 | 7198.33 | 12.01 |
| 2006/07 | 1111.12 | 19335.09 | 5.75 | 723.74 | 8654.77 | 8.36 |
| 2007/08 | 1276.24 | 23061.03 | 5.53 | 1118.16 | 110002.04 | 10.16 |
| 2008/09 | 2021.02 | 24647.01 | 8.20 | 1122.69 | 1145.29 | 9.81 |
| 2009/010 | 2050.24 | 29743.92 | 6.89 | 1342.96 | 13715.39 | 9.79 |

Source: Annual report of Banks

**Calculation**

| Fiscal Year | SCBL | | | NSBIBL | | |
|---|---|---|---|---|---|---|
| | X | $(X-\bar{X})$ | $(X-\bar{X})^2$ | X | $(X-\bar{X})$ | $(X-\bar{X})^2$ |
| 2005/06 | 9.56 | 2.37 | 5.6169 | 12.01 | 1.98 | 3.9204 |
| 2006/07 | 5.75 | -1.44 | 2.0736 | 8.36 | -1.67 | 2.7889 |
| 2007/08 | 5.53 | -1.66 | 2.7556 | 10.16 | 0.13 | 0.0169 |
| 2008/09 | 8.2 | 1.01 | 1.0201 | 9.81 | -0.22 | 0.0484 |
| 2009/010 | 6.89 | -0.3 | 0.09 | 9.79 | -0.24 | 0.0576 |
| Total | 35.93 | | $(X-\bar{X})^2$ = 11.5562 | 50.13 | | $(X-\bar{X})^2$ = 6.8322 |

Calculations mean Standard Deviations and Coefficient of Variance of SCBL

Arithmetic mean (AM) is given by, $\overline{X} = \frac{\sum X}{n}$ = 7.19

Standard Deviation ($\sigma$) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ = 1.70

C.V = $\frac{\sigma}{\bar{X}} \times 100\%$ = 23.64

Calculations mean Standard Deviations and Coefficient of Variance of NSBIBL

Arithmetic mean (AM) is given by, $\overline{X} = \frac{\sum X}{n}$ = 10.03

Standard Deviation ($\sigma$) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ = 1.31

C.V = $\frac{\sigma}{\bar{X}} \times 100\%$ = 13.06

**APPENDIX-I (o)**

**Credit Risk Ratio**

(Rs. In Million)

| fiscal year | SCBL | | | NSBIBL | | |
|---|---|---|---|---|---|---|
| | In investment + loan advances | Total assets | Ratio (%) | In investment loan advances | Total assets | Ratio (%) |
| 2005/06 | 17770.57 | 23494.63 | 75.17 | 7051.18 | 8345.34 | 83.54 |
| 2006/07 | 17845.76 | 19324.84 | 81.51 | 8821.56 | 10258.98 | 85.27 |
| 2007/08 | 21773.98 | 20436.82 | 84.50 | 11247.52 | 12480.24 | 86.28 |
| 2008/09 | 24055.87 | 27435.60 | 84.12 | 12119.9 | 12260.62 | 87.19 |
| 2009/010 | 27621.22 | 23124.89 | 82.86 | 15202.59 | 14320.73 | 88.45s |

Source: Annual report of Banks

**Calculation**

| Fiscal Year | SCBL | | | NSBIBL | | |
|---|---|---|---|---|---|---|
| | X | $(X-\bar{X})$ | $(X-\bar{X})^2$ | X | $(X-\bar{X})$ | $(X-\bar{X})^2$ |
| 2005/06 | 75.17 | -6.79 | 46.1041 | 83.54 | -2.61 | 6.8121 |
| 2006/07 | 81.51 | -0.45 | 0.2025 | 85.27 | -0.88 | 0.7744 |
| 2007/08 | 84.5 | 2.54 | 6.4516 | 86.28 | 0.13 | 0.0169 |
| 2008/09 | 84.12 | 2.16 | 4.6656 | 87.19 | 1.04 | 1.0816 |
| 2009/010 | 82.86 | 0.9 | 0.81 | 88.45 | 2.3 | 5.29 |
| **Total** | **408.16** | **-1.64** | **$(X-\bar{X})^2$ = 58.2338** | **430.73** | **-0.02** | **$(X-\bar{X})^2$ = 13.975** |

Calculations mean Standard Deviations and Coefficient of Variance of SCBL

Arithmetic mean (AM) is given by, $\overline{X} = \frac{\sum X}{n} = 81.96$

Standard Deviation ($\sigma$) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ = 3.80

C.V = $\frac{\sigma}{\bar{X}} \times 100\%$ = 6.64

Calculations mean Standard Deviations and Coefficient of Variance of NSBIBL

Arithmetic mean (AM) is given by, $\overline{X} = \frac{\sum X}{n}$ = 86.15

Standard Deviation ($\sigma$) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ = 1.87

C.V = $\frac{\sigma}{\bar{X}} \times 100\%$ = 2.17

## APPENDIX - II

### Sample Calculation of Growth Ratio of Total Deposit of NSBIBL

$g=\frac{Dn-Do}{Do}$

Where,

g = Growth rate

Dn = Total Deposit of Initial Year

D0 = Total Deposit of Previous Year

Here,

Growth for 2006/07

$$= \frac{8654.77 - 7198.33}{Do7198.33} = \frac{1456.44}{7198.33}$$

= 0.2023 or 20.23%

Similarly, other growth total has been calculated by applying similarly procedure.

## APPENDIX - III

### Sample Calculation of Correlation between Total Deposit and Total Investment of SCBL

| FY | Total deposit (x) | Total investment(Y) | X=x-x | Y=y-y | $X^2$ | $Y^2$ | xy |
|---|---|---|---|---|---|---|---|
| 2005/06 | 21161.46 | 11357.68 | -2432.24 | -913.29 | 5915791.42 | 834094.97 | 2221340.47 |
| 2006/07 | 19355.10 | 9702.55 | -4238.6 | -2568.42 | 17965729.96 | 6596771.02 | 10886505.01 |
| 2007/08 | 23061.03 | 12838.56 | -532.67 | 567.59 | 283737.33 | 322160.68 | -302338.17 |
| 2008/09 | 23061.03 | 12838.56 | -532.67 | 567.59 | 283737.33 | 322160.68 | -302338.17 |
| 2009/010 | 24647.0 | 13553.23 | 1053.3 | 1282.26 | 110944089 | 1644195.80 | 1350604.46 |
| | 29743.92 | 13902.82 | 6150.22 | 1631.85 | 37825206.05 | 2662940.95 | 10036236.51 |
| total | $\sum x = 117968.51$ | ∑y=61354.84 | ∑x=0 | ∑y=0 | $\sum x^{2}$ 63099905.65 | $\sum y^{2}$=12060163.46 | ∑xy=24192348.28 |

Here,

$\overline{X}_1 = \frac{\sum X}{n}$ $\overline{X}_1 = \frac{\sum Y}{n}$

23593.70 12270.97

Coefficient of correlation (r) can be calculated by using following formula:

$$r = \frac{n\sum xy - \sum x.\sum y}{\sqrt{N\sum x2 - (\sum x)2}\sqrt{N\sum y2 - (\sum y)2}}$$

$$r = \frac{5(24192348.28) - 0.0}{\sqrt{5(63099905.63) - 0}\sqrt{5(12060163.46) - 0}}$$

r=0.8770

Calculation of probable Error:

$$P.E. = 0.6745\ \frac{1 - r2}{\sqrt{n}}$$

Coefficient of determinations $R^2$= r×r

0.8770 × 0.8770

0.7691

Subtracting the value of $r^2$

P.E. = $0.6745\ \frac{1-0.7691}{\sqrt{5}}$

0.0695

6 P.E. = 6×0.0695

0.4172

Remaining coefficient of correlation has been calculated by following similar process.

## APPENDIX – IV

### Sample Calculation of Trend Value of Loan and Advances to Total Deposit Ratio of SCBL

| Year(t) | Ratio(y) | X=t-2005/06 | $X^2$ | xy | Yc=a+bx |
|---|---|---|---|---|---|
| 2005/06 | 30.29 | -2 | 4 | -60.58 | Yc=39.98+3.215*(-2)=33.55 |
| 2006/07 | 42.12 | -1 | 1 | -42.12 | Yc=39.98+3.215*(-1)=36.77 |
| 2007/08 | 38.75 | 0 | 0 | 0 | Yc=39.98+3.215*(0)=39.98 |
| 2008/09 | 42.61 | 1 | 1 | 42.61 | Yc=39.98+3.215*(1)=43.20.55 |
| 2009/010 | 46.12 | 2 | 4 | 92.24 | Yc=39.98+3.215*(2)=46.41 |
| total | $\sum y = 199.89.51$ | $\sum x=0$ | $\sum x^2=4$ | $\sum xy=32.15$ | |

We have, $Y_c = a+bx$

Where,

$a = \frac{\sum y}{n} = \frac{199.89}{5} = 39.98$

$b = \frac{\sum xy}{X2} = \frac{32.15}{10} = 3.215$

Now, trend line or straight line equation.

| Fiscal Year | X=t-2005/06 | Yc=39.98+3.215× x |
|---|---|---|
| 2005/06 | 3 | Yc=39.98+3.215×3= 49.63 |
| 2006/07 | 4 | Yc=39.98+3.215×4= 52.84 |
| 2007/08 | 5 | Yc=39.98+3.215×5= 56.06 |
| 2008/09 | 6 | Yc=39.98+3.215×6=59.27 |
| 2009/010 | 7 | Yc=39.98+3.215×7= 62.49 |