

A COMPARATIVE STUDY ON INVESTMENT POLICY OF STANDARD CHARTERED BANK AND NABIL BANK

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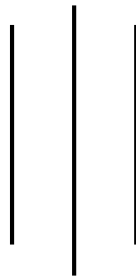
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RECOMMENDATION

This is to certify that the thesis

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A Comparative Study on Investment Policy of SCBNL and NABIL

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VIVA-VOCE SHEET

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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 for the Degree of Master of Business Studies (M.B.S.)

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Declaration

I here by declare that the work reported in this thesis entitled **“A Comparative Study on Investment Policy of SCBNL and NABIL”** submitted to Shanker Dev Campus, Faculty of Management, Tribhuvan University is my original work for the partial fulfillment Degree of Master of Business Studies (M.B.S.) under the supervision of Snehalata Kafle and Govinda Thapa, Lecturer of Shanker Dev Campus, Putalisadak, Kathmandu.

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I have tried to cover all the possible matters that I felt, important to sum up the "**A Comparative Study on Investment Policy of SCBNL and NABIL**". I am hopeful that this task will be helpful to the students of business studies & to those who want to make further researchers under this topic.

SHARMILA THAPA

Researcher

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ABBREVIATIONS

&	And
C.A.	Current Assets
C.L.	Current Liabilities
C.R.	Current Ratio
C.V.	Coefficient of Variation
EBL	Everest Bank Limited
F/Y	Fiscal Year
HBL	Himalayan Bank Limited
Ltd.	Limited
NABIL	Nabil Bank Limited
NRB	Nepal Rastra Bank
P.E.	Probable Error
ROA	Return on Assets
Rs.	Rupees
S.D	Standard Deviation
SCBNL	Standard Chartered Bank Limited
T.U	Tribhuvan University

CHAPTER – I

INTRODUCTION

1.1 Background of the Study

The development of the country highly depends upon its economic condition. The

well-organized financial system of the county has played a great role in this regard, it collects financial resources from public and provide fund from commercial and economic activities. Thus financial institutions provide capital to develop invest them into most desirable and highly yielding saving from the community and invest them into most desirable and highly yielding sector as a full to a process of economic development.

As financial institution, commercial bank is one of the every economy because they collect saving as a deposit and invest for development of trade, business and industry. Thus they contribute to the economic of the nation as whole.

Financial institutions have used both short term and long-term finance. The demand and supply of all short-term finance is called money market. Money market is designed for the making of short-term loans where individual and institution which temporary surplus of funds meet borrowers who have temporary cash shortage. The main functions of money market are mobilizing saving, short term loan, provide reserve, bridge the gap between receipts, effective monetary policy etc. o the money market is an important part of a commercial bank. Money market is playing a vital role to achieve the goal of every financial institution. There are different kinds of money market instrument used in Nepal, such as commercial paper, treasury bill, negotiable certificates of deposit, repurchase agreements, banker's acceptances, etc and there are the main instruments of money market.

The mobilization of domestic resources and the investment for production used to various sectors is an important factor. Commercial banks formulated sound investment policy, which eventually contributes to the economic growth of the country. The banking sector needs to play a vital development role to boost of the economy by adopting the growth oriented investment policy and building up the financial structure for future economic development. Formulation of sound investment policies and coordination and planned efforts push forward the forces of economic growth. So obviously investment of collect fund is the most important them for development of the

country.

Commercial banks are major financial institutions, which occupy quite an important place in the framework of every economy because they provide capital for the development of industry, trade and business and other resource deficit sectors contribute to the economic growth of the nation. Besides this commercial banks render numerous services to their customers in view of facilitating their economic and social life. Commercial banks formulate sound investment policies to make it more effective, which eventually contribute to the economic growth of a country. The sound policies help commercial banks maximize quality of investment and hereby achieve their own objective of profit maximization and social welfare. Formulation of sound investment policies and coordination and planned efforts push forward forces of economic growth.

Commercial banks should be careful while performing the credit creation function. Investment policy should ensure minimum risk and maximum profit from lending. Nepalese commercial banks lag behind fulfilling the responsibility to invest in the crucial sectors of the economy for the enlistment of the national economy. Thus the problem has become very serious one in developing countries like Nepal. This can be solved through formulation of sound investment policy. Good investment policy ensures maximum amount of investment to all sectors with proper utilization.

Investment is concerned with management of an investor's wealth which are the sum of current income and the present value of all future income. Funds to be invested come from assets already owned, borrowed money and saving or forgoing consumption. By forgoing today and investing the saving, investors expect to enhance their future consumption possibilities i.e. they are invested to increase wealth. Investors also seek to manage their wealth effectively obtaining the most from it, while protecting it from inflation, taxes and factors.

Cheney and Moses said, "The investment objective is to increase systematically the

individuals wealth defined as assets minus liabilities. The higher the level of desired wealth the higher the must be received , An investor seeking higher return must be willing to take higher level of risk is said to have been developed only after the Banking Act of 1833 A.D. provided freedom for the establishments of joint stock banks.

1.2 Profile of the Sample Bank

NABIL Bank

Nabil bank Limited, the first foreign joint venture bank of Nepal, started operations in July 1984. Nabil was incorporated with the objective of extending international standard modern services to various sectors of the society. Pursuing its objective, Nabil provides a full range of commercial banking services through its points of representation across the kingdom and over 170 reputed correspondent banks across the globe. Nabil, as a pioneer banking sector, represents products and making history of Nepal as it started an area of modern banking with customer satisfaction measured as a focal objective while doing business.

The promoters and their shares holding patterns of Nabil bank Ltd are as follows:

National Bank Limited , Bangladesh	-	50.00%
Financial Institutions	-	20.00%
Nepalese public	-	30.00%

Share Capital of Nabil Bank Ltd.

a. Authorised capital

5,000,000 ordinary shares @ Rs. 100 per share =Rs. 500,000,000

b. Issued capital

4,916,544 ordinary shares @ Rs.100 per share=Rs.491,654,400

c. Paid up capital

4,916,544 ordinary shares@ Rs.100 per share= Rs.491,654,000

The bank has changed its name as Nabil Bank Ltd.The Bank has expanded its banking services towards the different regions and part of the country by establishing

altogether 28 branches in urban as well as rural areas of the country .Beside banking facilities it provides other facilities too, they are given as

- Tele Banking
- Credit Card Facilities
- Safe Deposit locker
- International Trade and Bank Guarantee
- Western Union Money Transfer
- SWIFT(Society for Worldwide Inter bank financial Tele-communication)
- ATM (Automatic Teller machine)

Standard Chartered Bank Ltd.

Standard Chartered Bank Nepal Limited has been in operation in Nepal since 1987 when it was initially registered as a joint venture operation. Today the Bank is an integral part of Standard Chartered Group who has 75% ownership in the company with 25% shares owned by the Nepalese public. The Bank enjoys the status the largest international bank currently operating in Nepal.ANZ Grindlays bank PLC is managing the bank under joint venture and technical service agreement signed between ANZ Grindlays Bank Limited had changed its name as Standard Chartered Bank Limited (SCBNL).Its share subscription is given as:

ANZ Grindlays Bank PLC	-	50.00%
Nepal Bank Limited	-	33.37%
Nepalese Public	-	16.66%

Share Capital of SCBNL

a. Authorized capital

10,000,000 ordinary shares @ Rs.100 per share =Rs. 1000,000,000

b. Issued capital

5,000,000 ordinary shares @ Rs.100 per share =Rs. 500,000,000

c. Paid up capital

4,132,548 ordinary shares @ Rs.100 per share =Rs. 413,254,800

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

1.3 Statement of Problem

Various financial institutions have been established to assist the process of economic development of a country. All commercial banks have played a vital role by accepting deposits and providing various types of loans. Loan affects overall development of a country. The problem of lending has become very serious for a developing country like Nepal. This is due to lack of sound investment policy of commercial banks.

Investment greatly depends on saving behavior of citizens but the saving rate of Nepalese is very low because most of the citizens are below the poverty level. They don't have enough income for daily consumption. Some people hardly save some money but they want to save for future. Only few people invest in industries. People must be motivated to use their savings and mobilize their excess fund in economic activities.

Commercial banks are fond of making loans only on short term basis against moveable merchandise. There is hesitation to invest on long term projects because they are much more safety minded. So, they follow conservative loan policy, which is based on strong security. They are fond to be more interested in investing in less risky and highly liquid sectors i.e. treasury bills, development bonds and other securities. They keep high liquid position and flow lower fund to the productive sectors, this results into lower profitability to commercial banks and ignorance to the national economic growth process.

Nepalese commercial banks have not formulated their investment policy in an organized manner. They mainly rely upon the instructions and guidelines of Nepal Rastra Bank. They don't have clear view towards investment policy. There is a lack of sound investment policy of commercial bank. Furthermore, the implementation of policy is not in an effective manner.

With some 26 commercial banks and many development banks operating in Nepal, the market seems over crowded and the banks are now finding a tough competition among themselves .Since the barriers are not so high due to the governments liberal policy, this competition is expected to be more intense in the near future,as there is always the possibility of a new player entering this sector.

Profit is a must to a bank ,not only from the point of view of bank but also from the view of shareholders and depositors .And profit is only possible if the bank makes proper and safe investment policy .Every bank must make profit to survive in the competitive market where there is excess money and very little investment opportunity exists. Therefore, appropriate investment policy is the basic function of all the commercial banks ,joint venture banks and other financial institutions.

1. What is the relationship between investment, loan and advances, deposit, net profit and outside assets of sample Banks ?
2. What is the liquidity, assets management, profitability and risk position of the sample banks?
3. How can the collected funds be used by sample Banks?
4. What is the trend of investment, net profit, loan and advances and deposit of Funds?
5. What is the Growth position of the sample Banks?
6. Which sector is considered as more appropriate for making investment?
7. What is the reason of investing major portion of deposit in loan and advance?
8. What are the major problems of banks while making investment?
9. What is the reason behind investment in government securities?
10. Why do banks situated only in urban areas?

11. Are the policies and guidelines of Nepal Rastra Bank enough for smooth operation of CBs?
12. Is the prevailing interest rate on deposit/lending satisfactory?
13. Which factors should be considered while taking investment decision?

1.4 Objectives of the Study

The main objective of the study is to compare investment policy of concern banks and discuss the fund mobilization of the sample bank. The other specific objectives are as follows:

- a. To measure the relationship among total investment deposit, loan and advances, net profit and outside asset of SCBNL and NABIL.
- b. To analyze the trend of deposit utilization ,Total investment, Net profit, loan and advance of SCBNL and NABIL.
- c. To evaluate the liquidity, asset management efficiency, profitability, growth position and risk portion of SCBNL and NABIL.
- d. To find out the opinion of the people in context of investment decision, appropriate sector for making investment reason for investing major portion of deposit in loan and advance, major problems that bank are facing and the policies and guidelines of Nepal Rastra Bank.
- e. To provide suitable suggestion and recommendations for the improvement of the banks performance.

1.5 Significance of the Study

The proper mobilization and utilization of domestic resources become indispensable for any developing country aspiring for a sustainable economic development and there is no doubt that commercial banks have a vital role in the collection of dispersed small saving of Nepalese people and transforming them into meaningful capital investment .The success and prosperity of the bank relies heavily upon the successful investment of collected resources to the important sectors of the economy .Successful formulation and effective implementation of investment policy is the prime requisite for the successful performance of commercial banks. Good investment policy has a

positive impact on economic development to the country and vice-versa. So, the investment policy of commercial banks should be in accordance with the spirit of the economic upliftment of the people.

As mentioned above, there are many loopholes in the investment policies of commercial banks of Nepal which affects their performance to the great extent. It becomes everybody's concern when their performance doesn't seem so satisfactory in terms of utilizing its resource efficiently in productive sectors. The study of commercial banks investment policy focusing on interest rate structure, portfolio management and credit management will strive to disclose the internal weakness and furnish the ideas for improvement. Therefore, the researcher has undertaken the study to analyze the existing investment policy of commercial banks and point out the defects inherent in it and provide package of suggestion for its improvement.

1.6 Limitation of the Study

In the context of Nepal, data problem is a major problem for study. Every work has restriction and limitation. Without limitation work is not done sweet and taste. This study has been made by using certain methodology and based on available data which is related with the study.

This study is simply a partial requirement of M.B.S program so this study is limited by the following factors.

- a. This study focuses on investment aspects of banking performance only.
- b. This study is based on secondary data.
- c. This study has taken only concerned banks SCBNL and NABIL.
- d. Whole study is based on the data of five-year period.
- e. This study deals with limited financial and statistical tools.

1.7 Organization of the Study

The study is organized in the following chapters:

Chapter one: Introduction

Chapter one deals with the introduction part of the study which includes background of the study, profile of the sample bank ,statement of the problems, objective of the study ,significance of the study, limitation of the study and organization of the study.

Chapter 2: Review of Literature

It deals with the review of available articles, previous thesis, conceptual review related studies.

Chapter 3 : Research Methodology

It includes Research design, Population and Sample unit , Nature and Sources of data ,Data collection technique, Data presentation and analysis and statistical tools.

Chapter 4: Data Presentation and Analysis

This chapter deals with the presentation and analysis of data and scoring the empirical finding out the study through definite course of research methodology.

Chapter 5: Summary, Conclusion and Recommendations

This is the final chapter with discuss with the summary, conclusion of the whole study and recommendations in the basis of the study for improving the future performance of the sample banks.

CHAPTER II

REVIEW OF LITERATURE

In this chapter, the emphasis is given to review of major relevant literature on the deposit liabilities and their analyzes. Different definitions or opinions expressed by experts in respect of deposit mobilization are considered to be relevant for the proposed study. The relevant literature and articles were reviewed from international and national publications as well as unpublished report available from different libraries and institutions.

2.1 Conceptual Review

2.1.1 Banking System in Nepal

In Asia, the concept of bank can be found in early periods. "In the book of "Manu" an old Sanskrit law giver, has mentioned regulation about governing credit. He has even talked about judicial proceedings in which credit instruments were called for, interest of loans on bankers, usurers and even of the renewal of commercial papers".

In the country, the development of banking is relatively recent. The records of banking system in Nepal gives detail account of mixture of slow and steady evolution in the financial and global economy of Nepalese life. involvement of property owners, rich merchants, shopkeepers and other moneylenders has acted as fence to institutional credit in presence of unorganized money market.

Economic development is a complex process in which both private and public have important roles to play. Their roles are best played if they can be cast as partners in helping to achieve in a reinforcing partnership among all the elements of the international development community, multilateral, bilateral, the private sector specialized groups concerned individuals every one is involved all playing their roles against a background of appropriate economic and try, social policies. The word "development" involves not merely economic changes but also social and industrial changes in many underdeveloped countries. It calls for new sets of values and new

concepts of society and government no path to development is likely to be smooth. Banking is the base for economic development.

A bank is a business organization that receives and holds deposits of funds from others, makes loans or extends credits and transfer funds by written order of depositors. (The Encyclopedia American, 1984, vol.3)

In developing countries, there is always shortage of the capital for the developmental activities. There is need of development on all sectors it is not possible to handle and develop all the sectors by government alone at a time. Private also cannot undertake large business because the per capita income of the people is very low while their propensity to consume is very high. Due to their low income, saving is very low and capital formation is very low. Therefore, their saving is not sufficient for carrying on development works. Therefore, to achieve the higher rate of growth and per capital income, economic growth should be accelerated. Economic development so defined is necessary and sufficient to generate high rates up saving and investment. The generation of high rates of savings and thereby investment is possible only through the commercial banks. Banking is the epicenter of economic development.

Modern commercial bank is the product of historical development over many generations business such as goldsmith which had begun as providers of safe storage of gold of silver or such as private banks which made loans of the own wealth came to provide notes which accepted in exchange. Gradually more people leant to use these pieces of paper. Laws then granted some business men the privilege of issuing their own debts in the form of bank notes. The privilege of note issue became highly valuable, government, therefore, restricted the opportunities to prevent over issue in response to profit opportunities (Harris, 1965:25).

In spite of the establishment of the bank of England in 1694 A.D. the development of the modern banking institution had wait of another century and four decades until the passage of the banking Act of 1833 A.D. which provided freedom of establishment of the joint stock banks. While banking arouse far early and more rapidly in some countries than in other, it was only in the 19th century that the modern joint stock

commercial banking system developed in the leading countries of the world. When colonies were established in north and South America, old banking services were transferred to the new world (Vaidya, 1999:21).

Though the establishment of banking industry was very recent, some crude bank operations were in practice even in ancient times . In Nepalese Chronicle, it was recorded that the new era known as Nepal Sambat was introduced by Shankhadhar, a Sudra merchant of Kantipur in 879 or 880 A.D. after having paid all the outstanding debts in the country. In 8th century, Gunakama Dev had borrowed money to revuild the Kathmandu valley. In 11th century, during Malla regime there was evidence of professional moneylenders and bankers. During the regime of Jayasthiti malla, caste system was introduced based on profession, Tankadhari were such case, who used to provide loans and used to perform exchange trades. It is further believed that money lending business, particularly for financing the foreign trade with Tibet became quite popular during the regnn of Mallas. However, in the absence of any regulatory measures, the unscrupulous money lenders were known to have charged exorbitant rates of interest and other extra dues on loans and advances.

The establishment of the “Tejrath Adda” during the year 1887 A.D. was fully subscribed by the government of Kanthmandu valley, which played a vital role in the banking system. It helped the public by providing credit facilities at a very low rate of 5 pwecent . It provided credit especially on collateral of gold and silver. It ran successfully for four decades. Hence, the establishment of Tejrath Adda could be regarded as the foundation stone of banking in Nepal. An institutional banking system came into existence only in the 19th century with the establishment of Nepal Bank Ltd, in 1937 A.D. under “Nepal Bank Act, 1937 A.D.”

After the establishment of Nepal Bank Ltd.(NBL) , with the Imperial Bank of India came into existence under “ Nepal Bank Act , 1937 A.D.” as the first commercial bank of Nepal , inaugurated by his Majesty the King Tribhuvan on November 1937 A.D. with an authorized capital of Rs. 100 lakhs. The bank had the investment of both

government and the public at 51: 49 percent. Nevertheless, now government owns only 40% share with the suggestion of the World Bank to transfer the ownership to the private sector for better functioning of the bank.

In 1956 A.D. the central bank of Nepal Rastra Bank was established under NRB Act, 1955 A.D. The main purpose of this bank was to develop banking system in the country in order to promote trade, industry and agriculture as well as to circulate Nepalese currency all over the country.

Rastriya Banijya Bank (RBB), the second commercial bank was established in 1965 A.D. with an initial capital one crore. It is the largest commercial bank and plays a major role in the economy. It is fully owned by the government.

In 1959A.D. Nepal Industrial Development was set up to enhance the industrial sector with an initial capital of one crore. It performed functions like loan to industrial sector, technical assistance and trainings to industrial personnel invest in shares etc.

Being agriculture based economy, the government established co operative banks. It was established in 1963A.D. with an objective to develop agriculture sector of Nepal. Later, due to lack of funds and activities, it was converted into agriculture development (ADB) in 1967 A.D. with an initial of five crore, under ADB Act, 1967 A.D.

Later on, the government adopted the open sky policy with the view to develop the economy of the country, which of course attracted joint venture banks (JVBs) in Nepal . Here is a brief history of the JVBs in Nepal:

NABIL (earlier known as Nepal Arab Bank Ltd.) is the first commercial bank established in 1998 A.D. with a paid up capital of Rs.30 million. It was established with a partnership of 50% shares of NB International Bank of United Arab Emirates. It has the largest number of branches among the private banks i.e. 28 branches. In terms of staff employed also, it comes in first position.

Nepal Investment Bank (earlier known as Nepal Indosuez Bank Ltd.) is the second commercial bank established in 1985 A.D. with a partnership of 50% shares of Indosuez Bank Ltd of France. Currently, RBB has 15%, Rastriya Beema Sansthan's 15%, general public's 15%, and 50% shares of Nepalese investor. At present, the bank has 27 branches operating.

Standard Chartered Bank Nepal Ltd. (earlier known as Nepal Grindlays Bank Ltd.) came into existence in 1987 A.D. as a joint venture between ANZ Grindlays and Nepal Bank Ltd. that started with Rs.30 million paid up capital. The general public had 15% of share holdings at the time of its establishment. However, after the acquisition of the ANZ operation in the A.D. with region by the Standard Chartered, it has become a subsidiary of SC Grindlays, which holds 50% by Nepal Bank Ltd. The bank is currently providing services from 11 branches.

Himalayan Bank Ltd., a joint venture with the Habib Bank of Pakistan was established in 1993 A.D. with a paid up Capital of Rs.60 million. It was established with 80% share of Nepalese investors and 20% shares of Habib Bank of Pakistan. The bank has a total of 21 branches at present.

Nepal SBI Bank Ltd. is a joint venture between Employees Provident Fund and State Bank of India, wherein the general public has 30%, EPF 15%, ADB 5% AND THE State Bank of India holds 50% of the shares. The bank established in 1993 A.D, with a paid up capital of Rs.119.95 million. It currently operates with 24 branches.

Nepal Bangladesh Bank Ltd. was established in 1993 A.D. with 30% shares of general public, 1.25% of Nepal Srilanka Merchant Bank Ltd, 18.25% of Nepalese promoter and 50% shares of International Finance Investment and Commercial Bank of Bangladesh. It operates with 15 branches.

Everest Bank Ltd. started its operation in 1994 A.D. It entered into joint venture with Punjab National Bank (PNB) of India in January 1997 A.D. only. The PNB holds 20%

shares, the general public 30% and the Nepalese investor holds 50% shares. Currently it has 28 branches.

Bank of Kathmandu was started as a joint venture between the Saim Commercial Bank of Thailand in 1994 A.D. At the time of establishment, the general public had 25%, Nepalese investor 45% and the Siam Bank had 30% share holdings. It has 26 branches at the moment.

Nepal Credit and Commerce Bank Ltd. (earlier known as Nepal Bank of Ceyon Ltd.) was established in 1996 A.D. with 30% shares of general public, 1% of Nepal Bangladesh Bank, 8.2% of Nepal Insurance Company and 60.8% of Nepalese investors. Presently it has 17 branches.

Lumbini Bank Ltd., established in 1998 A.D. in narayangadh has 30% shares of general public, 14% of Employees Provident Fund, 6% of Citizen Investment Trust, 7% of Lalitpur Finance, 2% of NEFINSCO and the rest 41% of various investors. It has only 7 branches.

Nepal Industrial and Commercial Bank Ltd. was established with 30% shares of general public, 5% of RBB and 65% of Nepalese investors in 1998 A.D. It has 15 branches.

Machapuchre Bank Ltd. started its operation as a regional bank from Pokhara in 2000 A.D. It has 35% shares of general public and 65% of Nepalese investors along with 19 branches.

Kumari Bank Ltd. started its operation in 2001 A.D. with the issued capital of Rs. 500 million. It has 30% shares of general public and 70% shares of Nepalese investors. Right now, it has only 26 branches.

Laxmi Bank Ltd. was established with 35% shares of general public, 10% of Citizen Investment Trust and 55% of Nepalese investors in 2002 A.D. as a regional bank with

its head office in Birjung. Its has 17 branches.

Siddhartha Bank Ltd. is the last commercial bank to start its operation from December 2002 A.D. with 40% share holdings by the general public and 60% by Nepalese investors. It started with the issued capital of Rs. 500 million. It has 11 branches.

Prime commercial bank has been established by prominent business personnel and professional on 28 September 2007 .It has allocated 30% of its authorized capital for the general public. It started with the issued capital of Rs.100 crores. It has 7 branches.

Bank of Asia Nepal Ltd. is the 22nd commercial bank of Nepal .It is incorporated under the companies Act 2063 as ‘A’ class financial institution .It started its full fledged commercial operation from 12th October 2007 with 30% share holdings by the general public and 70% by the promoters .It started with the issued capital of Rs.1 billion .It has 12 branches.

In this way, till the end of 2004 A.D., there are 2 commercial banks under government investment, 6 under foreign investment and the rest 9 banks under private sector investment that are operating in various parts of the country. Similarly, from the year 1994 to 2004 A.D. the number of branches has decreased from 441 to 366 with only 10 commercial banks at the end of 1994 A.D. contact of management effort between two persons, companies or organizations involving risk and benefit sharing”.

2.1.2 Concept of Commercial Bank

Commercial bank is cooperative which accepts demand deposits subject to check and make short-term loans to business enterprises, regardless of the scope of its other services (American Institute of Banking, 1972:345).

A bank is business organization that receives and hold deposit of funds form others, make loans or extends credit and transfer fund by written order if depositors (America: Grolier Incorporated, 1996).

Commercial banks are those banks that poll together the savings of the community and arrange for their productive use. They supply the financial needs of modern business by various means. they accept deposits from the public on the condition that they are repayable on demand of short notice. Commercial banks are restricted to invest their funds in corporate securities. Their business is confined to financing the short term needs of trade and industry such as working capital financing. They can not financing in fixed assets. They grant loans in the form of cash credits and overdrafts. A part from financing they also render services like collection of bills and cheques, safe keeping of valuables, financing advising etc to their customers (Vaidya, 2001:38).

A commercial bank can be defined as an institution which deals in money in words of the Crowther "Banks collect money from those who have it to spare or who are saving it out their income and lend this money out against goods security to those who requires it" (Crowther, 1985:58).

In the Nepalese context, Commercial Bank Act, 1974 A.D. defines "A Commercial bank as one which exchanges money, deposits money, accepts deposits, grants loans and performs commercial banking functions (Commercial Bank's Act, 1974 A.D.).

Commercial banks are those banks which perform all kinds of banking functions are accepting deposits, advancing loans, credit creation and agency functions. They provide short term loan, medium term loans and long term loans to different business houses and trading companies. NRB act 2031 has defined the meaning of commercial banks as the banks, which performs the commercial functions.

Commercial banks are the heart of our financial systems. They hold the deposits of million of persons, government and business units. They make fund available through their lending and investing activities to borrow individuals, business units and government. Banks are among the most important financial institutions in the economy and essential business in thousands of towns and cities.

Hence we can conclude from the above that the commercial banks are established under the rules and legislation of the central bank of the country. It has to move as per

the directives given by the central banks. Though banks are established for the mobilization of the saved fund central bank makes certain rules and regulations so that the public or the customer of the bank may not undergo on loss of their hard earned money by the disinvestments procedure of the bank.

2.1.3 Functions of Commercial Banks

Banks are those institutions which collect deposits and lend credits for needy groups. It collects unused money from the public by providing attractive sound interest and can earn profit by lending it on mainly in business organization, industrial and agriculture sectors and investing in government bonds. So, the main function of commercial banks is to mobilize idle resources in productive areas by collecting it from scattered sources and generating profit. There are many functions performed by commercial banks which may be summarized as follows

A. Accepting Deposit

The main objective of the commercial banks is to collect the deposit. Commercial banks accept the deposit from the public who has surplus funds under three main headings namely as follows:

i) Current Deposit

Current deposits are also known as demand deposits. The demand deposit in which an amount is paid immediately at the time of any account holder's is called demand deposit. Through the bank can't gain profit by investing in new sector after taking from the customer, this facility is given to the customer. Therefore, the bank does not give interest on this account.

ii) Saving Deposit

In saving deposits, there are restrictions on the maximum amount that can be deposited and also withdrawals from the account. This deposit is suitable and appropriate for the people of middle class who have low income and small saving. The bank usually pays small interest to the depositors against their deposit.

iii) Fixed Deposit

Fixed deposit is the one, which a customer is required to keep a fixed amount with the bank of specific periods, generally by those who do not need money for the stipulated period. They are not allowed to withdraw the amount before expiry of the period. The rate of interest is higher than other deposits. The bank pays a higher interest as such on deposits.

B. Advancing Loan:

Commercial bank collects fund by taking all kinds of deposits and then it mobilizes by providing loans and advances. Direct loans and advances are given to all types of persons against security of the borrowers or against the security of moveable and immoveable properties. There is various methods of advancing loans e.g.

- 1 Overdrafts
- 2 Cash credit
- 3 Directs loans
- 4 Discounting bill of exchange etc.

C. Credit Creation

Commercial bank creates credit on the basis of deposits. They hold a certain amount of cash reserve to meet obligations. The rest of the deposits amount is invested in loan finance that yields higher rates of interest as compared to those payable on deposits. When the bank advances loans, it opens an account to withdraw the money by cheque according to borrowers needs.

D. Agency Services

A commercial bank provides a range of investment services. It undertakes to buy and sell securities on behalf of its clients. The bank undertakes the payment of subscription, premium, rents etc. It collects cheques, bills, promissory notes, dividends, interest etc. on behalf of the customer. The bank charges a small amount of commission for those services. It also acts as correspondents or representatives of its customers, other banks and financial institutions.

E. Facilitating Foreign Trade

The commercial bank efficiently arrange for the amount of foreign exchange required by business organization. Moreover, foreign trade transactions have

facilitated by the issue of commercial letter of credit.

F. Other Functions

Other Functions of the commercial banks are as follows:

- 1 Payment mechanism
- 2 Financial advising
- 3 Security brokerage services
- 4 Safe keeping of values
- 5 Extension of credit
- 6 Pooling and Saving
- 7 Investment banking and Merchant Banking

2.1.4 Investments

Investment is defined as employing the fund at present in anticipating of generating more funds in the future. In other word investment is the sacrifices of current fund (consumption) for having the better consumption in the future. Further more when the value of initial investment increases after certain period by means of investment, it is called generation of positive return (i.e. profit). However if the situation turns out to be unfavorable, the value of initial investment may decline on passage of time which is known as negative return (i.e. loss). There is high importance of investment for the better economic situation. An investment can bring the multiplier impact in an economy. Commercial bank fulfill the credit needs of various sectors of the economy including agriculture, commercial, Social service sectors whether it is small or medium or long term projects as well as the investment on the securities, whether it can be government or non – government. The investment of the commercial bank in the securities include the investment on the treasury bills, development bonds, national savings bonds, shares on government owned companies and non government companies and investment on debentures.

"Investment is any vehicle into which funds can be placed with the expectation that will preserve or increase in the value and generate positive returns" (Gitman; 1990:47).

"Investment can be categorized as real investment and financial investment. Real investment generally involves some kinds of tangible asset such as land, plant and machinery etc. Financial investment involves contracts written on piece of paper such as common stock and bonds" (Sharpe and Bailey; 1998:1).

"An investment may be defined as the current commitment of funds for a period of time of derives a future flow of funds that will compensate the investing unit for the time the funds are committed, for the expected rate of inflation and also for the uncertainty involved in the future flow of the funds" (Reilly; 1991:94).

"Investment, in its broadest sense, means the sacrifice of certain present value for (possible uncertain) future value" (Sharpe; 1998:1).

"Investment is the investment of the funds with the aim of achieving additional income or growth in value. The essential quality of an investment is that it involves" waiting" for a reward. It involves the commitment of resources which have been saved or put away from current consumption in the hope that some benefit will accrue in future" (Singh; 1985:1).

"An investment is a commitment of money that is expected to generate additional money. Every investment entails some degree of risk; it requires a present certain sacrifice for a future uncertain benefit" (Clark; 1981:1).

Investment is the allocation of monetary resources to assets that are expected to yield some gain or positive return over a given period of time. These assets may range from safe investments to risky investments. Investment in this form is called financial investment. From the point of view of people who invest their funds, they are the suppliers of "Capital" and in their view investment is a commitment of a person's funds to derive future income in the form of interest, dividends, rent, premiums, pension benefit or the appreciation of the value of their principal capital. To the economist, Investment means the net addition to the economy's capital stock which consists of goods and services that are used in the production of other goods and

services. In this context, the term investment, therefore, implies the formation of new and productive capital in the form of new construction, new producers' durable equipment such as plant and equipment. Inventories and human capital are included in the economist definition of investment (Singh; 1985:2).

"Investments constitute a fourth line of defense, after cash, money at call and short notice and Bills discounted. They yield a higher return than that obtained from liquid assets. But the return is not as high as the return from loan and advances. Bank invests a large proportion of their funds in government securities and other gilt- edged securities. When the demand from the loan and advances falls it buys gilt- edged securities and when the demand from the loan and advances increases the bank probably sells the securities. these securities can be converted into cash easily and without much loss of value. Some securities mature after a long time say 5 to 10 years. If they are sold before maturity, the bank incurs a capital loss. The bank also stands to lose, if the bank interest rate rises. If the banker can wait till the due date the investments yield a fairly high rate of return.

A banker does not prefer to invest his funds in company shares and debentures. The shares and debentures may be very easily sold on the stock exchange. But the bank will incur a loss if the market value of the securities falls. Unlike the government securities there is no maturity date for shares. The income from shares depends upon the prosperity of the company issuing the shares. If the company becomes insolvent the banker loses heavily. If a bank has certain amount of funds which can be left undisturbed for a number of years, investment in long term government securities becomes profitable propositions" (Radhswamy; 1979:549).

Bank Assets

- 1 Cash
- 2 Money at call and short notice
- 3 Bills discounted and purchased
- 4 Investments
- 5 Loans, Advances, Cash Credit and Overdrafts

"Expenditures and benefits of an investment should be measured in cash. In the investment analysis; it is cash flow which is important, not the accounting profit. It may also be pointed out that investment decisions affect the firm's value. The firm's value will increase if investments are profitable and add to the shareholders' wealth." Investment decision requires special attention because of the following reasons.

- 1 They influence the firm's growth rate in the long term.
- 2 They affect the risk of the firm.
- 3 They involve the commitment of large amount of funds.
- 4 They are irreversible or reversible at substantial loss.
- 5 They are among the most difficult decision to make.

It is very important because it influences the firm's growth in the long run, affects the risk of the firm, requires the large amount of funds, difficult to make.

Growth

The effects of investment decision extend into the future and have to be endured for a longer period than the consequences of the current operating expenditure. A firm's decision to invest in long- term asset has a decisive influence on the rate and directions of its growth. A wrong decision can prove disastrous for the continued survival of the firm; unwanted or unprofitable expansion of asset will result in heavy operating cost to the firm. On the other hand, inadequate investment in asset would make it difficult for the firm to complete successfully and maintain its market share.

Risk

A long -term commitment of the funds may also change the risk complexity of the firm. If the adoption of an investment increases the average gain but causes frequent fluctuations in its earnings, the firm will become more risky. Thus investment decision shapes the basic character of the firm.

Funding

Investment decisions generally involve large amount of funds which make it imperative for the firm to plan its investment programs very carefully and make and

advance arrangement for procuring finances internally or externally.

Irreversibility

Most investment decisions are irreversible. It is difficult to find a market for such capital items once they have been acquired. The firm will incur heavy losses if such assets are scrapped.

Complexity

Investment decisions are among the firm's most difficult decisions. They are an assessment of future events which are difficult to predict. It is really a complex problem to correctly estimate the future cash flow of an investment. The uncertainty in cash flow is caused by economic, political, social and technical forces. (Panedy; 1999:407)

2.1.5 Feature of Investments Programme

The features of an investment programme consist of safety of principal, liquidity, income stability, adequate income, purchasing power stability and appreciation, freedom from management of investments, legality and transferability (Singh; 1985:10).

Liquidity

Every investor requires a minimum liquidity in his investment to meet emergencies. Liquidity will be ensured if the investor buys a proportion of readily saleable securities out of this total portfolio. He may therefore keep a small proportion of cash, fixed deposit and unit, which can be immediately made liquid. Investment like stocks and property or real estate cannot immediate liquidity.

Safety of Principal

The investor to be certain of safety of principal should carefully review the economic and industry trends before choosing the types of investments. Errors are unavoidable and therefore to ensure safety of principal the investor should consider the diversification of assets. Adequate diversification mixing investment commitments by industry, geographically, by management, by financial type, and by maturities. A proper combination of these factors would reduce losses. Diversification helps to great

extent in proper investment but it must be reasonably accomplished and should not be carried out to extremes.

Income Stability

Regularity of income at a consistent rate is necessary in any investment pattern. Not only stability, it is also important to see that the income is adequate after taxes. It is possible to find out some good securities which pay practically all their earning in dividends.

Appreciation and Purchasing Power Stability

Investor should balance their portfolios to fight against any purchasing power instability. Investor should judge price level inflation, explore the possibility of gain or loss in the investments available to them, limitations of personal and family considerations. The investor should also try to forecast which securities will possibly appreciate. A purchase of property at the right time will lead to appreciation in time. Growth stock will also appreciate over time. These however should be done thoughtfully and not in a manner of speculation or gamble.

Legality and Freedom from Care

All investment should be approved by law. Law relating to minors, estates, trusts, share and insurance should be studied. Illegal securities will bring out many problems for the investors. One way of being free care is to invest in securities like Life Insurance Corporation or saving certificates. The management of securities is then left of the care of the trust that diversifies the investment according to safety, stability and liquidity with the consideration of their investment policy. The identity of legal securities and investment in such securities will also help the investor in avoiding many problems.

Tangibility

Intangible securities have many times lost their value due to price level inflation, confiscatory laws or social collapse. Some investors prefer to keep a part of their wealth invested in tangible properties like building, machinery and land. It may however be considered that tangible property does not yield an income apart from the direct satisfaction of possession of property.

2.1.6 The Investments Process – Stages in Investments

The investment process is generally described in four stages. These stages are investment policy, investment analysis, valuation of securities and portfolio construction (Singh; 1985:11).

Investment Policy

The first step determines and involves personal financial affairs and objectives before making investment. It may also be called the preparation of investment policy. The investor has to see that he should be able to create an emergency fund, an element of liquidity and quick convertibility of securities into cash. This stage may, therefore, be called the proper time for identifying investment assets and considering the various features of investment.

Investment Analysis

When an individual has arranged a logical order of type's investment that he requires, on his portfolio, the next step is to analyze the securities available for investment. He must make a comparative analysis of type of industry, kind of security, fixed v/s variable securities. The primary concern at this stage would be to form beliefs regarding future behavior of prices and stocks, the expected return and associated risk.

Valuation of Securities

The third step is perhaps the most important consideration of valuation of investments. Investment value, in general, is taken to be the present worth to the owners of future benefits from investments. An appropriate set of weights have to be applied with the use of forecasted benefits to estimate the value of the investment assets. Comparison of the value with the current market price of the assets allows a determination of the relative attractiveness of the assets. Each asset must be valued on its individual merit. Finally the portfolio should be constructed.

Portfolio Construction

As discussed earlier under the features of different investment programmes, portfolio construction requires knowledge of the different aspects of securities. These are briefly recapitulated here, consisting of safety and growth of principal, liquidity of

assets after taking into account the stage involving investment timing, selection of investments, allocation of savings to different investments and feed back of portfolio as given in table "The process of Investing"

1. Investment Policy

- 1 Determination of invisible wealth
- 2 Determination of portfolio objective
- 3 Identification of potential investment assets
- 4 Consideration of attribute of investment assets
- 5 Allocation of wealth to assets categories

2. Investment Valuation

- 1 Valuation of stocks
- 2 Valuation of debentures and bonds
- 3 Valuation of other assets

3. Investment Analysis

<u>Investment stock analysis</u>	<u>Debenture and bond analysis</u>	<u>Other assets analysis</u>
Screening of industries	Analysis of yield structure	Qualitative analysis
Analysis of industries	Consideration of debenture	Qualitative analysis
Quantitative analysis	Quantitative analysis	Debenture of stocks

4. Portfolio Construction

- 1 Determination of diversification level
- 2 Consideration of investment timing
- 3 Selection of investment assets
- 4 Allocation of invisible wealth to investment assets
- 5 Evaluation of portfolio for feed back

"Investment is the sacrifice of certain present value for the uncertain future reward. It entails arriving at numerous decisions such as type, mix, amount, timing, grade etc. of investment and disinvestments. Further such decision-making has not only to be continuous but rational also. Broadly speaking an investment decision is a trade off

between risk and return." (Bhalla; 1983:3)

There are basically three concept of investment.

- 1 Economic Investment: that is an economist's definition of investment. It included net additions to the capital stock of society. By capital stock of society is meant those goods which are used in the production of other goods. This is a gross, societal or aggregate point of view. In society there are number of goods (such as building, plant and equipment etc) which are used to produce other goods. And that these means of production are considered part of the capital stock of society.
- 2 Investment in more general or extended sense, which is used by 'the man on the street'. The everyday usage of the term investment can mean a variety of things but to the man on the street it usually refers to a money commitment of some sort. For example a commitment of money to buy a new car is certainly an investment form an individual point of view. But these are so in very general and in very extended sense of the word since no rate of return is involved nor is a financial return or capital growth expected.
- 3 The sense in which we are going to be very much interested, namely, financial investment. it means an exchange of financial claims-stock and bonds (collectively termed securities), real estates, mortgage etc.

2.1.7 Risk of Investments

Business risk which is sometimes called operating risk, is the risk associates with the normal day to day operation of the firm. Financial risk is created by the fixed cost securities (i.e. debt preference share). Looking at the two categories on the sources and uses context, business risk represents the chance of loss and the variability of return created by the firm's uses of the funds. Financial risk is the chance of loss and the variability of the owners' return created by the firm's sources of funds (Bhalla; 1983:11).

Business risk is concerned with earning before interest and taxes and financial risk is concerned with the earning available to equity holders. Two component of business

risk signify the chance that the firm will fail because of the inability of the assets of the firm to generate a sufficient level of earning before interest and the variability of such earnings. The two component of financial risk reflect he chance that firm will fail because of the inability to meet interest and/or principal payments on debt and variability of earnings available to equity holders caused by fixed financing changes.

Purchasing Power Risk

Whenever investor desires to preserve their economic position over time, they utilize investment out lets whose value varies with the price level. They select investment whose market value changes with consumer prices which compensates them for cost of living increase. If they do not, they will find that their total wealth has been diminished. Inflation is an economic crippler that destroys the economic power of investors over goods and services.

Market Risk

This hazard arises from the fact that market prices and collateral values of securities and real property may vary substantially, even when their earning power does not change. The causes of these price uncertainties are varied. At times may markets are simply thin i.e. buyers and sellers appear only intermittently. More commonly, investment prices vary because investors vacillate in their preference for difference for different forms of investment or simply because they sometimes have money to invest and sometimes do not have it. But once the equity has developed a particular price pattern, it does not change this pattern quickly. The causes of the market prices are usually beyond the control of the corporations. An unexpected war or the end of one, an election year, political activities, death of a president all are the tremendous psychological factors in the market. The irrationality in the securities markets may cause losses unrelated to the basic risk. These losses are the result of changes in the general tenor of the market and are called market risk.

Interest Rate Risk

A major source of risk to the holders of high quality bonds in changes in interest rates commonly referred to as interest rates risk. These high quality bonds are not subjected

to either substantial business risk or financial risk. Consequently they are referred to as high quality bonds. But since they are high quality bonds their prices are determined mainly by the prevailing level of interest rate in the market. As a result, if interest rates fall, the prices of these bonds will rise and vice versa. Interest rate affects all the investors in high quality bonds regardless of whether the investors hold short term or long term bonds.

Social or Regulatory Risk

The social or regulatory risk arises when an otherwise profitable investment is impaired as a result of adverse legislation, harsh regulatory climate or in extreme instance nationalization by a socialist government. The profit of industrial companies may be reduced by price controls, and rent controls may largely destroy the value of rental property held for income or a price-level hedge.

2.1.8 Investment Policy of a Bank

The role of commercial banks in the economy is obviously a prime requisite in the formulation of banks policy. A key factor in the development of the country is the mobilization of the domestic resources and their investment for productive use to the various sectors. To make it more effective, commercial banks formulate sound investment policies, which help eventually, contribute to the economy of the country. The sound policies help commercial bank maximize the quality and quantity of the investment and thereby, achieving the own objective of profit maximization and social welfare. The banking sector has to play development role to boost the economy by adopting the growth oriented investment policy and building up the financial structure for future economic development. Formulation of sound investment policies and coordinated and planned efforts forward the forces of economic growth.

Investment policy is an important ingredient of overall national economic development because efficient allocation of funds to achieve the material and economic well being of the society as a whole. It is one fact of the overall spectrum of policies that guide banks investment operations. A healthy development of any bank

depends upon its investment policy. A sound and viable investment policy can get effective one for the economy to attain the economic objectives directed towards the acceleration of the pace of development. A good investment policy attracts both borrowers and lenders, which helps to increase the volume and quality of the deposits, loan and investments.

The loan provided by commercial bank is guided by several principles such as length of time, their purpose, profitability and safety etc. These fundamental principles of commercial bank's investment are fully considered while making investment policy. Investment policy should ensure minimum risk and maximum profit from lending.

"Lending is the essence of commercial banking, and consequently the formulation and implementation of sound policies are among the most important responsibility of bank directors and management. Well conceived lending policies and careful lending practices are essential if a bank is to perform its credit creating function effectively and minimize the risk inherent in any extension of credit." (Crosse; 1963:191)

"Commercial Bank can not appropriately serve all the credit needs of their communities. Some of them because of their capital or long term nature are not eligible for bank credit. The bank however should at least be aware of such needs. Even if they can not fill them directly, bank can do a great deal to facilitate the flow of longer term or capital funds into their communities or to meet any excess need for short term funds through their relationship with the market; other institutional investors and their correspondent bank in the money center. A bank first step, therefore, in formulating lending policies is to assess the needs of the credit market or community it serves" (Crosse; 1963:192).

"The investment policy of the bank depends on the nature of its funds. If it can acquire funds of a or less permanent nature, it can acquire more profitable assets. If the funds are subject to wide fluctuations, it has to keep a large part of the funds in liquid form. It is said that the soundness of a bank is reflected in the distribution of its funds on

different types of assets. A good banker is one who follows a wise investment policy which brings maximum profit to shareholders and provides maximum security to the depositors. No uniform rules can be laid down to determine the portfolio of a bank. The local conditions on which the bank operates will necessarily have a bearing on its investment policy. The nature and availability of funds as also assets differ widely from country to country and also from region to region within the same country. Within our country, the banks in rural areas face certain problems which are materially different from those of the banks in the urban areas. In rural areas the demand for loans is usually less liquid and less diversified as the main occupation of the people is agriculture. These differences naturally have their impact on the investment policy of the bank.

Apart from the local conditions, it may be stated that a bank is fundamentally governed by three important principles in formulating its investment policy. The guiding principles of the investment policy of a commercial bank are liquidity, profitability and security. These three attributes are inter-related. The bank cannot afford to sacrifice one in favor of the other" (Radhaswamy; 1979:542).

Liquidity

The first and the most important principle that a bank should bear in its mind while considering the application of the funds is liquidity. Liquidity is the term used to refer to the capacity of the bank to pay cash in exchange of the deposits. A large part of the bank deposits is withdrawable on demand and hence the bank must maintain a sufficient degree of liquidity in its assets. Such assets may be cash or other readily realizable assets. The foundation of the entire banking system rests on the confidence that the bank is able to create in the minds of the people. If the confidence is lost and all the depositors decide to withdraw all their deposits from the bank on the same day, even the best institution cannot survive. The investors feel confident about a bank, only if it is able to produce cash on demand. The bank must, therefore, maintain sufficient cash reserves in its vaults to honor every cheque that is presented across the counter. The concept of liquidity must be distinguished from solvency. A bank is said

to be solvent if the value of its assets exceeds the value of its liabilities. It is said to be liquidity only if it is in a position to readily convert its assets into cash, with a view to meet the demand of the customers. A bank may be solvent but may not be liquid. The bank may be having assets far exceeding its liabilities in value. If the assets are in such forms that they cannot be readily sold, the bank is not liquid.

Profitability

The most important objective of a commercial bank is to make as much profit as possible. It is a business institution. Hence it aims at securing maximum profits. In this, it differs from a central bank which seeks to serve broad national interests. In the matter of acquisition of assets, a commercial bank is very much influenced by the consideration of profit. The bank must earn sufficient income from its assets so as to meet all its expenses and pay a fair percentage of dividends to the shareholders. The income will be greater if the yield from the assets is greater. Therefore the bank will try to arrange its assets in such a way that it is able to derive maximum income in order to make profits, the bank must invest the funds left with it by the depositors, in different forms of earning asset. Generally the securities which yield a higher rate of return will be long-term securities and they cannot be readily converted into cash. We have already seen that the bank must keep sufficient cash reserves to meet the demand of depositors. Cash is a non-profit-earning asset and hence a bank cannot afford to keep a large part of its funds in the form of cash. The bank must enjoy the fullest confidence of its depositors, if it were to invest a large portion of the deposits in assets that earn a profit. But this confidence is dependent upon the ability of the bank to meet readily the demands for cash made upon it by its customers. Thus liquidity and profitability are two conflicting considerations.

Cash is a barren asset and it brings on income to the bank. The bank cannot invest all the funds in loans and advances because they bring higher returns since in that case it will not be able to meet the demands of the customers to pay cash. The bank always tries to reconcile these two considerations; liquidity and profitability and distributes the funds at its disposal. In other words a successful banker is one who keeps adequate

cash reserves to meet the day-to-day requirements of the depositors and invest the balance in profit earning assets. Usually a bank keeps a certain portion of its funds in cash which is a liquid asset. A certain other portion of the funds is kept in assets which are imperfectly liquid. They can be converted into cash easily in times of emergency and in the meanwhile they bring some income to the bank. The entire balance of the funds is used for granting loans and advances and purchasing investments which promise good earnings. The imperfectly liquid assets should have two qualities. They must be convertible into cash quickly if an emergency arises. They must be readily convertible without much loss of value. Then only the bank can fully meet the need of the depositors and it can be said to be liquid. So the concept of liquidity includes two attributes, convertibility into cash without much loss of time and convertibility into cash without loss of value.

In the course of time another attribute has been added to the concept of liquidity. It is the attribute of shift ability. It implies that the type of assets acquired by a bank should be easily shift able to other banks or to the central bank of the country. This attribute has made the concept of the liquidity more elastic. In times of emergency and crisis which a particular bank faces or when there is a general run on the banks, this attribute of liquidity assumes great importance. The banks look to the central bank, the lender of last resort, for assistance. The central bank is willing to pay cash in exchange for the assets of commercial banks provided the assets satisfy the eligibility rules laid down by the central bank. This facility has in recent times enhanced the liquidity position and the prestige of the entire banking system. There is no banking asset which is liquid in the sense that the aggregate amount of the asset can be greatly contracted without deleterious effect on the volume of output. Only the existence of a central monetary agency willing and able to increase its holdings of a given asset by large amounts will that asset be liquid for the banking system.

Security

The third principle is safety and security. The bank deals in other people's money. It can survive only so long as it is able to enjoy the confidence of the people. In its

anxiety to make profits to satisfy the shareholders, it cannot afford to sacrifice the principle of safety and security of its investments. It is in the nature of the trustee of the money belonging to the public and it must exercise the greatest care and vigilance in the matter of investing the funds received from the public in the form of deposits. It does not choose risky investments though they may yield a higher return. It does not generally prefer irredeemable securities like shares. It invests mostly in government securities.

Finally, it may be said that a bank must strike a balance between liquidity, profitability and safety. 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 profits for its shareholders. The formulation of a good investment policy is an art. The various types of assets must be balanced in such a way as to maximize income without incurring the danger of insolvency.

2.1.9. Principles of a Good Investments Policy

In choosing specific investment, investors' will need define ideas regarding a number of features that their portfolios should possess. These features should be consistent with the investors' general objectives and, in addition, should afford them all the incidental conveniences and advantages which are possible in their circumstances. The following are the suggested features as the ingredients from which many successful investors compound their selection policies (Bhalla; 1983:9).

Principle of Safety

The safety sought in investment is not absolute or completes the word means, rather protection against loss under reasonable likely. It calls for careful review of economic and industrial trends before choosing any type of investment or the time to invest. Thus, this principle recognizes that errors are unavoidable and requires extensive diversification.

Adequate Liquidity and Collateral Value

An investment is a liquid asset if it can be converted into cash without delay at full market value in any quantity.

For an investment to be liquid it must be either reversible or marketable. The difference between reversible and marketability is that reversibility is the process whereby the transaction is reversed or terminated while marketability involves the sale of the investment in the market for cash. To meet emergencies, every investor must have a sound portfolio to be sure for the additional funds, which may be needed for the business opportunities. Whether money is raising is to be done by sale or by borrowing it will be easier if the portfolio contains a planned proportion of higher-grade and readily saleable investment.

Stability of Income

Stability of income must be looked at different ways just as was security of principle. An investor must consider stability of monetary income and stability of the purchasing power of income. However, emphasis on income stability may not always be consistent with other investment principles. If the income stability is stressed, capital growth and diversification will be limited.

Capital Growth

Capital appreciation has today become an important principle. Recognizing the connection between corporation and industry growth and very large capital appreciation, investors and their advisors constantly are seeking "growth stock". It is exceedingly difficult to make successful choice. The ideal "growth stock" is the right issue in the right industry, brought at the right time.

Tax Status

To plan an investment program without regarding to one's tax status may be costly to the investor. There are really tow problems involved here that, one concerned with the burden of income taxes upon that income. When investors' incomes are small, they are anxious to have maximum cash returns on their hand, investors who are not presses

for cash income often find that income taxes deplete certain types of investment incomes less than others, thus affecting their choices.

Purchasing Power Stability

Since an investment nearly always involves the commitment of current funds with the objective of the investor should consider receiving greater amounts of future funds, the purchasing power of the future funds. For maintaining purchasing power stability, investors should carefully study (I) the degree of price level inflation they accept, (II) the possibility of gain and loss in the investment available to them (III) the limitations imposed by personal and family considerations.

Conceivability

To be safe from social disorders, government confiscation or unacceptable levels of taxation, property must be conceivable and level no record of income received from its.

2.2 Review of Previous Study

2.2 .1 Review of Articles

In this section, effort has been made to examine and review of some related articles in different economic journals, magazines, newspapers and other related books and publications.

K.C. Dr. (2005), has published an article about the "*Strategies for Reducing Non Performing Loan in Nepal*". According to him, rising amount of non-performing loan is generally considered a sign of inefficiency in the financial system. It shows that the financial system has failed to divert funds to productive uses. While it may not be possible to completely eliminate non performing loans from a financial system they should be controlled and put within an acceptable range. Of late, many countries have faced the problem of non-performing loans and some of them have taken drastic steps to control them.

The above journals focus in the various aspects of the bank's to reduce non-performing loan and such strategy may include the following.

1. Debt recovery Tribunals
2. Asset management company
3. Bankruptcy Act
4. Black listing and classification of defaulter
5. Enforcement of rules and regulations

In conclusion, he said that non performing loan is a big problem not only to the financial institution but also to the borrowers. While on one hand borrowers must understand that loans obtained from financial institutions are saving of some one else and need to be repaid, financial institutions should also realize on the other hand that performance of borrower and not all defaulters are willful. It is necessary to build up a climate to trust and a climate for sound financial discipline where wrong doers are severally penalized needs to be established. Maintaining financial discipline should go beyond loan defaulters and penalize any one who commits financial crime.

Pant (2005), Managing Director of Bank of Kathmandu, in his exclusive interview to the "Business Vision 2005" expressed that in the case of Non Performing Assets (NPA), bank must first and foremost, focus on corporate governance and credit risk management.

They need to maintain the transparency and analyze project cash flows and conduct feasibility studies of project before extending credit. In addition, corporate ethics and strong corporate culture with high degree of awareness of credit risk should be present. As a prerequisite, establishing adequate policies and procedures is advisable.

Government authorities including Nepal Rastra Bank can also play a major role in addressing the problem of NPAs. There is a need for a seamless working relationship between all the government authorities such that coordinated efforts to reduce NPAs can be carried out. Finally the business sector needs to be transparent as well. Good financial discipline amongst the borrowers, international accounting, auditing and disclosure standard and professionalism are some of the other requirements to reduce

NPAs in the future.

Bhattraï, (2003), has published an article about the "*Non performing Assets (NPA) Management*". According to him, a loan is very easy term for borrower when he has already taken for a lender not availed. It is equally difficult for a borrower to avail and for lender to recover. From a banker's view, it is just like a stone to roll down from the top of the hill while sanctioning, but too difficult to top back the same stone to the top of the hill while recovering. A loan not recovered within given time frame either in the form of interest revising or principal repayment is called non-performing loan (NPL). There are other parameters as well to quantify an NPL. Security not to the extent of loan amount with specified safety margin, value of security not realizable, possession not as per the requirement of bank, conflict of charges are the other reasons which causes difficulties while recovering the loan.

According to him, an important discipline in banking to prevent whole NPL or avoid situations for a loan to turn into NPL. The loan for a bank is most important generates revenue for operational expenses as well as to provide return to the shareholders.

When a loan advanced from good money turns into a bad loan the chance of shareholders return as well as survival of a bank stands a stake. Ailing bank can't portray its better image in the public. And no bank can operate its business without the deposit from the public. When public start loosing their confidence on the bank and don't keep their deposit in the bank, that bank will start counting its finger for collapse.

Ghimire, (1999), has published an article "Banijya Bank haru Prathmikata Chhetrama lagani garna phanda harjana tirna tayar" in which he has mentioned that most of the commercial banks of Nepal are ready to pay the penalty in spite of investing on rural, priority sector, poverty sticking and deprived areas. In the directives of Nepal Rastra Bank, it is clearly mentioned and directed that all commercial banks (under NRB) should invest 12% of its total investments to the

priority sectors. Out of this 12% they should invest to the lower class of countrymen. However, these commercial banks are unable to meet the requirements of NRB.

In the light of above, foreign joint venture banks use to justify that they don't have any network among these priority areas. So, if investment is made to these areas, operation cost will be very high, that exceeds the penalty if investment won't be made. That is why they are interested in paying penalty rather than investing in priority sectors.

Shrestha, Dr. (1998), in her article, "Lending operation of commercial banks of Nepal and its impact on GDP", has presented with the objectives to make an analysis of contribution of commercial banks lending to the gross domestic product (GDP) of Nepal.

Thus, in conclusion, she has accepted the hypothesis i.e. there has been positive impact on GDP. She has accepted that there has been positive impact by the lending of commercial banks in various sectors of economy, except service sector investment.

2.3 Review of Thesis

Several researches have been performed on investment policy of commercial banks. Previous research studies on the various aspects of commercial banks such as investment policy, lending policy, capital structure are reviewed. Some of them are supposed to be relevant for this study so findings of such researches are presented below.

Sherpa (2009), has conducted a thesis on "Investment policy of Joint Venture Bank (NABIL and SCBNL). Investment decision is one of the major decision functions of financial management. The main purpose of this study is to assess the investment policy and strategies followed by the NABIL and SCBNL. The specific objectives of this study are given below:

- To evaluate the liquidity, asset management, profitability, risk position, liquidity and growth ratios of the banks under study.

- To assess the relationship between total deposits and investment ,loan and advances ,interest earned and net profit ,net profit to outside assets and total working fund ,loan and advances to interest paid and compare them.
- To analyze the trend of deposits ,investment ,net profit and loan and advances .For next five years of SCB NL and NABIL.
- To make appropriate recommendation/ suggestions on the basis of major findings.

The research findings were:-

1. The liquidity position of SCBNL is comparatively better than NABIL. It has highest cash and bank balance to current assets. SCBNL is in a better position to meet its daily cash requirement. NABIL has a highest current ratio which justifies that it is also capable enough to meet its current obligations. SCBNL's investment in Government securities is better than NABIL.
2. From the analysis of asset management ratio it can be concluded that NABIL has been more successful in mobilization of its total deposits and working fund as loan and advances. On the other hand .SCBNL appears to be stronger in mobilization of total deposits and working funds as investment in risk free government sensitive. NABIL has far better far better in purchasing shares and debentures of other companies but both have invested marginal amount under this heading.
3. In analysis of profitability , SCBNL has more successful in maintaining its higher return on loan and advances and total working fund and outside assets . NABIL has been more successful in mobilization of its funds in internet bearing assets to earn higher internet income then SCBNL.
4. From the risk ratio analysis, it can be concluded that SCBNL has lower liquidity risk and credit risk than NABIL. NABIL has great exposure to risk its financial operations than SCBNL.
5. From the growth ration analysis ,it can be concluded that SCBNL has been more successful in increasing its deposits , loan and advances and investment during the study period where as NABIL has been more efficient in terms of increasing its net profit.
6. From the trend analysis of financial data of both banks it is found that both banks

are in increasing trend.

Gupta (2008) , has conducted her study on “a comparative study on investment practices of commercial banks(with special reference to NABIL BANK LTD , STANDARD CHARTERED BANK NEPAL LTD and HIMALAYAN BANK LTD) to examine and evaluate the investment practices of NABIL BANK LTD ,and compare the same with HIMALAYAN BANK LTD and SCBNL to achieve this prime objective the following objectives are considered in the study;

- a) To analyze trend of investment made by NABIL BANK LTD , SCBNL and HIMALAYAN BANK LTD.
- b) To analysis the different investment sector of NABIL BANK LTD , SCBNL and HIMALAYAN BANK LTD.
- c) To evaluate and criteria efficient, inefficient, the liquidity assets management efficiency and profitability position of the selected banks.
- d) To recommend the policies to be adopted by the selected banks on the basic of the study.

1. The research findings were the current ratio of NABIL is comparatively better then SCBNL and HBL. NABIL has maintained highest current assets ratio but it has lower mean ratio of cash and bank balance to total deposit and cash and bank balance to current assets ratio .NABIL has minimum deposit collection . It has made average investment on loan and advances and it has maintained low investment policy on government securities.
2. From the analysis of assets management ratio it can be concluded that NABIL has successfully maintained and managed its asset toward different income generating activities . The ratio of loan and advances to total deposit is higher but the mean ratio is lower than SCBNL and HBL . But investment on government securities to total working fund is in moderate position in compare to other two banks . The mean ratio of total working fund of NABIL is more consistent and homogeneous than SCBNL and HBL.
3. In profitability ratio ,the mean returns on total working fund and total working

fund and total interest earned to total working fund of NABIL is higher than SCBNL and HBL. The mean ratio of total interest earned to total outside assets return on loan and advances and total interest paid to total working fund of NABIL is in moderate position in comparison to SCBNL and HBL. So, the profit earning capacity of NABIL is high then other two banks.

4. There is a high degree of significant relationship between deposit and loan and advances, deposit and total investment and outside assets and net profit of NABIL in compare to SCBNL and HBL.
5. Total deposit, total investment and net profit of three sample banks are in increasing trend. Other things remaining the total deposit of NABIL will be on average portion in compare to other two banks but total investment trend of NABIL is not better in comparison to SCBNL and HBL. The net profit of NABIL will be highest among three banks.
6. From the above analysis, it can be concluded that all three banks have significant difference between loan and advances, returns on loan and advances. there is no significance difference between investment on government securities to current assets of NABIL and HBL and ratios of total interest earned to total outside assets of NABIL and SCBNL. But there is significant difference between investment on government securities to current assets of NABIL and SCBNL and significant difference between total interest earned to total outside assets of NABIL and HBL.

K.C (2007), in his thesis, "A Study on Investment Policy of Paschimanchal Finance Company Limited" tries to identify the investment policy of PAFICOL in the industry, commerce and other services.

The specific objectives are as follows:

1. To examine the investment policy and its impact upon the optimum utilization of financial resources of the PAFICOL.
2. Financial Analysis of Portfolio investment of loan and advance and investment of the company.
3. An Analysis of contribution in the context of industrial and commercial

development up on its area.

4. To provide some relevant suggestion and recommendation for improvement of investment policy of PAFICOL.

The major findings of the study are:

1. PAFICOL has collected inactive capital and it has also provided financial assistance to the investors.
2. It has provided attractive interest rate for the deposit to collect the money and also enhance to mobilizing those kinds of resources.
3. Company has make financial resources through the collecting deposit and acquiring the share from new and existing shares.
4. It was increased the number of share through the existing shareholders.
5. During the study period , it was found that the each sectors of investment of loan and advance is going to positive changes.
6. It was found that the market value of PAFICOL is running normal standard but not increased its value with effectively

Shrestha (2006), has conducted a thesis on "Study on Investment policy of Joint Venture Commercial Bank (Reference with Himalayan Bank Ltd and Standard Chartered Bank Ltd) and NRB directive issued in regards to there-of. The specific objectives of the study were:

1. To evaluate the liquidity management ,asset management efficiency, profitability, risk portion and investment practices of SCBNL and HBL.
2. To analysis the trends of deposits utilization towards total investment to loan and advances and its projection for next five years.
3. Evaluate the growth ratios of loan and advances and total investment with respective growth rate of the total deposit and net profit.
4. To study the fund mobilization and investment policy with respect to fund based off Balance Sheet transaction and fund based on Balance Sheet transaction.
5. To provide suggestion and recommendations for the policies that have been adopted by the sample organization based on the financial analysis for its future development.

The major findings of the study were

1. The mean liquidity ratio of HBL is lower than SCBNL. It means the HBL has maintained lower liquidity and higher risk in compare to SCBNL. The ratio of HBL is highly variable than SCBNL which indicates the unstable liquidity policy.
2. The cash reserve ratio of SCBNL and HBL is likewise. However, the coefficient of variance between the two banks, HBL ratio is lower than that of SCBNL. It shows the ratio of HBL is more stable and SCBNL has maintained lower cash reserve ratio during the study period.
3. The mean ratio of cash and bank balance to C.A of HBL is higher than SCBNL where as the liquidity position of SCBNL from the point of view of investment on government securities is better than HBL. The mean ratio of SCBNL is higher than HBL which indicated that it wants to invest more in productive sector in compare to HBL.
4. The mean ratio of loan and advances plus investment to total deposit of SCBNL is higher than HBL. SCBNL has more successful in utilizing its fund in government securities than HBL. HBL has maintained higher mean loan and advance to total working fund ratio and also maintained higher mean investment on share and debenture to total working fund ratio than SCBNL.
5. Profitability ratio of both bank shows that both banks are running on profit. Mean return on loan and advance ratio, mean return on total assets and mean return on equity ratio shows that SCBNL has higher return than HBL. But the mean ratio of interest income to total income of HBL is higher than SCBNL. It shows that both bank's main income generating source is investment and loan and advances.
6. The mean credit risk ratio of HBL is higher than SCBNL which indicates the high credit risk of HBL. Regarding the cv ratio of above both banks has follow the unstable credit policy.
7. Growth ratio of deposit, loan and advances, and investment is higher than that of SCBNL. But the growth ratio of net profit of SCBNL is higher than HBL.
8. From the trend analysis of financial data of both banks it is found that both banks are in increasing trend.

Joshi, (2005), has conducted her study entitled *"Investment Policy of Commercial Bank in Nepal, A Comparative Study of Everest Bank with, NABIL Bank and Bank of Kathmandu"* with following objectives:

- 1 To discuss fund mobilization and investment policy of EBL, NABIL and Bank of Kathmandu.
- 2 To evaluate the liquidity, efficiency and profitability and risk position, the growth ratios loan and advances and total investment with other variables.
- 3 To analyze the trends of deposit utilization towards total investment and loan and advances.
- 4 To conduct hypothetical test to find whether there is significant difference between the various important ratio of EBL, NABIL and Bank of Kathmandu.

The research findings of the study were:

- 1 The liquidity position of the EBL is comparatively better than NABIL and BOK. It has the highest cash and bank balance to total deposits, cash and bank balance to current assets ratio. EBL has good deposit collection and has made enough investment on government securities but is has maintained moderate investment policy on loan and advances.
- 2 From the analyze of assets management ratio or activity ratio, it can be concluded that EBL is comparatively average successful in its on balance operation in compared to NABIL and BOK. The mean ratio of loan and advances to total deposit of EBL is higher than NABIL and lower than BOK but total investment to total deposit of EBL is higher than BOK but lower than NABIL. The mean ratio of investment on shares and debentures to total working fund of EBL is higher than NABIL and lower than BOK.
- 3 In analysis of profitability, total interest earned to total outside assets of EBL is lowest at all. But overall analysis of profitability ratios, EBL is average profitable in comparison to other compared banks. i.e. NABIL and BOK. From the viewpoint of risk ratio, EBL has higher capital risk ratio but average of credit risk ratio in compared to NABIL and BOK.
- 4 From the growth ratio analysis it can e concluded that EBL has maintained high growth ratios in total deposit, loan and advances and net profit but is has moderate

positioning investment. It means that the bank is successful in increasing its source of funds and its mobilization.

- 5 The trends analysis of deposit, loan and advances, total investment and net profit and projection for next five years of EBL, NABIL and BOK reveals that the position of EBL in regarding to utilization of funds to earn profit is not better in comparison to NABIL but better than that of BOK.

Malla, (2004), has conducted a thesis on "Financial Performance of Commercial Banks with Special Reference to Himalayan Bank and Nabil Bank" to examine the financial performance of HBL bank and Nabil bank. The specific objectives of the study were:

- 1 To examine that financial position of the banks under study.
- 2 To evaluate the liquidity, efficiency of assets management and profitability position of the bank under study.
- 3 To provide suggestion and recommendations on the basis of findings.

The main conclusions of the study were:

- 1 The overall liquidity strength of HBL can be considered the better than that of NABIL. However, the liquidity risk is most likely in NABIL, arising from its interest rate. Since the market is highly sensitive towards the interest rate and NABIL has generally been offering low interest rate as compared to other banks. If NABIL can not tie up its saving deposits saving holders from its advances and personalized banking system, the failure in liquidity in NABIL is most likely than HBL in coming future.
- 2 The analysis of strength of HBL in loan and advances is the best. The ratio of loan and advances to total assets, investment to loan and advances and loan and advances to shareholder's equity indicate the superior performance of HBL in its lending activities as compared to NABIL despite low volume of non interest bearing deposits in its capital mix. However the loan and advances and investment to total deposit ratio have upgraded the performance of NABIL..
- 3 The mean ratio of investment to loan and advances of NABIL is higher than the combined mean ratio and that of HBL is lower than combined mean. This indicates

that investment of NABIL is higher than that of HBL.

- 4 The ratio of loan and advances and investment to deposit ratio of NABIL is higher than that of HBL. This indicates that NABIL has been able to mobilize its funds more significantly than that of HBL.
- 5 Comparing the net profit and total expenses of these two banks, NABIL has the highest total net profit throughout the year and also the highest total expenses. NABIL has adopted risk avoiding concept and headed towards investment in government securities where as HBL is heading towards increasing advances with the concept of risk taking.
- 6 The mean ratio of interest income to total income ratio has concluded that the contribution of interest income in total income mix of HBL is the highest. This means that major portion of total income of HBL is highly dependent on loan and advances. The interest expenses to total deposit ratio indicates that the total cost of funds in HBL is the highest than that of NABIL. This shows that HBL has been unable to collect low cost deposit.

Shrestha, (2003), has conducted her study on *"Investment Analysis of Commercial Banks, A Comparative Study on HBL and Nepal SBI Bank"*, to assess the role and impact of investment on economic development of the country.

The major objectives of the study were:

- 1 To analyze percentage of investment made by Himalayan Bank and NSBI bank in total investment made by commercial banks.
- 2 To analyze investments trend, deposit trend and total income and their projection for next five years of Himalayan Bank and compare them with that of Nepal SBI Bank.
- 3 To identify investment sectors of Himalayan bank and SBI Bank.
- 4 To evaluate the liquidity, assets management efficiency, profitability and risk position of Himalayan Bank in comparison to that of Nepal SBI Bank.
- 5 To study relationship between investment and deposits of the bank.

The major findings of the study were:

- 1 Mean ratio of HBL investment to total commercial banks investment is higher than

that of Nepal SBI bank investment to total commercial banks. The portion of HBL investment is increasing every in the total investment of commercial banks.

- 2 Mean current ratio of HBL is higher than that of Nepal SBI bank. HBL is nearer to standardized current ratio but both banks hadn't been able to maintain standardized current ratio.
- 3 The mean ratio of investment to total deposit of HBL is higher than that of Nepal SBI bank. The mean ratio of investment plus of investment plus loan and advances to deposit ratio of HBL is lower than that of Nepal SBI bank. But its ratio is more variable than that of Nepal SBI bank. The mean ratio of investment to total assets shows that HBL has mobilized its assets more in income generating assets than that of Nepal SBI bank. The mean ratio of investment on government securities of HBL is higher than that of Nepal SBI bank. Both HBL and Nepal SBI bank invest less on share and debentures of other companies.
- 4 Profitability ratio of both commercial banks shows that both banks are running on profit. Mean return on loan advances ratio, mean return on total assets, mean return on equity ratio shows that HBL has higher return than that of Nepal SBI bank but the ratio of Nepal SBI bank is more variable than that of HBL. But the mean ratio of interest income to total income of HBL is 83.21% and that of Nepal SBI bank is 86.37%. It shows that both bank's main income generating source is investment and loan and advances.
- 5 Growth ratio of investment, Deposit, loan and advances and net profit of HBL is higher than that of Nepal SBI bank. It shows that HBL is running successfully and been able to increase its profit in comparison to Nepal SBI bank.

From the statistical analysis of financial data of both banks it is found that total investment and total deposit of HBL and Nepal SBI bank both has positive relation

Dhungana, (2002), in his thesis, " A Comparative Study on Investment Policy of Nepal Bangladesh Bank and other Joint Venture Banks" tries to compare the investment policy of NB Bank with HBL and Nepal SBI Bank.

Main objectives of study were:

1. To study the fund mobilization and investment policy with respect to fee based off-

balance sheet transaction and fund based on-balance sheet transaction.

2. To evaluate the liquidity, efficiency of assets management and profitability position, the trends of deposit utilization towards total investment and loan and advances growth ratios loan and advances and total investment with respective growth rate of total deposit and net profit.
3. To study the various risks in investment.

Findings and conclusions of the study were as follows:

NBBL has not good deposit collection, it doesn't have made enough cash and bank balance and it has made negligible amount of investments in government securities.

- 1 The assets management ratios were highly variable which reveals NBBL has not followed stable policy.
- 2 NBBL's ratios of OBS operation to loan and advances lower than that of HBL but its ratio is greater than of NSBL.
- 3 The profitability position of NBBL is comparatively not better than that of HBL but better than NSBL.
- 4 The credit risk ratios and interest risk ratios of NBBL is higher than that of HBL and NSBL. Banks profitability solely depends on interest changed by a bank but the high interest rate risk of NBBL shows that bank is failure to maintain this.
- 5 Trends of deposit collection, lending, investment and net profit were not better than HBL but better than NSBL.

2.4 Research Gap

The purpose of the research work is quite different from the studies made by the above person (related to Joint venture banks). The author focuses this study in effectiveness on investment policy analysis of SCBNL and NABIL in comprehensive manner considering the major items. The method of analysis is fully different. Financial tools and statistical tools are used in this study as ratio analysis, trend analysis, and correlation. This study is a little bit different than previous studies. It may be the first research study in the field of investment policy taking the comparative study of SCBNL and NABIL. This study tried to indicate the effectiveness of investment policy of commercial banks.

It is necessary to bring out a fresh study in investment policy of SCBNL and NABIL whether the findings of above studies are still valid or not.

This research study is based on different variable and tools using new data (2003/2004,2007/2008).This study focus only on investment policy of SCBNL and NABIL. The study will be fruitful to those interested person, researchers, teachers, students and businessmen and government for academically as well as policy perspectives.

CHAPTER - III

RESEARCH METHODOLOGY

3.1 Introduction

Research Methodology is a systematic way of solving the research problem. It refers to the methods that are used for conduction of research or performing research operation. Research Methodology depends on various aspect of the research projects. The variable that determine the research methodology of that particular projects are the size of that project, importance of the project, the objective of the study, time frame of the project, impact of the project in the aspects of the human life etc. Research Methodology can be defined as "A systematic Process that is adopted by the researchers in studying a problem with certain objective in view." In another words, research methods are those methods, which are used by the researcher during the course of the studying his/her research problem. This chapter includes Research design, Population and Sample, Nature and Sources of Data, Analysis of Data etc.

3.2 Research Design

A research design is the arrangement of conditions for collection and analysis of data that aim to combine relevance to the research purpose with economy in procedure. Research design is the plan, structure and strategy of investigation conceived so as to obtain answers to research questions and to control variances. To achieve the objective of this study, descriptive and analytical research design has been used. Some financial and statistical tools have also been applied to examine facts and descriptive techniques have been adopted to evaluate investment performance of SCBNL with comparison to NABIL.

3.3 Population and Sample

Under the study of investment practices of Nepalese commercial banks ,the total number of commercial banks including domestic and joint venture banks operating in Nepal is population. At present there are twenty three licensed commercial banks are running in Nepal. All 23 licensed Nepalese CBs will consider as the total population

out of them this study will be concern two CBs as sample. In the sample ,banks are taken according to their rapid growth rate and gradually growth rate which head office is in Kathmandu by which we can compare about the investment practices of this bank. For this population NABIL and SCBNL have been selected as sample and its data related to investment practice are comparatively studied.

3.4 Nature and Sources of Data

The study is conducted on the basis of secondary data. The data relating to investment, deposit ,loan and advances and profit are directly obtained from the balance sheet and profit and loss a/c of the concerned banks. Annual reports published on websites of concern banks. Supplementary datas and information are collected from number of institutions and regulating authorities like Nepal Rastra Bank, website www.nepalstockexchange.com and different related website.

According to the need and objectives all the secondary data are compiled ,processed and tabulated in time series. In order to judge the reliability of data provided by the banks and other sources ,they were compiled with annual reports of auditor..

Similarly ,various data and information are collected from the periodicals, economic journals and managerial magazine and other published and unpublished reports and documents from various sources and websites.

3.5 Methods of Analysis

In this study, various financial, accounting and statistical tools have been used to achieve the objective of the study. The analysis of data will be done according to the pattern of data available. Due to limited time and resources, simple analytical statistical tools such as percentage graph Karl Pearson's coefficient of correlation, regression, the method of least square are used in this study. Likewise, some financial tools such as ratio analysis and trend analysis have also been used for financial analysis.

The various tools in this study have been briefly presented as under.

3.5.1 Financial Tools

Financial tools are used to examine the financial strength and weakness of bank. In this study financial tools like ratio analysis and financial statement analysis have been used.

3.5.1.1 Ratio Analysis

Financial ratio is the mathematical relationship between two accounting figures. "Ratio analysis is a part of the whole process of analysis of financial statement of any business of industrial concern especially to take output and credit decision." (Kothari, K.C. "Quantitative Techniques," Vikash Publishing House Pvt. Ltd, New Delhi, 1984)

Thus, ratio analysis is used to compare a firm's financial performance and status to that of other firm's or to it self overtime. The qualitative judgment regarding financial performance of a firm can be done with the help of ratio analysis. Even though, there are many ratios, only those ratios have covered in these studies, which are related to the investment operation of the bank. This study contains following ratio.

(A) Liquidity Ratios

Liquidity ratios are used to judge the ability to meet its short-term liabilities that are likely to mature in the short period. From them, much insight can be obtained into present cash solvency of the bank and its ability to remain solvent in the event of adversities. It is the measurement of speed with which a bank's assets can be converted into cash to meet deposit withdrawal and other current obligations

(i) Current Ratio

This ratio shows the bank's short-term solvency. It shows the relationship between current assets and current liabilities. Current assets include cash and bank balance, money at call or short notice, loans and advances, investment in government securities and other interest receivables, overdraft, bills purchased and discounted and miscellaneous current assets. Similarly, current liabilities include deposits and other short-term loan, bill payable, tax provision, staff bonus, dividend and miscellaneous current liabilities.

Current ratio is calculated as,

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

The widely accepted standard of current ratios is 2:1 but accurate standard depends on circumstances in case of seasonal business ratio and the nature of business.

(ii) Cash and Bank Balance to Total Deposit Ratio

Cash and bank balances are the most liquid current assets. The ratio measures the percentage of most liquid fund with the bank to make immediate payment to the depositors. This ratio is computed by dividing cash and bank balance by total deposit. This can be presented as,

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

Hence, cash and bank balance includes cash on hand, foreign cash on hand; cheques and others cash items, balance with domestic banks and balance held in foreign banks. The total deposit encompasses current deposits, saving deposits, fixed deposits, money at call and short notice and other deposits.

(iii) Cash and Bank Balance to Current Assets Ratio

This ratio measures the proposition of most liquid assets i.e. cash and balance among the total current assets of the bank. Higher ratios the bank ability to meet its demand for cash. This ratio is computed by dividing cash and bank balance by current assets. This can be stated as.

$$\frac{\text{Cash and bank balance}}{\text{Total assets}}$$

(iv) Investment on Government Securities to Current Asset Ratio

This ratio is calculated to find out the percentage of current assets invested in government securities i.e. treasury bill and development bonds. This ratio is computed by dividing investment on government securities by current assets. We can state it as,

$$\frac{\text{Investment on government securities}}{\text{Total current assets}}$$

Here, investment on government securities includes treasury bill and development

bonds etc.

(v) Loan and Advances to Current Assets Ratio

Loan and advances to current to assets, which generate income for the bank.

Loan and advances to current to Current ratio shows the percentage of loan and advances by current assets. This can be stated as:

$$\frac{\text{Loan and advances}}{\text{Current assets}}$$

The numerator consists of loan, advances, cash credit, and local and foreign bills purchases and discounted.

(B) Asset Management Ratio (Activity Ratios)

Assets management ratio measures how efficiently the bank manages the assets at as command. It is also called as turnover ratio because they indicated the speed with which assets are being converted or turnover. The following ratios are used under this asset management ratio.

(i) Loan and Advances to Total Deposit Ratio

This ratio is calculated to find out, how successfully the bank are utilizing their total deposit on loan and advances for profit generation purpose. Greater ratio implies the better utilization of total deposits. This ratio can be obtained by dividing loan and advances by total deposits, which can be stated as,

$$\frac{\text{Loan and advances}}{\text{Total deposit}}$$

(ii) Total Investment to Total Deposit Ratio

Investment is one of the major forms of credit created to earn income. This implies the utilization of firm's deposit on investment in government securities and shares debentures of other companies and bank. The ratio can be mentioned as;

$$\frac{\text{Total investment}}{\text{Total deposit}}$$

The numerator consists of investment on government securities, investment on debentures and bonds, shares in subsidiary companies, shares in other companies and other investment.

(iii) Loan and Advances to Total Working Fund Ratio

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

$$\frac{\text{Loan and advances}}{\text{Total working fund}}$$

Hence, the denominator includes all assets of on balance sheet items. In other words, this includes current assets, net fixed assets, loans for development banks and other miscellaneous assets but exclude off balance sheet items like letter of credit, letter of guarantee etc.

(iv) Investment on Government Securities to Total Working Fund Ratio

This ratio shows that the bank investment on government securities in comparison to the total working fund. This ratio is calculated by dividing investment on government securities by total working fund. This is presented as,

$$\frac{\text{Investment on government securities}}{\text{Total working fund}}$$

(v) Investment on Shares and Debentures to Total Working Fund Ratio

This ratio shows the bank investment in shares and debenture of the subsidiary and other companies. This ratio can be derived by dividing investment on shares and debentures by total working fund, which can be mentioned as,

$$\frac{\text{Investment on shares \& debentures}}{\text{Total working fund}}$$

The numerator includes investment on debentures bonds and share of other companies.

(C) Profitability Ratios

Profitability ratios calculated to measure the efficiency of operation of a firm in term of profit. It is the indicator of the financial performance of any institution. This implies that higher the profitability ratio, better the financial performance of the bank

and vice versa. Profitability position can be evaluated through following different way:

(i) Return on the Working Fund Ratio (ROA)

This ratio measures the overall profitability of all working funds i.e. total assets. It is also known as return on assets (ROA). A firm has to earn satisfactory return on assets or working fund for its survival. This ratio is calculated by dividing net profit (loss) by total working fund. This can be mentioned as,

$$\frac{\text{Net profit (loss)}}{\text{Total working fund}}$$

The number indicates the portion of income left to the internal equities after all costs, charges have deducted.

(ii) Return on Loan and Advances Ratio

This ratio indicated how efficiently the bank has employed its resources in the form loan and advances. This ratio is compute by dividing net profit (loss) by loan and advances. This can be expressed as,

$$\frac{\text{Net profit}}{\text{Loan and advances}}$$

(iii) Total Interest Earned to Total Working Fund Ratio

This ratio is calculated to find out the percentage of interest of interest earned to total assets (working fund). Higher ratio implies better performance of the bank its terms of interest earning on its total working fund. This ratio is calculated by dividing total interest earned by total working fund. This is stated as,

$$\frac{\text{Total interest earned}}{\text{Total working fund ratio}}$$

Here, the numerator consists of total interest expenses on deposits, loan and advances, borrowing and other deposits.

(D) Risk Ratios

Risk taking is the prime business of bank's investment management. It increases effectiveness and profitability of the bank. These ratios indicated the amount of risk associated with the various operations, which ultimately influences the banks investment policy. The following ratios are evaluated under this topic.

(i) Credit Risk Ratio

Credit risk measures the possibility that loan will not be repaid or that investment will deteriorate in quality or go into default with consequent loss to the bank. By definition, credit risk is expressed as the percentage of non-performing loan to total loan and advances. Here, this ratio is derived by dividing total loan and advances by total assets. This can be stated as,

$$\frac{\text{Total loan and advances}}{\text{Total assets}}$$

(ii) Liquidity Risk Ratio

The liquidity risk ratio the level of the risk associated with the liquid assets i.e. cash, bank balance that are kept in the bank for the purpose of satisfying the depositor's demand for cash. Higher the ratio, lower is the risk. This ratio is calculated by dividing cash and bank balance by total deposits. This is mentioned as,

$$\frac{\text{Total cash \& bank balance}}{\text{Total deposits}}$$

3.4.1.2 Growth Ratio

Growth Ratios is directly related to fund mobilization and investment management of commercial banks. It shows how well the bank is maintaining its commercial and economic position. It is computed by dividing last year figure by first year and then referring to the computed interest tables. A higher growth rate indicates better performances of concerned banks and vice versa. To examine and analyze the expansion ad growth of the bank business, following growth ratios are calculated.

3.4.1.1 Growth Ratios of Total Loan and Advances

Loan and advances is the major function of the commercial banking. It is the major activity for the bank for making profit. Growth ratio in loans and advances determines the bank's performance. This ratio can be computed as:

$$\begin{aligned} & \text{Yearly change of total loan and advances in \%} \\ = & \frac{\text{Current year's total loan and advances - previous year's total loan and advance} \times 100}{\text{Previous year's total loan and advances}} \end{aligned}$$

3.4.1.2 Growth Ratio of Total Investment

Investment is an integral part of banking. The profitability of the bank depends upon how it invests its deposits. The deposits should be invested in profitable sectors. It determines the proper utilization of its funds. This ratio can be computed as:

$$\begin{aligned} & \text{Yearly change of total investment in \%} \\ = & \frac{\text{Current year's total investment - previous year's total investments} \times 100}{\text{Previous year's total investment}} \end{aligned}$$

3.4.1.3 Growth Ratio of Total Deposit

The main sources for the bank are deposits made by customers, which can be mobilized by investing in different profitable areas for making profit. In order to make sufficient

amount for investment, the bank should increase its deposit.

$$\begin{aligned} & \text{Yearly change of total deposit in \%} \\ = & \frac{\text{Current year's total deposit - previous year's total deposit} \times 100}{\text{Previous year's total deposit}} \end{aligned}$$

3.4.1.4 Growth Ratio of Net Profit

This ratio reveals the overall performance of the banks.

The ratio can be expressed as below:

$$\begin{aligned} & \text{Yearly change of net profit in \%} \\ = & \frac{\text{Current year's net profit - previous year's net profit} \times 100}{\text{Previous year's net profit}} \end{aligned}$$

3.4.2 Statistical Analysis

Some important statistical tools are used to achieve the objective of the study. In this study, statistical tools such as mean, trend analysis, standard deviation, and probable error and co-efficient of correlation has been used.

3.4.2.1 Mean

The mean ,or average return is defined as the sum of observation divided by the no.of observation.It represents the entire data by a single value.It provides the gist and gives the bird's eye view of the huge mass of unwieldy numerical data .It is calculated as:

$$\bar{X} = \sum \frac{X}{N}$$

3.4.2.1. Standard Deviation (S.D.)

The absolute dispersion is measured by standard deviation. The higher the value of standard deviation, the higher the variability and lower the of standard deviation, lower the variability. the concept of standard deviation was introduced by Karl Pearson in 1823. It is denoted by small Greek letter 0 (read as sigma). Standard deviation is calculated with the help of the following formula.

$$\sigma = \sqrt{\frac{(\sum X - \bar{X})^2}{N}}$$

3.4.2.2 Coefficient of Correlation Analysis (r)

Correlation analysis enables us to determine the direction and relationship between two variables. It does not tell anything about cause and effect relationship. Like, if there is a high degree of correlation between two variables, we cannot say which the cause is and which the effect is. "Correlation may be defined as the degree of linear relationship existing between two or more variables. Two variables are said to be correlated when the change in the value of advertisement are associated with the change in sales; similarly, changes in price are accompanied by changes in quantity demanded." (Sthapit and Etal; 2003:362). In this research, Karl Pearson's coefficient is used which can be denoted by 'r' the value of correlation coefficient always lies between + 1. if the value of r is '+1'; it says that there is perfect positive correlation

between two variables. But if the value of 'r' is '0', there is no relationship between the two variables. Nearer the value of r to +1, closer will be the relationship between two variables and nearer the value of r to 0, lesser will be the relationship.

The value of r can be derived with the help of the following formula:

$$\frac{\sum (X-\bar{X})(Y-\bar{Y})}{\sqrt{\sum (X-\bar{X})^2 \sum (Y-\bar{Y})^2}}$$

Where,

r = coefficient of correlation

x = independent variable

y = dependent variable

n = no. of periods

Under this topic, Karl Pearson's correlation coefficient is used to measure the degree of relationship between the following variables:

- a) Coefficient of correlation between total deposit and net profit
- b) Coefficient of correlation between deposit and total investment
- c) Coefficient of correlation between deposit and Loan and Advances
- d) Coefficient of correlation between Current assets and Current Liabilities

3.4.2.3 Coefficient of Determination (r^2)

Coefficient of determination(r^2) measures the percentage of the variance of the dependent variable ,which is explained by the independent variable .The relationship is found by squaring the correlation coefficient ,r. has the statistical property of conveying the percentage of total variation between the two variables explained by the regression line.

It is calculated as

$$r^2 = r^2$$

The value of r can be derived with the help of the following formula

$$\frac{\sum (X-\bar{X})(Y-\bar{Y})}{\sqrt{\sum (X-\bar{X})^2 \sum (Y-\bar{Y})^2}}$$

Where,

r = coefficient of correlation

x = independent variable

y = dependent variable

n = no. of periods

r = correlation coefficient

r^2 = square of correlation coefficient

3.4.2.3 Coefficient of Variation

The coefficient of variation is the most commonly used measure of relative variation. It is the relative measures of dispersion, comparable across distribution,. Which is defined as the ratio of the standard deviation to the mean expressed in percent. It is used in such problems where the researcher wants to compare the variability of data more than two years. A series with smaller C.V. is said to be less variable or more consistent or more homogenous or more uniform or more stable than the others and vice versa. It is calculated as;

$$\text{Coefficient of Variation} = \frac{\text{Standard Deviation}}{\text{Mean}} \times 100 \%$$

$$\text{C.V.} = \frac{\sigma}{X}$$

Where,

X = Mean

σ = Standard Deviation

C.V. = Coefficient of Variation

3.4.2.4 Probable Error (PE)

By using probable error, we can measure whether the calculated correlation coefficient is reliable and significant or not. Probable error can be computed by using the following formula:

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

Where,

r = correlation of coefficient.

n = Number of pairs of observation.

This is used to test whether the correlation between the variables is significant or not in the following ways:

If $r < \text{PE}$, it is insignificant, no evidence of correlation

If $r > \text{PE}$, it is significant.

In other than these cases nothing can be concluded.

3.4.2.5 Trend Analysis

There most popular and mathematical method of determining trend of time series is the least square method. Here, using this square method, it has been estimated the future trend values of different variable. For the estimation of linear trend line following formula has been used.

$$Y = a + bx$$

Where,

Y = Dependent Variable

X = Independent Variable

a = Intercept of the line.

b = Slope of the line (shows the average changes in the value of Y as a result of one unit change in the value of X)

The value of the constant 'a' and 'b' can be determined by solving the following two normal equations:

$$\sum Y = na + b \sum x$$

$$\sum xy = a \sum x + b \sum X^2$$

By using this method, trend of following variables is conducted:

1. Trend analysis of the total deposit
2. Trend analysis of loan and advances.
3. Trend analysis of total investment
4. Trend analysis of total net profit

CHAPTER - IV

DATA PRESENTATION AND ANALYSIS

In this chapter, the collected data have been presented and analyzed to measure the various dimension of the problem of the study and the major findings of the study are presented systematically. The purpose of this chapter is to study, evaluate and analyze those major financial and statistical performances which are mainly related to investment management and fund mobilization of SCBNL in comparison to that of NABIL. There are many types of financial ratios but only those ratios are calculated and analyzed, which are very important to evaluate fund mobilization of commercial bank. Necessary figures and tables are also presented in this part to describe about the investment mechanism of the banks

4.1 Analysis of Secondary Data

Financial ratios are the mathematical relationship between two accounting figures. It is used to evaluate a firm's financial performances and status of other firms. The quantitative judgments have gone down regarding financial performances of the firm with the help of ratio analysis. In this study all types of ratios are not done, only those ratios that are important from the point of view of the fund mobilization and investment are calculated. These are as follows:

4.1.1 Analysis of Liquidity Position

Liquidity ratio measures the firm's ability to meet its measuring short term obligations current assets, and liabilities involve and to maintain more effectible for the short term obligation that is commonly based on within one accounting period. Liquidity ratio measures the ability of the firm to meet its current obligation. A commercial bank must maintain its satisfactory liquidity position to meet the credit need of the community. Demand for the deposits, with drawls and pay maturity in time and convert non-cash assets into cash to satisfy immediate need without loss to bank and consequent impact or long run profit. Analysis of liquidity needs the preparation of cash budget liquidity ratios by establishing a relationship between cash and other

current assets to current obligations, which provide a guide measure of liquidity.

1. Analysis of Current Ratio

Current assets are those assets which can be converted into cash within one accounting period. And the current liabilities are those liabilities, which should be paid within the one accounting period. Current ratio indicates the ability of the bank to meet its current obligation. This is the broad measure of liquidity position of the financial institutions. Current ratio occurs by dividing current assets to current liabilities that indicates the ability of a bank to meet its current obligations.

We have,

$$\text{current ratio} = \frac{\text{Total current Assets}}{\text{Total current liabilities}}$$

Where,

Current assets consist of cash and bank balance, money at short call, loan and advances, Investments in government securities for short-term period, and other miscellaneous current assets. Current liabilities consist of deposits, bills payable, tax provision, staff bonus, dividend payable and other miscellaneous current liabilities.

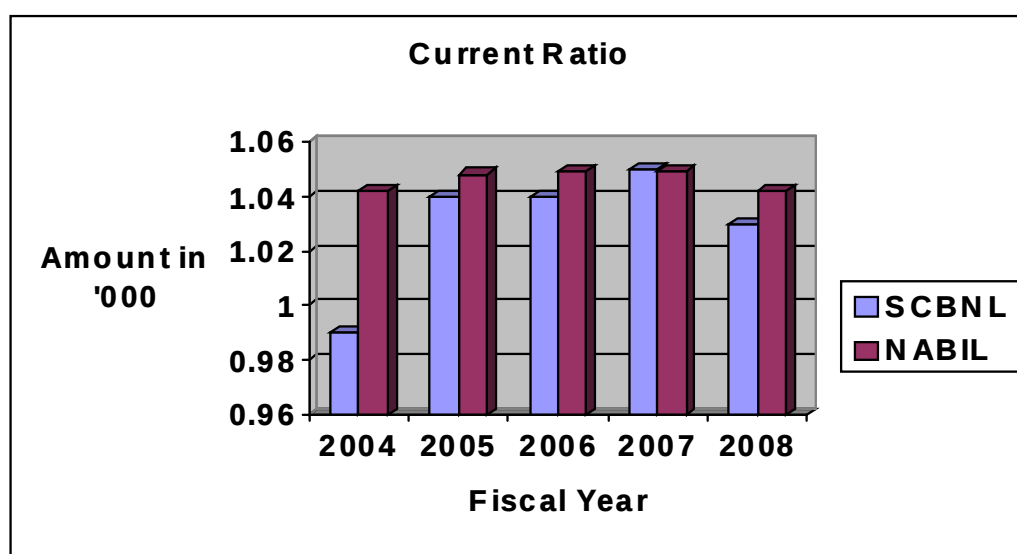
Current ratio of SCBNL and NABIL from the fiscal years 2004 to 2008 are given below in the table no: 4.1.

Table 4.1
Current ratio (Times)

Bank	2004	2005	2006	2007	2008	Mean	S.D	C.V.(%)
SCBNL	0.99	1.04	1.04	1.05	1.03	1.032	0.02279	2.15%
NABIL	1.042	1.048	1.049	1.049	1.042	1.046	0.00328	0.314%

(Source: appendix - 1)

Figure 4.1



From the above table it is clear that C.R of NABIL is higher than SCBNL's C.A. This means NABIL is capable to pay their current obligation. The above table shows that the CR of SCBNL has fluctuating trend but the NABIL has increasing trend.

In average current ratio of NABIL is higher than SCBNL. So SCBNL has not sound liquidity position in compared to NABIL. Like wise, the coefficient of variation (C.V) of SCBNL is higher than of NABIL i.e. 2.15% > 0.314%. It can be said that CA of SCBNL is less consistent than that of NABIL.

2. Cash and Bank Balance to Total Deposit Ratio:

Cash and bank balance are the most liquid current assets. The ratio between cash and bank balance to total deposit measure the ability of the bank to meet the unanticipated cash and all types of deposits. Higher the ratio the greater will be the ability to meat sudden demand of deposit. But very high ratio is not desirable since bank is to pay

interest on deposits.

We have,

$$\text{Cash and bank balance to total deposit Ratio} = \frac{\text{Cash and Bank balance}}{\text{Total deposit}}$$

Where,

Cash and Bank balance includes cash on hand, foreign cash on hand, cheques and others cash items and balance with domestic banks and balance field in foreign banks.

The total deposit encompasses current deposit. Saving deposit, fixed deposit, money at short call and other deposits.

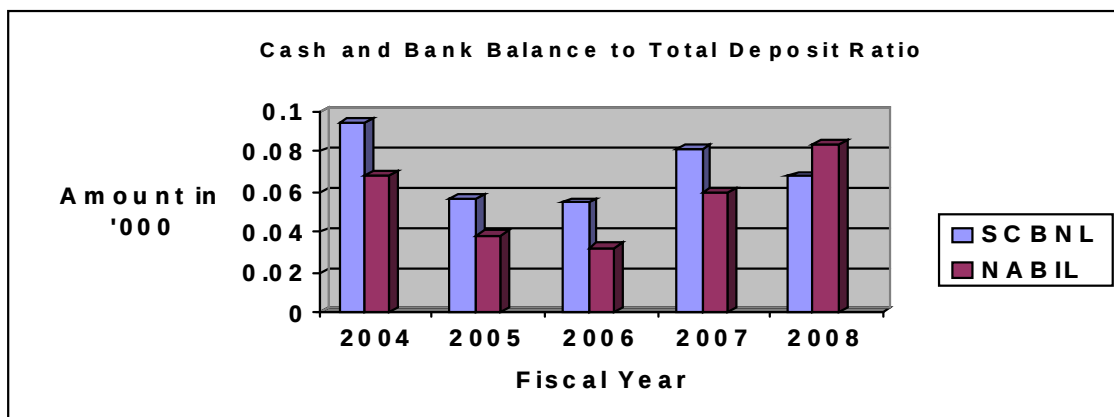
Cash and bank balance to total deposit ratio of SCBNL and NABIL from the fiscal year 2004 to 2008 are given below in table no: 4.2.

Table no: 4.2
Cash and Bank Balance to Total Deposit Ratio (%)

Bank	2004	2005	2006	2007	2008	Mean	S.D.	C.V.(%)
SCBNL	0.095	0.057	0.055	0.082	0.068	0.0714	0.01521	21.30%
NABIL	0.0686	0.0383	0.0325	0.0599	0.0837	0.057	0.0194	33.39%

(Source: appendix - 2)

Figure 4.2



The above table shows that the comparative cash and bank balance to deposit ratio of SCBNL and NABIL are in fluctuating trend.

The mean ratio of SCBNL is higher than NABIL i.e. $0.0714 > 0.057\%$. The C.V. of SCBNL is less than NABIL i.e. $21.30 < 33.33$. So, it indicates that SCBNL shows

higher consistent than that of NABIL.

Though high ratio indicated its high ability to pay for depositors and to invest the different sector but also very high ratio shows the inefficiency. A high ratio of non-earning cash and bank balance may be unfit, which indicates the banks unavailability to invest its fund in income generation .

The above analysis help to conclude that the cash and bank balance of NABIL with respect to deposit is better against the readiness to deposit is better against the readiness to serve its customer deposit than SCBNL. It implies the better liquidity position of NABIL than SCBNL from the few point of cash and bank to total deposit.

3. Cash and Bank Balance to Current Assets ratio:

This ratio shows the bank liquidity on the basic of cash and bank balance that is most liquid assets. Higher ratio indicates the bank ability to meet the daily cash requirement of their customer deposit and vice-versa. But higher is not preferred as the bank has to pay more interest in deposit and will increase 6th cost of fund. A lower ratio is also very dangerous as the bank may not be able to make payment against the cheques presented by customers.

Therefore, the bank has to maintain the cash and bank balance to current assets ratios in such a manner that it should have the adequate cash for the customers demand against deposit when required and less interest is required to be paid against the cash deposit.

We have,

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

Where,

Cash and bank balance includes cash and hand including foreign cheques, other cash item and balance with domestic banks and abroad.

Current assets consist of cash and bank balance, investment in government securities other interest receivable money at short call and other miscellaneous current assets.

Cash and bank balance to current assets ratio of SCBNL and NABIL from the fiscal year 2004 to 2008 are given below in table no: 4.3.

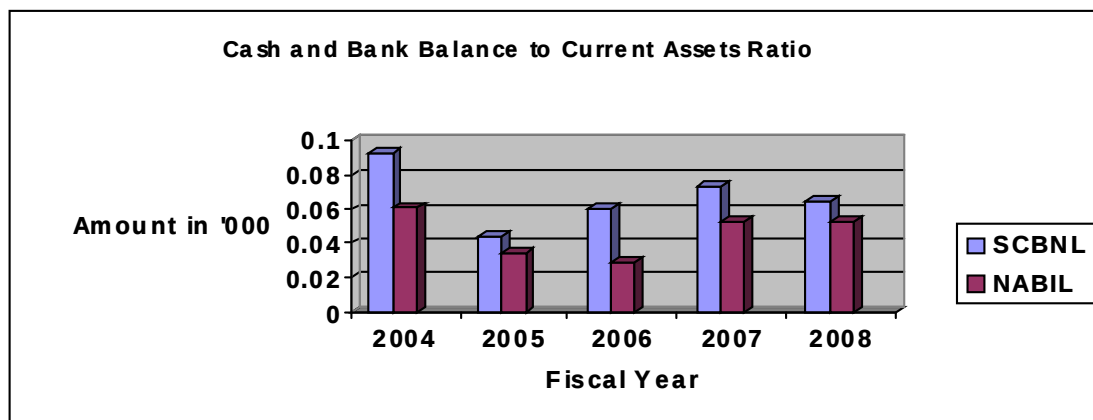
Table no: 4.3

Cash and Bank Balance to Current Assets Ratio (%)

Bank	2004	2005	2006	2007	2008	Mean	S.D.	C.V.(%)
SCBNL	0.0919	0.0444	0.0601	0.0725	0.0643	0.06638	0.01503	22.65%
NABIL	0.0609	0.0343	0.0293	0.0528	0.0528	0.05035	0.01410	28

(Source: appendix -3)

Figure no. 4.3



From the above table, we can say that cash and bank balance to CA ratio of SCBNL and NABIL are in fluctuating trend.

The mean ratio of SCBNL is higher than NABIL i.e. $0.06638 > 0.05035$. The C.V of NABIL is higher than SCBNL i.e. $28 > 22.65$. So, it indicates that SCBNL is more consistent than NABIL. So, it can be concluded that capacity for maintained cash and bank balance of SCBNL is higher than NABIL.

4. Investment on Government Security to Current Assets Ratio:

The commercial banks are interested to invest their funds in various government securities. The government securities are the risk less investment alternatives. But the government securities are not so much liquid as cash and bank balance. Although they can be easily sold in the market. They can be converted into cash in other way. The main purpose of this ratio is to examine the portion of commercial banks (i.e. SCBNL

and NABIL) current assets that is invested on different government securities.

We have,

Investment on government security to current assets ratio

$$= \frac{\text{Investment on Government Securities}}{\text{Current Assets}}$$

Where,

Investment on government securities includes treasury bills and development bonds etc.

Investment on government securities to current assets ratio of SCBNL and NABIL from fiscal year 2004 to 2008 are given below in table no: 4. 4

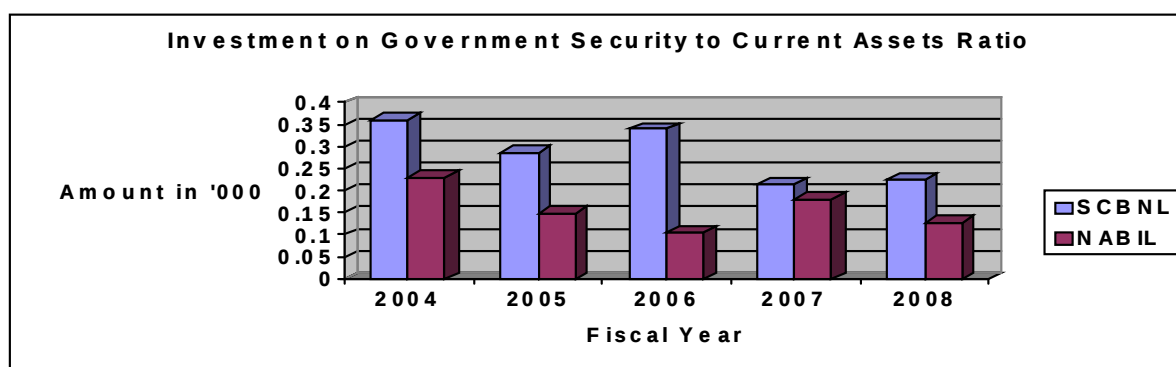
Table no: 4.4

Investment on Government Security to Current Assets Ratio (%)

Bank	2004	2005	2006	2007	2008	Mean	S.D.	C.V.(%)
SCBNL	0.3611	0.2877	0.3399	0.2154	0.2246	0.2857	0.1596	55.86%
NABIL	0.2308	0.1483	0.1072	0.1817	0.1293	0.1595	0.04324	27.10%

(Source: appendix - 4)

Figure no. 4.4



The mean ratio of SCBNL is higher than NABIL i.e. $0.2857 > 0.1595$. The C.V. of NABIL is lower than SCBNL i.e. $27.10 < 55.86$.

It can be concluded that SCBNL has Invested its more portion of current assets as government securities than that of NABIL. Investment in government securities to current assets ratio of SCBNL is higher than of NABIL. Which indicates that the better short term liquidity position in SCBNL.

5. Loan and Advances to C.A Ratio:

Loan and advances are also included in the C.A of commercial bank's because generally it provides short-term loan, advances, overdrafts, cash credit and foreign bill purchased and discounted.

All commercial banks mobilize their collected funds as loan and advances to the customers. If sufficient loan and advances cannot be graded, it should be pay interest on those utilized deposit funds and may be lose some earnings, 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, a bank must maintain its loan and advances in appropriate level to find out portion of current assets, which is granted as loan and advances.

We have,

$$\text{Loan and advances to C.A Ratio} = \frac{\text{Loan and advances}}{\text{C.A}}$$

Loan and advances to CA ratio of SCBNL and NABIL from the fiscal year 2004 to 2008 are given in table no:4.5.

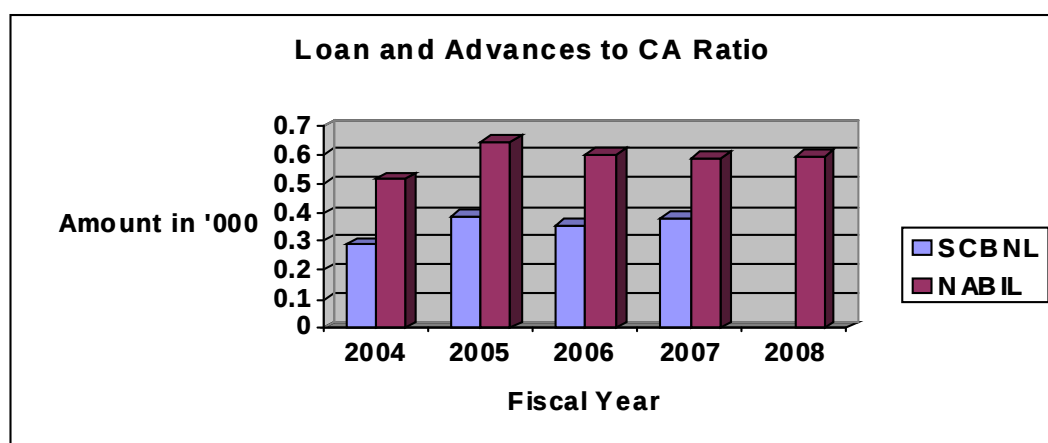
Table no: 4.5

Loan and Advances to CA Ratio (%)

Bank	2004	2005	2006	2007	2008	Mean	S.D.	C.V.(%)
SCBNL	0.292	0.3838	0.3570	0.3773	0.43.4	0.3679	0.04527	12.30%
NABIL	0.5147	0.6502	0.6021	0.5877	0.5947	0.5898	0.0435	7.37%

(Source: appendix - 5)

Figure no. 4.5



The above table shows that NABIL loan and advances to current ratio is increasing from year 2004 to 2007 but it is decreasing in year 2007. SCBNL has also increasing from year 2004 to 2005 but it is decreasing in year 2006. The highest ratio of SCBNL is 43.04 in year 2008 and lowest ratios 29.2 in year 2004. NABIL highest ratio is 65% in year 2005 and lowest ratio is 51.47% in year 2003.

The average mean ratio of NABIL is higher than SCBNL i.e. $0.5898 > 0.3679$ and coefficient of variation of SCBNL is higher than NABIL i.e. $12.30 > 7.37\%$. It indicates that SCBNL is less consisted than that of NABIL.

4.1.2 Assets Management Ratio (Activity ratio)

Assets management ratio measures the efficiency of an organization to manage its assets in profitable and satisfactory manner. A commercial bank must manage its assets properly to earn high profit. Under this chapter, following ratios are calculated.

1. Loan and Advance to Total Deposit Ratio:

This ratio measures the banks success to mobilize their funds in loan and advances for the purpose of income generation. A high ratio indicates the better mobilization of collection deposit and vice versa. But it is known that high ratio may not be better from the liquidity point of view.

We have,

$$\text{Loan and advance to total ratio} = \frac{\text{Loan and advances}}{\text{Total deposit}}$$

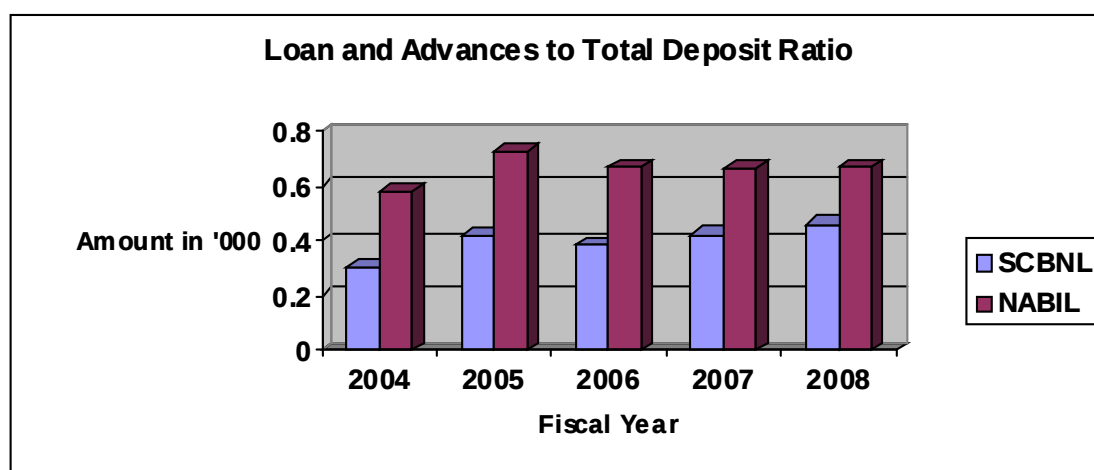
Loan and advance to total deposit ratio of SCBNL and NABIL from fiscal year 2003 to 2007 are given below in table no:4. 6.

Table no: 4.6
Loan and Advances to Total Deposit Ratio (%)

Bank	2004	2005	2006	2007	2008	Mean	S.D.	C.V.(%)
SCBNL	0.3029	0.4212	0.3857	0.4261	0.4612	0.3997	0.05368	13.42%
NABIL	0.5799	0.7257	0.6679	0.6659	0.6694	0.6617	0.0467	7.056%

(Source: appendix - 6)

Figure no. 4.6



The above table shows that both banks have fluctuating trend of ratio during the study period. The SCBNL has highest ratio 46.12% in year 2008 and lowest ratio is 30.29% in year 2004. Similarly NABIL has highest ratio 72.57% in year 2005 and lowest ratio 57.99% in year 2004.

In average, SCBNL has mentioned lower total investment to total deposit ratio than NABIL i.e. $0.3997 < 0.6617\%$. But the coefficient of variation (C.V) of NABIL is lower than SCBNL i.e. $7.056 < 13.42\%$. This implies that NABIL is more consistent than SCBNL.

2. Loan and Advances to Total Working Fund Ratio:

Loan and advances is an important part of total working fund. Commercial bank must be very careful in success in mobilizing their assets loan and advances for the purpose if income generation. A high ratio indicates better in mobilization of funds as loan and

advances and vice-versa.

We have,

$$\text{Loan and advances to total working fund ratio} = \frac{\text{Loan and advances}}{\text{Total working fund}}$$

Where,

Total working fund means total assets. It includes current assets, Fixed assets, other assets, Investment and loan and advances etc.

Loan and advances to total working fund ratio of SCBNL and NABIL from the fiscal year 2004 to 2008 are given below in table no: 4. 7.

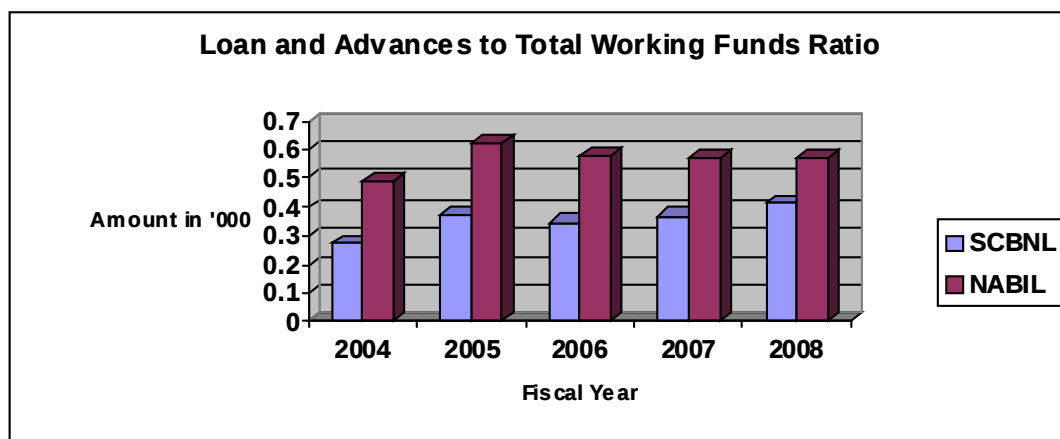
Table no: 4.7

Loan and Advances to Total Working Funds Ratio (%)

Bank	2004	2005	2006	2007	2008	Mean	S.D.	C.V.(%)
SCBNL	0.2711	0.3719	0.3466	0.3673	0.4115	0.3536	0.04633	13.09%
NABIL	0.4890	0.6203	0.5787	0.5703	0.5746	0.5668	0.0427	7.54%

(Source: appendix - 7)

Figure no. 4.7



The above table reveals that both banks have fluctuating trend regarding the ratio. During the study period SCBNL has highest ratio 41.15% in year 2008 and lowest ratio 27.11% in year 2004. Similarly NABIL has highest ratio 62.03% in year 2005 and lowest ratio in 48.90% in year 2004.

On the basic of mean ratio NABIL is greater than SCBNL i.e. 0.5668%>0.3536%.

This implies NABIL is in strong condition to mobilize its total working fund as loan and advances than SCBNL. Coefficient by variation of NABIL is lower than that of SCBNL i.e. 7.54 % < 13.09%. It indicates that NABIL is more consistent than SCBNL.

3. Total Investment to Total Deposit Ratio:

This ratio measures the extend to which the banks are able to mobilize their deposit on investment in various securities in. A high ratio indicates the success to mobilize the banking funds as investment and vice-versa.

We have,

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

Total Investment to total deposit ratio of SCBNL and NABIL from the fiscal year 2004 to 2008 are given below in table no:4. 8.

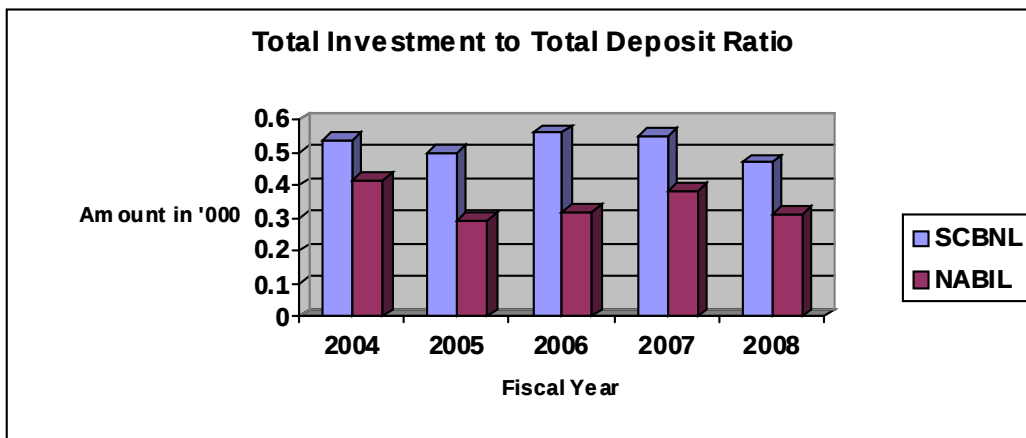
Table no: 4.8

Total Investment to Total Deposit Ratio (%)

Bank	2004	2005	2006	2007	2008	Mean	S.D.	C.V.(%)
SCBNL	0.5368	0.5018	0.5571	0.5499	0.4674	0.5226	0.03351	6.41%
NABIL	0.4132	0.2925	0.3193	0.3832	0.3114	0.3492	0.0415	13.42%

(Source: appendix- 8)

Figure no. 4.8



The above table shows that both banks have fluctuating trend of ratio during the study period. The SCBNL has highest ratio 55.71% in years 2006 and lowest ratio 46.74% in year 2008. Similarly NABIL has highest ratio 41.32% in year 2004 and lowest ratio 29.25% in year 2005.

In average, SCBNL has mentioned highest total investment to total deposit ratio than NABIL i.e., $0.5226 > 0.3492$. But the coefficient of variation (C.V) of SCBNL is lower than NABIL i.e. $6.41 < 13.42\%$. This implies that SCBNL is more consistent than NABIL.

4. Investment on Government Securities to Total Working Fund:

A bank mobilize its fund in various ways to some extent commercial bank seems to utilize its fund by purchasing government securities. A government security is a risk free, investment. This ratio is very important to know the extent to which the banks are successful in mobilizing their total fund on different types of government securities of generate profit. A high ratio includes better mobilization of funds as invest on government security and vice-versa.

We have,

Investment on government securities to total working fund ratio =

$$\frac{\text{Investment in govt. securities}}{\text{Total working fund}}$$

Investment in government to total working fund ratio of SCBNL and NABIL from is

fiscal year 2004 to 2008 are given below in table no: 9.

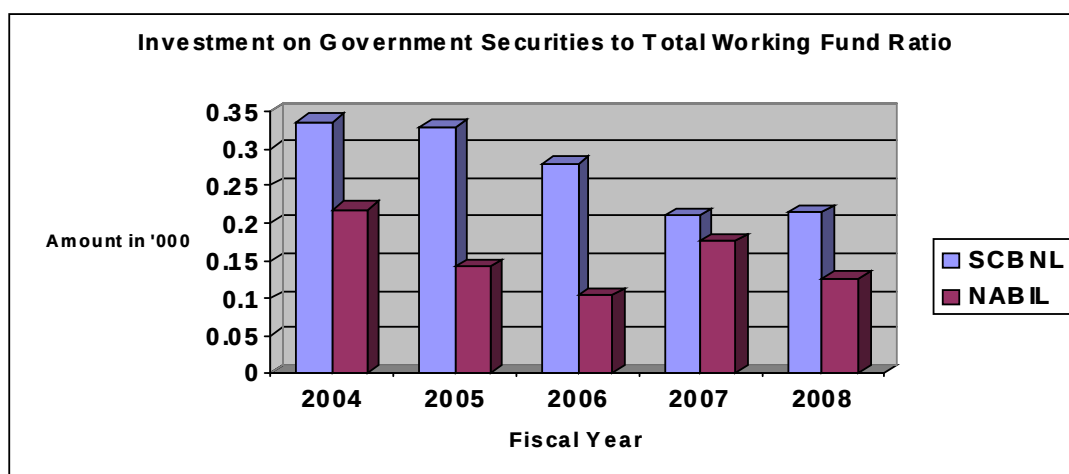
Table no: 4.9

Investment on Government Securities to Total Working Fund Ratio (%)

Bank	2004	2005	2006	2007	2008	Mean	S.D.	C.V.(%)
SCBNL	0.3362	0.3290	0.2797	0.2096	0.2147	0.29	0.048	16.44%
NABIL	0.2192	0.1415	0.1030	0.1763	0.1249	0.1529	0.0408	26.70%

(Source: appendix - 9)

Figure no. 4.9



The above table shows that the investment on government security to total working fund ratio of both SCBNL and NABIL has fluctuating trend. During the study period the highest ratio of SCBNL is 33.62% in year 2004 and lowest ratio is 20.96% in year 2007. Similarly, NABIL has highest ratio 21.9% in year 2004 and lowest ratio in 10.3% in year 2006.

In average, SCBNL has maintained higher mean ratio than NABIL i.e. $0.295 > 0.1529$. This implies that the position of SCBNL is better than NABIL. The C.V of SCBNL is lower than NABIL i.e., $16.44\% < 26.70\%$. That means SCBNL is more consistent than NABIL.

5. Investment on Share and Debenture to Total Working Fund Ratio:

The total investment has been split out into two parties i.e. investment on share and debenture. During the study period, most of the commercial banks in Nepal have purchased share of regional development bank. But some of these have purchased the shares of other companies too.

Investment on share and debenture to total working fund ratio reflects the extent on which the banks are successful to mobilize their total assets on purchase of share and debenture of other companies to generate incomes and utilize excess fund. A high ratio indicated more portion if investment on share and debenture out if total working fund and vice-versa.

We have,

Investment on share and debentures to total working funds ratio.

$$= \frac{\text{Investment on share and debenture}}{\text{Total working fund}}$$

Investment on share and debenture to total working fund ratio of SNBCL and NABIL from the fiscal year 2004 to 2008 are given below in table No. 4.10.

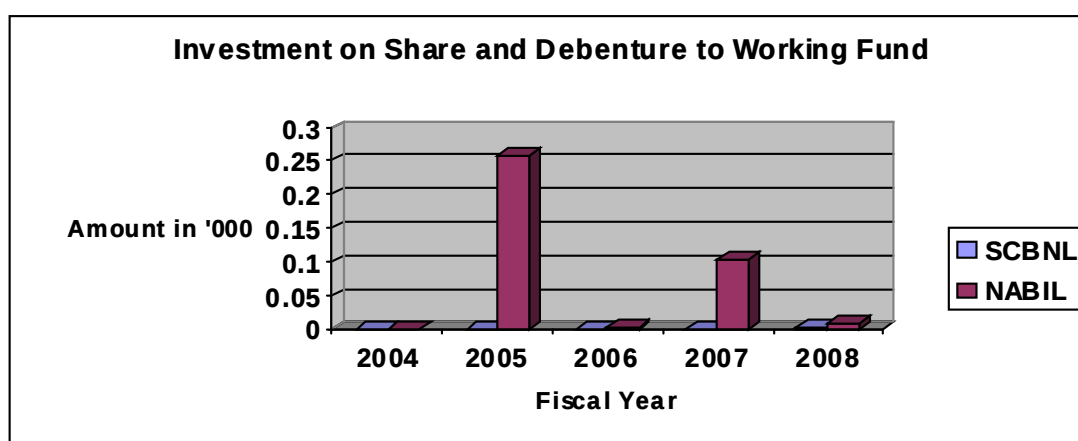
Table no. 4.10

Investment on Share and Debenture to Working Fund (%)

Bank	2004	2005	2006	2007	2008	Mean	S.D.	C.V.(%)
SCBNL	0.00046	0.00059	0.00058	0.00153	0.003419	0.0013148	0.001156	87.92%
NABIL	0.001314	0.259	0.00465	0.1049	0.00868	0.102068	0.008469	82.97%

(Source: Appendix. 10)

Figure no. 4.10



4.1.3 Profitability Ratio

The banks acquire profit by providing different services to its customers or by making investment of different kinds. Suffering profit is must to have good liquidity. To grab investment opportunities expand banking transaction, finance government in need of development fund, overcome the future contingencies and need fixed internal obligation for a bank profitability ratios measures the efficiency of banks.

Profitability ratios calculated to measure the efficiency operations of firms in term of profit. It is the indication of the financial performance of any institution. This implies that higher profitability ratios, better the financial performance of the bank and vice-versa. Profitability position can be evaluated through following different ratios.

1. Return on Total Working Fund Ratio

Return is the result of investment and it measures the profit earning capacity by utilizing available resources i.e. total assets. Return will be higher if the banks working fund is well manage and are efficiently utilized, maximizing taxes with in legal options available will also improve the return.

We have,

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

Where,

Net profit includes the profit that is left to internal equities after all costs charges have deducted.

Return on total working fund ratio of SCBNL and NABIL from the fiscal year 2004 to 2008 are given below in table no: 4.11.

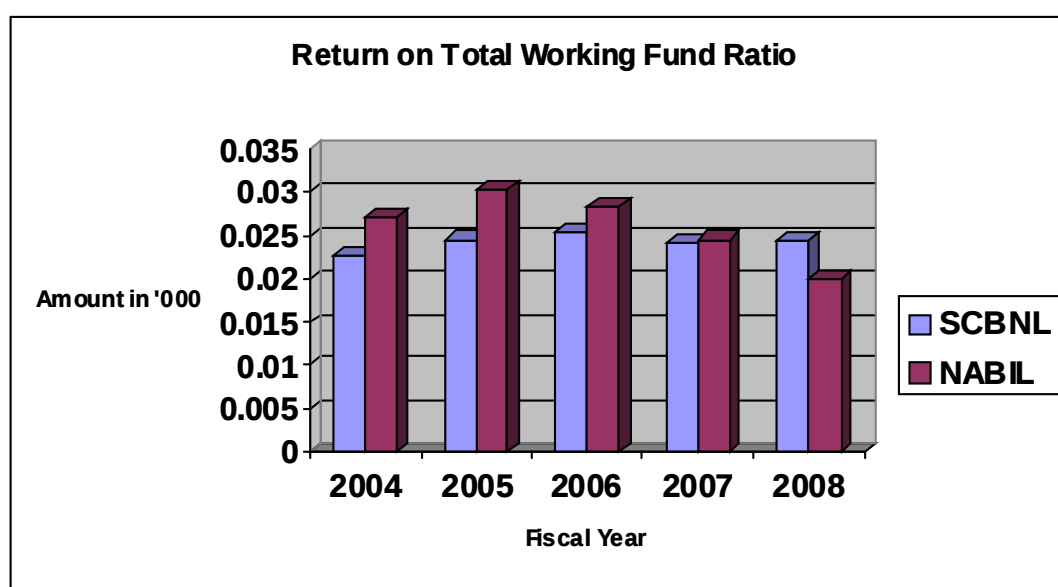
Table no: 4.11

Return on Total Working Fund Ratio (%)

Bank	2004	2005	2006	2007	2008	Mean	S.D.	C.V.(%)
SCBNL	0.0227	0.0246	0.0255	0.0242	0.0245	0.0243	0.0009099	3.74%
NABIL	0.0271	0.0304	0.0284	0.0246	0.0200	0.0261	0.003584	13.73%

(Source: appendix – 11)

Figure no. 4.11



The above table shows that the profitability ratio of both banks are fluctuating trend. SCBNL has highest ratio 2.55% in years 2006 and lowest ratio 2.27% in year 2004. NABIL has highest ratio 3.04% in years 2005 and lowest ratio is 2.% in year 2008.

The mean ratio of NABIL is higher than SCBNL i.e. $0.0261 > 0.0243$. So NABIL is high efficiency to earn net profit than SCBNL. Similarly, co-efficient of variation of NABIL is higher than SCBNL i.e. $13.73 > 3.74$. This implies that NABIL ratios are less consistent than SCBNL. From the above figure, it can be said that NABIL is strong position in the earning capacity by utilizing available resources than that of SCBNL.

2. Return on Loan and Advances Ratio:

It measures the earning capacity of commercial banks on its deposits mobilized on loan and advances include loan, cash credit, overdrafts and bills purchased and discounted.

We have,

$$\text{Return on loan and advances ratio} = \frac{\text{Net profit}}{\text{Loan \& advances}}$$

Return on loan and advances ratio of SCBNL and NABIL from the fiscal year 2004 to 2008 are given below in table no: 4.12.

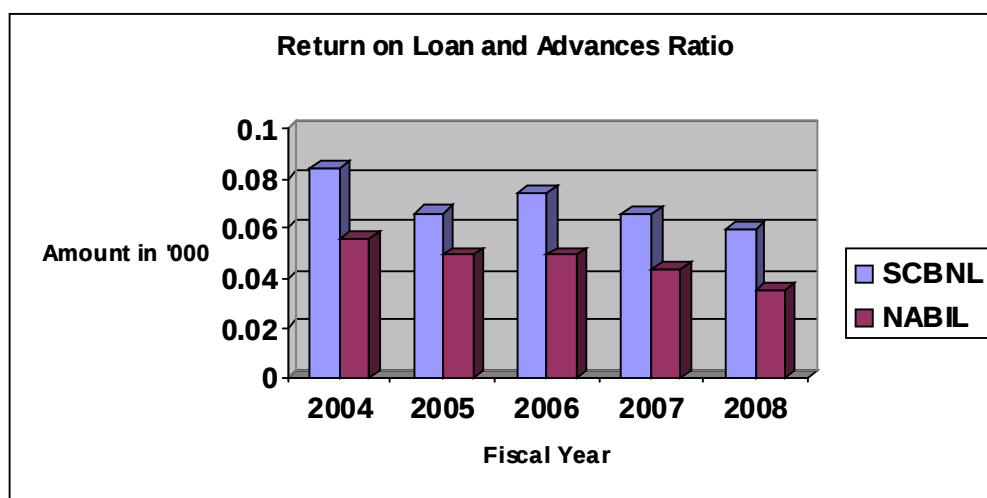
Table no: 4.12

Return on Loan and Advances Ratio (%)

Bank	2004	2005	2006	2007	2008	Mean	S.D.	C.V.(%)
SCBNL	0.0837	0.0662	0.0736	0.0658	0.0596	0.06978	0.0082539	11.83%
NABIL	0.0556	0.0491	0.0491	0.0433	0.0349	0.0464	0.00694377	14.96%

(Source: appendix – 12)

Figure no. 4.12



The above table reveals that return in loan and advances ratio of SCBNL is decreasing trend. During the study period, SCBNL has highest ratio is 83.7% in year 2004 and lowest ratio is 59.6% in year 2008. NABIL has highest ratio 55.6% in year 2004 and lowest ratio 34.9% in year 2008.

On the basis if mean ratio of NABIL is lower than SCBNL i.e. $0.0464 < 0.06978$. But coefficient of variation of SCBNL is lower than NABIL i.e. $11.83\% < 14.96\%$. This

implies that SCBNL is significantly able to earn high return on its loan and advances in comparison to NABIL. NABIL ratio is less consistent than SCBNL.

3. Total Interest Earned to Total Working Fund ratio:

This ratio reflects the extent to which the banks are successful in mobilizing their total assets (working funds) to generate high income as interest. Higher ratio implies better performances of the bank in term of interest earning and vice-versa.

We have,

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

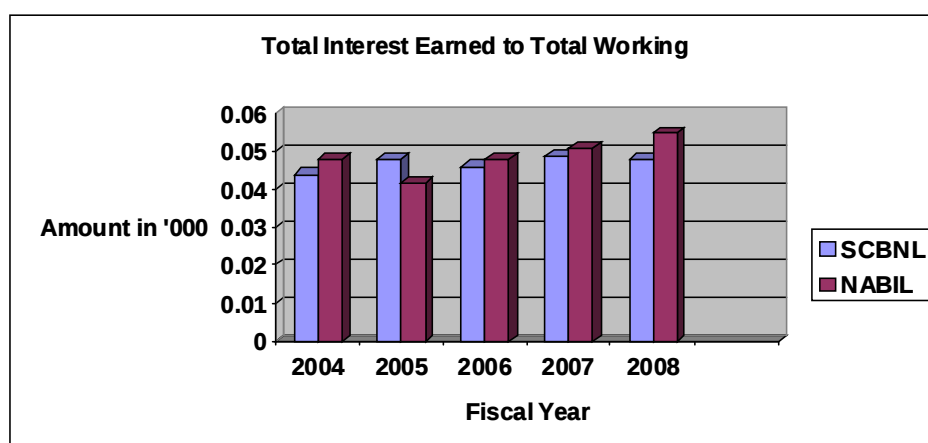
Total interest earned to total working fund ratio of SCBNL and NABIL from the fiscal year 2004 to 2008 are given below in table no:4 13.

Table no: 4.13
Total Interest Earned to Total Working

Bank	2004	2005	2006	2007	2008	Mean	S.D.	C.V.(%)
SCBNL	0.044	0.048	0.046	0.049	0.048	0.047	0.001788	3.81%
NABIL	0.048	0.042	0.048	0.051	0.055	0.244	0.00438	1.79%

(Source: appendix – 13)

Figure no. 4.13



The above table's reveals that the interest earned to total working fund ratio of SCBNL and NABIL has fluctuating trend ratio during the study period. The SCBNL has highest ratio 0.049 in year 2007 and lowest ratio 0.044 in year 2004. Similarly NABIL has highest ratio 0.055 in year 2007 lowest ratio 0.042 in the year 2004.

In average, the mean ratio of NABIL is higher than SCBNL i.e., $0.244 > 0.047$. But the C.V of NABIL is lower than SCBNL i.e., $1.79 < 3.81\%$. This implies that NABIL is more consistent than SCBNL.

4.1.4 Risk Ratio:

The possibility of risk makes banks investment challenging task. Bank has to get return on investment. The risk taken is compensated by the increase in profit. A bank has to take high risk if it expects high return on its investment. So, the bank's opting for high profit has to accept the risk and manage it efficiently. Through following ratios effort has been made to measures the level of risk.

1. Credit Risk Ratio:

It is very essential for a bank to scrutinize two projects i.e. the risk involved in it to avoid default of non-payment of loan before making investment on then. Bank makes investment by utilizing its collected find. The risk behind making investment or granting loan or providing is measured by credit risk ratio. Actually created risk ratio shows the proportion of non-performing assets in total loan and advance of a bank. But due to unavailability of related data. The ratio is calculated with the help of loan and advances and total assets.

We have,

$$\text{Credit risk ratio} = \frac{\text{Total loan \& advance}}{\text{Total assets}}$$

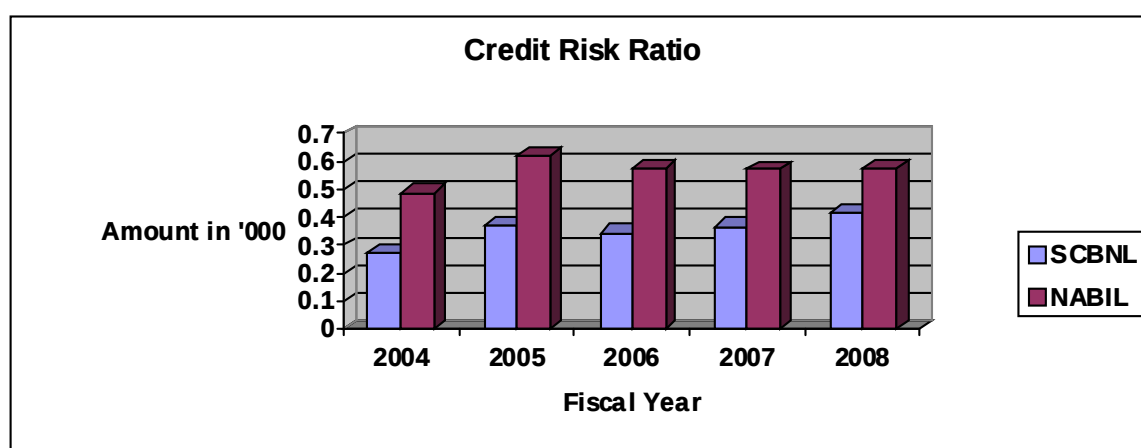
Credit risk ratio of SCBNL and NABIL from the fiscal year 2004 to 2008 is given below in table no:4. 14.

Table no: 4.14
Credit Risk Ratio (%)

Bank	2004	2005	2006	2007	2008	Mean	S.D.	C.V.(%)
SCBNL	0.2711	0.3719	0.3466	0.3673	0.4115	0.3537	0.0463253	13.09%
NABIL	0.489	0.620	0.578	0.570	0.574	0.5662	0.04436	7.83%

(Details in appendix – 14)

Figure no. 4.14



The above table shows that the credit risk ratio of both banks has maintained fluctuating trend. SCBNL has highest ratio i.e. 41.15% in year 2008 and lowest ratio is 27.1% in year 2004. Similarly NABIL has highest ratio 62% in year 2005 and lowest ratio is 48.9% in year 2004.

On the basis of mean ratio NABIL has higher than SCBNL i.e. 56.62% > 35.37%. This indicates that NABIL has higher credit in comprise to SCBNL. It means NABIL has sacred more risk on its total assets of loan and advances in comparison to SCBNL. The C.V of NABIL has lower than SCBNL i.e. 7.83% < 13.09%. This credit policy is more consistent than SCBNL. Hence it can be said that the credit risk of NABIL is higher in compare to SCBNL.

2. Liquidity Risk Ratio

The liquidity ratio of the bank defines its liquidity need for deposit. The cash and bank balance are the most liquid asset and balance is considere3d as banks liquidity sources and deposit, as the liquidity needs. The ratio of cash and bank balance to total deposit is the indicator if bank liquidity needed. If funds are kept idle in the form of the cash and bank affect the profitability i.e. profit will also low. When the bank how loan, its profitability increases and also the risk. Thus higher liquidity ratio indicates less risk and less profitable and vice-versa.

We have,

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

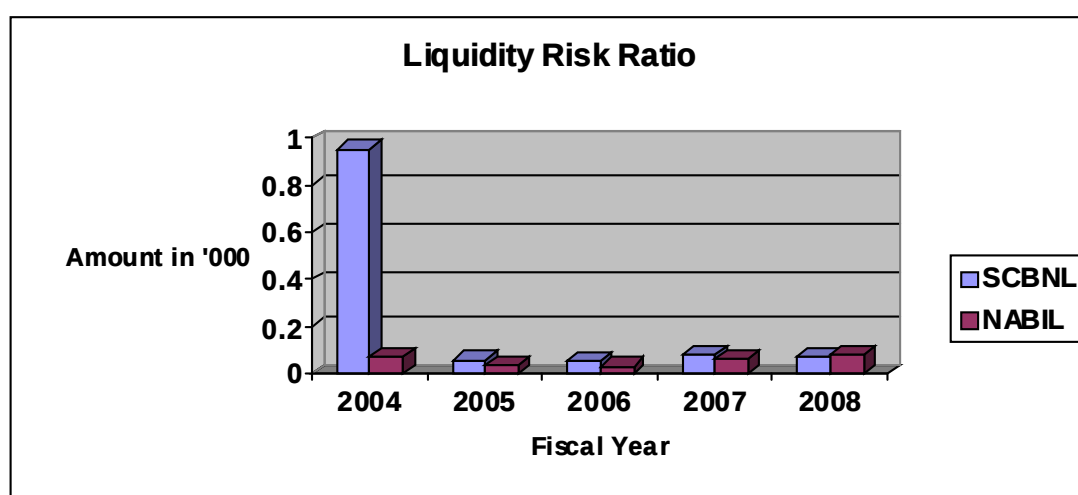
Liquidity risk ratio of SCBNL and NABIL from the fiscal year 2004 to 2008 are given below in table no:4. 15.

Table no: 4.15
Liquidity Risk Ratio (%)

Bank	2004	2005	2006	2007	2008	Mean	S.D.	C.V.(%)
SCBNL	0.95	0.057	0.055	0.082	0.0684	0.0714	0.0152	21.30%
NABIL	0.0686	0.0383	0.0325	0.0599	0.0837	0.0566	0.01899	33.2%

(Source: appendix – 15)

Figure no. 4.15



The above comparative table shows that the liquidity risk ratios of both banks are fluctuating trend. SCBNL has highest ratio 0.095 in year 2004 and minimum ratio is 0.055 in year 2006. NABIL has highest ratio is 0.0837 in year 2008 and lowest ratio is 0.055 in year 2006.

On the basis of mean ratio, SCBNL has higher ratio than NABIL i.e. $0.0714 > 0.0567$. Similarly, coefficient of variation of NABIL is higher than that of SCBNL. This implies that NABIL is less consisted in comparison to SCBNL.

4.1.5 Growth Ratios

The growth ratios are calculated to examine and analysis the expression and growth of the banking business during the study period. The higher ratios represent the better performance of the bank. Growth ratios are directly related to the fund mobilization and investment decision of the bank. This ratio represents now well the commercial banks are maintaining their economic and financial position. Under this topic four

types of growth ratios namely growth ratios of loan and advances, total investment, total deposit, and Net Profit of SCBNL and NABIL.

1. Growth Ratios of Total Loan and Advance

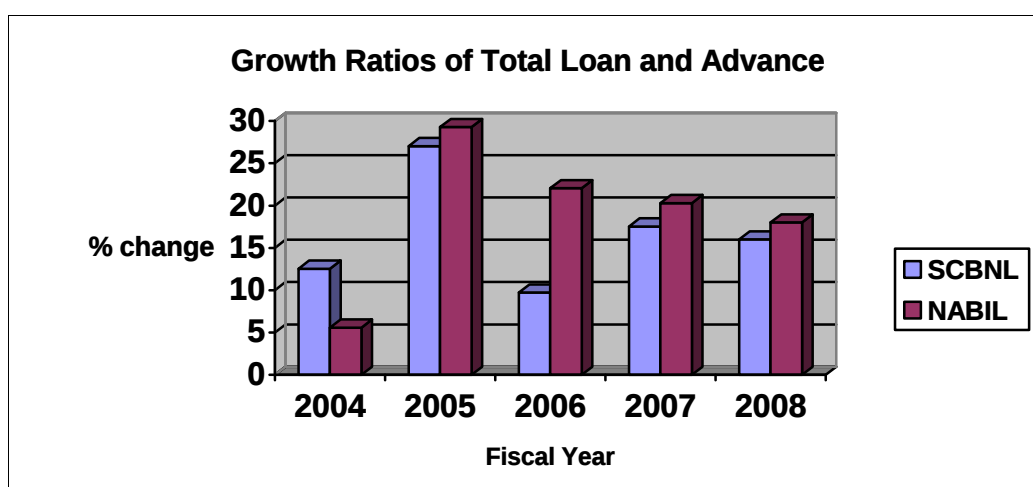
Loan and advance is the main source for the bank for generating more profit. Growth ratio of loan and advance reveal the performance of the bank. The following tables shows that the growth ratios of loan and advances.

Table no: 4.16
Total Loan and Advances Ratio

	SCBNL		NABIL	
	Loan and Advance	% Change	Loan and Advance	% Change
2004	6410	12.55	8189	5.59
2005	8143	27.03	10586	29.27
2006	8935	9.72	12922	22.06
2007	10503	17.54	15545	20.29
2008	13718	16	21365	18
Growth Ratio		20.95		27.09

(Source: appendix - 17)

Figure no. 4.16



The above tale shows that the growth ratios of total loan and advance of SCBNL is lower than NABIL i.e. 20.95%<27.09%. This means the performance of NABIL to grant loan and advance in comparison to SCBNL is higher.

2. Growth Ratio of Total Investment

Investment is done to get more profit. So the profitability of the bank is largely depends upon the investment made by the bank.

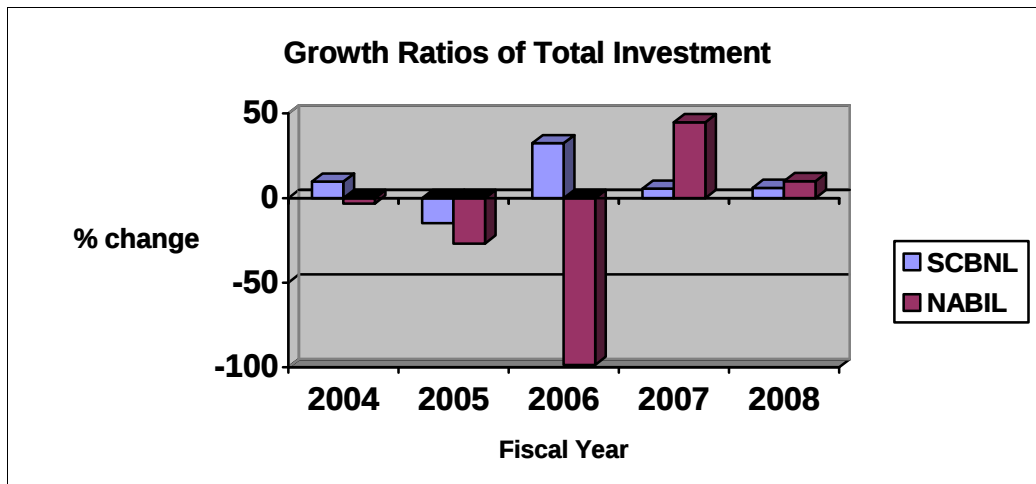
Table no: 4.17

Growth Ratio of Total Investment.

	SCBNL		NABIL	
	Total Investment	% Change	Total Investment	% Change
2004	11360	9.68	5835	-3.24
2005	9702	-14.59	4267	-26.87
2006	12847	32.41	6178	-98.55
2007	13553	5.49	8945	44.78
2008	13902	6	9939	10
Growth Ratio		5.17		14.24

(Source: Appendix - 16)

Figure no. 4.17



The above table shows that the annually % change of both banks are negative trend. But a growth ratio of total Investment of SCBNL is lower than that of NABIL. So the performance of total investment of NABIL is better than SCBNL.

3. Growth Ratios of Total Deposit

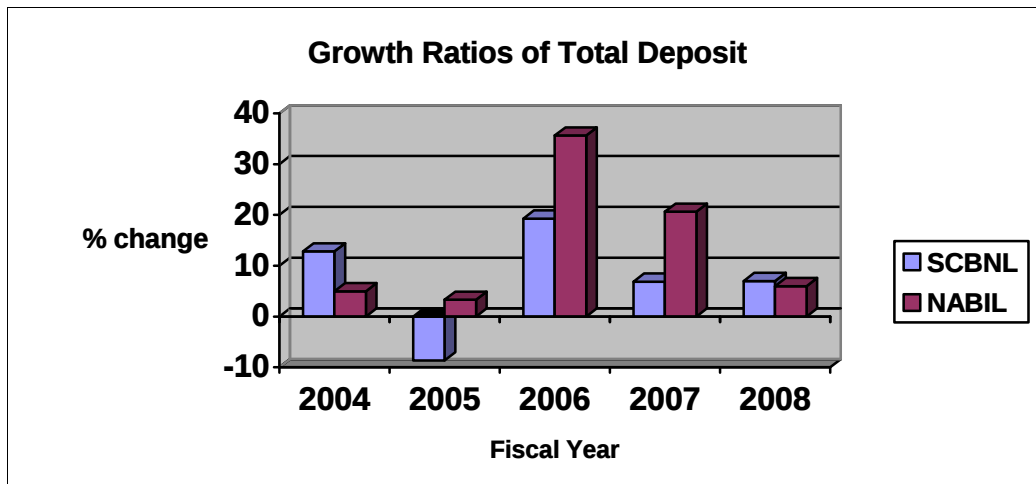
Deposit collected from customers is the main source for the bank to generate more profit by investing in different sector the banks it is very important to increase its deposit to make. sufficient amount for investment.

Table no: 4.18
Growth Ratios of Total Deposit

	SCBNL		NABIL	
	Deposit	% Change	Depsoit	% Change
2004	21161	12.82	14119	4.99
2005	19335	-8.62	14586	3.31
2006	23061	19.27	19347	35.64
2007	23647	6.87	23342	20.64
2008	29743	7	31915	6
Growth Ratio		8.9		22.61

(Source: Appendix - 18)

Figure no. 4.18



The above comparative table shows that the growth rate of the total deposit of both banks of fluctuating trend. But SCBNL is negative trend in year 2005. The growth ratio of total deposit of SCBNL is lower than that of NABIL. So the performance of total investment of NABIL is better than SCBNL.

4. Growth Ratios of Net Profit

Profit is the indication of the financial performance of any institution. It is result of investment. The bank acquires profit by providing different services to its customers or by making investments of different kinds.

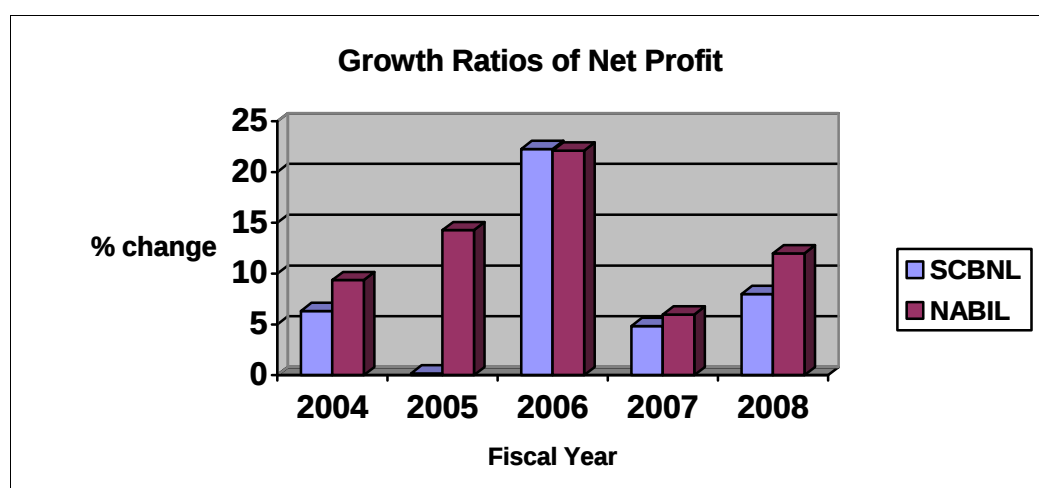
Table no: 4.19

Growth Ratios of Net profit

	SCBNL		NABIL	
	Net Profit	% Change	Net Profit	% Change
2004	535	6.32	455	9.37
2005	539	0.18	520	14.28
2006	659	22.26	635	22.11
2007	691	4.85	673	5.98
2008	818	8	746	12
Growth Ratio		11.09		13.15

(Source: Appendix - 19)

Figure no. 4.19



The above comparative tables shows that growth rate of net profit of both banks are fluctuating trend. The growth ratio of NABIL is higher than that of SCBNL i.e. 13.15%>11.09%. This implies that the overall performance of NABIL is better than SCBNL.

4.2 Statistical Analysis

Under this analysis, various types of statistical tools are used to analysis of financial performance. Specially, coefficient of correlation and trend analysis of important variable have been conducted.

4.2.1 Coefficient of Correlation:

This analysis interprets and identifies the relationship between two of more variables. In the case of highly correlated, the effects on none variable may have effect on other correlated variable. Under this topic, this study tries to find out relationship between the following variables:

i) Analysis of Relationship between Total Deposits and Net Profit

The correlation between total deposit and net profit describes the degree of relationship between two variables. How a unit increase in deposit impacts in the volume of net profit is measured by this correlation. In this analysis deposit is independent variable (X) and net profit is dependent variable (Y). The main objective

of computing correlation of coefficient is to justify whether there is any relationship between these two variables or not.

Table no: 4.20

Correlation Coefficient between Total Deposits and Net Profit of SCBNL

Banks	r	r^2	P.Er	6P.Er	Remarks
SCBNL	0.9827	0.9657	0.01035	0.0621	Significance
NABIL	0.9591	0.92	0.02414	0.14148	Significance

The above calculation shows that the correlation coefficient (r) between total deposit and total net profit of the SCBNL is 0.9827 which is higher than 6 times of probable error (0.9827 > 0.0621). It indicates that there is a high degree of positive relationship between total deposits and net profit during the study period and the relation is significant.

The correlation coefficient (r) between total deposit and net profit of the NABIL is 0.9591 which indicates that there is a high degree of positive relationship between total deposit and net profit during this study period. Since the value of 'r' is higher than 6 times of probable error which indicates that the relationship between total deposit and net profit is significant.

The value of coefficient of determination (r^2) of SCBNL and NABIL are 0.9656 and 0.92 respectively. The value of r^2 of SCBNL (0.9656) indicates that 96.56% changes in dependent variable is due to the effect of changes in independent variable while rest 3.44% is due to other unexplained variable. The value of r^2 of NABIL (0.92) indicates that 92% changes in dependent variable is due to the effect of changes in independent variable while rest 8% is due to other unexplained variable.

ii) Analysis of Relationship between Total Deposits and Total Investment

The correlation between total deposits and total investment measures the degree of relationship between these two variable. In this analysis deposit is independent variable (X) and total investment is dependent variable (Y). The main purpose of computing correlation of coefficient is to justify whether there is any relationship between these variable or not.

Table No. 4.21

Correlation Coefficient between Total Deposits and Total Investment

Banks	r	r^2	P.Er	6P.Er	Remarks
SCBNL	0.8990	0.8082	0.0579	0.3474	Significance
NABIL	0.9258	0.8572	0.0430	0.2584	Significance

The above calculation shows that the correlation coefficient (r) between total deposit and total investment of the SCBNL is 0.8990 which is higher than 6 times of probable error (0.8990 > 0.3474). That indicates that there is a high degree of positive relationship between total deposits and total investment during the study period and the relation is significant.

The correlation coefficient (r) between total deposit and total investment of the NABIL is 0.9258 which indicate that there is a high degree of positive relationship between total deposit and total investment during this study period. Since the value of 'r' is higher than 6 times of probable error which indicates that the relationship between total deposit and total investment is significant.

The value of coefficient of determination (r^2) of SCBNL and NABIL are 0.8082 and 0.8572 respectively. The value of r^2 of SCBNL (0.8082) indicates that 80.82% changes in dependent variable is due to the effect of changes in independent variable while rest 19.18% is due to other unexplained variable. The value of r^2 of NABIL (0.8572) indicates that 85.72% changes in dependent variable is due to the effect of changes in independent variable while rest 14.28% is due to other unexplained

variables

iii) Analysis of Relationship between Total deposit and Loan and advances

In this analysis deposit is independent variable (X) and loan and advances is dependent variable (Y). The main purpose of computing correlation of coefficient is to justify whether there is any relationship between these two variables or not.

Table no: 4.22

Calculation of Correlation Coefficient between Total Deposit and Loan and Advance of SCBNL

Banks	r	r^2	P.Er	6P.Er	Remarks
SCBNL	0.924	0.8537	0.0986	0.5920	Significance
NABIL	0.9893	0.9787	0.006425	0.0385	Significance

The above calculation shows that the correlation coefficient (r) between total deposit and loan and advance of the SCBNL is 0.924 which is higher than 6 times of probable error (0.924 > 0.5920). It indicates that there is a high degree of positive relationship between total deposits and loan and advances during the study period and the relation is significant.

The correlation coefficient (r) between total deposit and loan and advance of the NABIL is 0.9893 which indicates that there is a high degree of positive relationship between total deposit and loan and advance during this study period. Since the value of 'r' is higher than 6 times of probable error which indicates that the relationship between total deposit and loan and advance is significant.

The value of coefficient of determination (r^2) of SCBNL and NABIL are 0.8537 and 0.9787 respectively. The value of r^2 of SCBNL (0.8537) indicates that 85.37% changes in dependent variable is due to the effect of changes in independent variable while rest 14.63% is due to other unexplained variable. The value of r^2 of NABIL (0.9787) indicates that 97.87% changes in dependent variable is due to the effect of changes in independent variable while rest 2.13% is due to other unexplained variables.

iv) Analysis of Relationship Between Current Assets and Current Liabilities

In this analysis, current assets is independent variable (X) and current liabilities is dependent (Y). the main purpose of computing the correlation coefficient is to justify whether there is any relationship between two variables or not.

Table no: 4.23

Calculation of Correlation Coefficient Between Current Assets and Current Liabilities

Banks	r	r^2	P.Er	6P.Er	Remarks
SCBNL	0.9926	0.9852	0.0044	0.0267	Significance
NABIL	0.999	0.9980	0.00060327	0.003619	Significance

The above calculation shows that the correlation coefficient (r) between current assets and current liabilities of the SCBNL is 0.9926 which is higher than 6 times of probable error (0.9926 > 0.0267). It indicates that there is a high degree of positive relationship between current assets and current liabilities during the study period and the relation is significant.

The correlation coefficient (r) between current assets and current liabilities of the NABIL is 0.999 which indicate that there is a high degree of positive relationship between current assets and current liabilities during this study period. Since the value of 'r' is higher than 6 times of probable error which indicates that the relationship between current assets and current liabilities is significant.

The value of coefficient of determination (r^2) of SCBNL and NABIL are 0.9852 and 0.9980 respectively. The value of r^2 of SCBNL (0.9852) indicates that 98.52% changes in dependent variable is due to the effect of changes in independent variable while rest 1.48% is due to other unexplained variable. The value of r^2 of NABIL (0.9980) indicates that 99.80% changes in dependent variable is due to the effect of changes in independent variable while rest 0.2 % is due to other unexplained variables

v) Analysis of Relationship between Total Investment and Loan and Advance

In this analysis total investment is independent variable (X) and loan and advance are dependent variable (Y). The main purpose of computing correlation coefficient is to justify whether there is any relationship between these two variables or not.

Table No. 4.24
Calculation of Correlation Coefficient Between Total Investment and Loan and Advance

Banks	r	r^2	P.Er	6P.Er	Remarks
SCBNL	0.7735	0.5975	0.1214	0.7285	Significance
NABIL	0.8780	0.7709	0.0690	0.1413	Significance

The above calculation shows that the correlation coefficient (r) between total investment and loan and advance of the SCBNL is 0.7735 which is higher than 6 times of probable error (0.7735 > 0.7285). It indicates that there is a high degree of positive relationship between total investment and loan and advance during the study period and the relation is significant.

The correlation coefficient (r) between total investment and loan and advance of the NABIL is 0.8780 which indicate that there is a high degree of positive relationship between total investment and loan and advance during this study period. Since the value of 'r' is higher than 6 times of probable error which indicates that the relationship between total investment and loan and advance is significant.

The value of coefficient of determination (r^2) of SCBNL and NABIL are 0.5975 and 0.7709 respectively. The value of r^2 of SCBNL (0.5975) indicates that 59.75% changes in dependent variable is due to the effect of changes in independent variable while rest 40.25% is due to other unexplained variable. The value of r^2 of NABIL (0.7709) indicates that 77.09% changes in dependent variable is due to the effect of changes in independent variable while rest 22.91% is due to other unexplained variables.

vi) Analysis of Correlation Coefficient between Total Investment and Net Profit

In this analysis total investment is independent variable (X) and net profit is dependent variable (Y). The main purpose of computing correlation coefficient is to

justify whether there is any relationship between these two variables or not.

Table no. 4.25

Calculation of Correlation Coefficient between Total Investment and Net Profit

Banks	r	r^2	P.Er	6P.Er	Remarks
SCBNL	0.8838	0.7812	0.0659	0.3954	Significance
NABIL	0.8950	0.7930	0.0624	0.3746	Significance

The above calculation shows that the correlation coefficient (r) between total investment and net profit of the SCBNL is 0.8838 which is higher than 6 times of probable error (0.8838 > 0.3954). It indicates that there is a high degree of positive relationship between total investment and net profit during the study period and the relation is significant.

The correlation coefficient (r) between total investment profit and net of the NABIL is 0.8950 which indicates that there is a high degree of positive relationship between total investment and net profit during this study period. Since the value of 'r' is higher than 6 times of probable error which indicates that the relationship between total investment and net profit is significant.

The value of coefficient of determination (r^2) of SCBNL and NABIL are 0.8838 and 0.8950 respectively. The value of r^2 of SCBNL (0.8838) indicates that 88.38% changes in dependent variable is due to the effect of changes in independent variable while rest 11.62% is due to other unexplained variable. The value of r^2 of NABIL (0.7930) indicates that 79.30% changes in dependent variable is due to the effect of changes in independent variable while rest 20.7% is due to other unexplained variables..

4.2.2 Trend Analysis

Under this headings trend analysis of deposit collection its utilization and net profit of SCBNL and HBL are studied. To utilize deposits a commercial bank may grant loan and advances and Investment in govt. Securities and share and debentures of other companies. The objectives of this topic trend of Deposit loan and Advances, Total Investment and Net Profit are forecasted for next five years. The projections are based

on the following assumption

- 1 The forecast will be true only when the limitation of test square method is carried out.
- 2 The main assumption is that other things will remain unchanged.
- 3 The bank will run in present position.
- 4 NRB will not change its guide fines to commercial banks.

4.2.2.1 Trend Analysis of Total Deposit

The following table shows that the trend values of deposit for five fiscal years from 2004 to 2008 and forecasted trend value for five years from 2008 to 2012.

Table no: 4.26

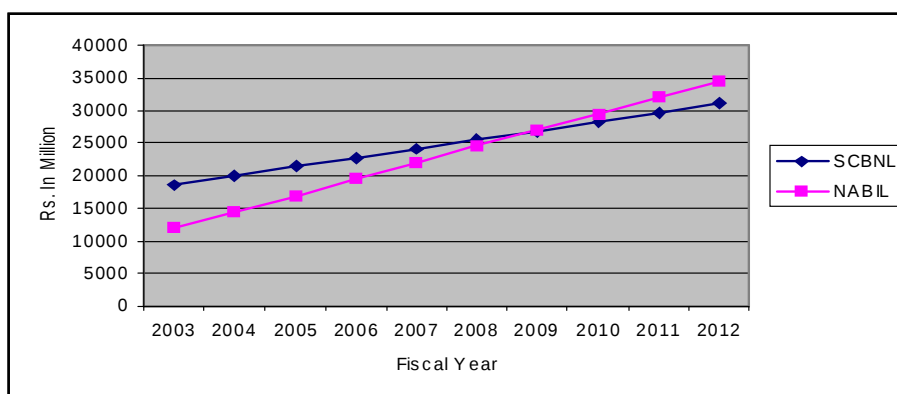
Trend Values of Total Deposit of SCBNL and NABIL.

	BANKS	
	SCBNL	NABIL
2004	19094.2	11792.2
2005	21341.8	16227
2006	23589.4	20661.8
2007	25837	25096.6
2008	28084.6	29531.4
2009	30332.2	33966.2
2010	32579.8	38401
2011	34827.4	24835.8
2012	37075	47270.6
2013	39322.6	51705.4

(Source: Appendix-2)

Figure 4.20

Trend Values of Total Deposit of SCBNL and NABIL



The above table and figures shows that the total deposits of both banks have the increasing trend. If other remain same, the total deposits of the NABIL will be Rs. 51705.4million in the year 2013. This is more than that of SCBNL. Similarly the total deposits of SCBNL will be also be Rs. 39322.6 million in year 2013.

4.2.2.2 Trend Analysis of Loan and Advances

Under this topic the trend values of loan and advances for five fiscal year from 2004 to 2008 have been calculated and forecasted for next five years from 2008 to 2012. The following table shows that trend value of loan and advances for ten years from 2004 to 2013 of SCBNL and NABIL

Table no: 4.27

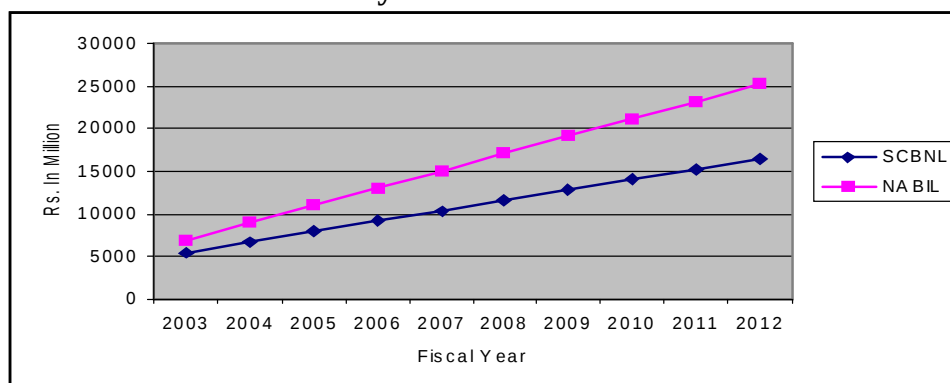
Trend Analysis of Loan and Advances

	BANKS	
	SCBNL	NABIL
2004	6146.6	7459.2
2005	7844.2	10590.1
2006	9541.8	13721.4
2007	11239.4	16852.5
2008	12937	19983.6
2009	14634.6	23114.7
2010	16332.2	26245.8
2011	18029.8	29376.9
2012	19727.4	32508
2013	21425	35639.1

(Source: Appendix- 21)

Figure 4.21

Trend Analysis of Loan and Advances



The above table and figure reveals that the total loan and advances of both banks have the increasing trend. If other things remain unchanged the total loan and advances of NABIL will be Rs. 35639.1 million in the year 2013. But the loan and advances of SCBNL will be only Rs. 21425 million in years 2013, which is lower than that of NABIL. (i.e. $35639.1 < 21425$).

4.2.2.3 Trend Analysis of Total Investments.

The following table shows the trend value of investments years 5 from 2004 to 2008 and forecasted trend value for next five years from 2009 to 2013 of SCBNL and NABIL.

Table no: 4.28

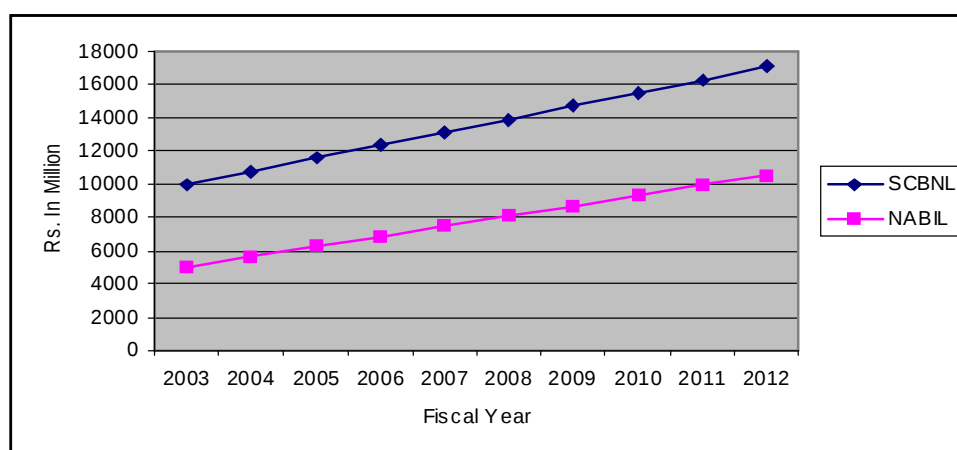
Trend Values of Total Investment of SCBNL and NABIL

	BANKS	
	SCBNL	NABIL
2004	10485.8	4455.6
2005	11379.2	5744.2
2006	12272.6	7032.28
2007	13166	8321.4
2008	14059.4	9610
2009	14952.8	10898.6
2010	15846.2	12187.2
2011	16739.6	13475.8
2012	17633	14764.4
2013	18526.4	16053

(Source: Appendix - 22)

Figure 4.22

Trend Values of Total Investment of SCBNL and NABIL



The above table and figure shows that the total investments of both banks have the increasing trend. If other things remain the same, the total investments of NABIL will be Rs. 16053 million in year 2013. Similarly, the total investment of SCBNL will be Rs. 18526.4 in year 2013. Which is higher than that of NABIL. From the above table

analysis, it is found that the total investment of NABIL's less than SCBNL (i.e. 16053<18526.4)

4.2.2.4 Trend Analysis of Net Profit

The following table shows that the trend value of net profit for five years from 2004 to 2008 and forecasted trend value for next five years from 2009 to 2013 if SCBNL and NABIL.

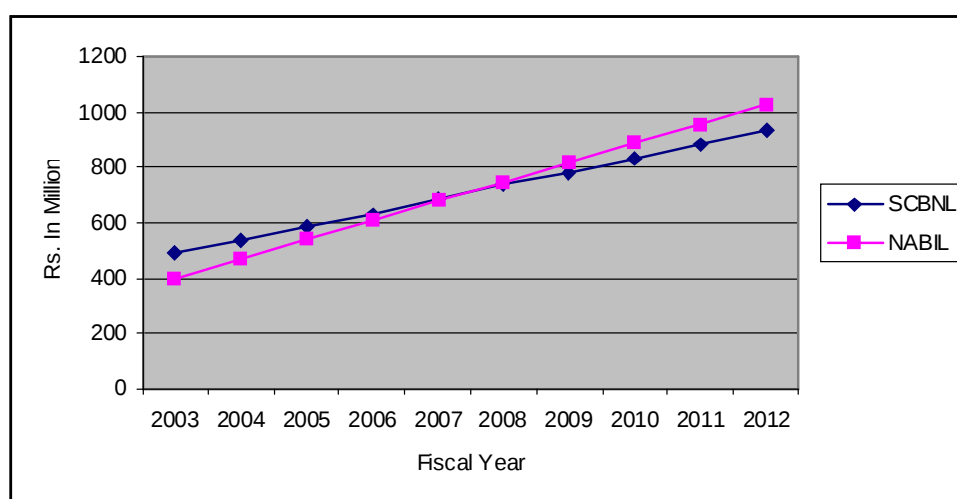
Table no: 4.29
Trend Values of Net Profit of SCBNL and NABIL.

	BANKS	
	SCBNL	NABIL
2004	505.8	458.8
2005	577.3	532.3
2006	648.8	605.8
2007	720.3	679.3
2008	791.8	752.8
2009	863.3	826.3
2010	934.8	899.8
2011	1006.3	973.3
2012	1077.8	1046.8
2013	1149.3	1120.3

(Source: Appendix - 23)

Figure 4.23

Trend Values of Net Profit of SCBNL and NABIL



The above table and figure shows that the net profit of SCBNL and NABIL have increasing trend. If other things remain same, the net profit of SCBNL will be 1149.3

million in the year 2013. Similarly the net profit NABIL will be Rs. 1120.3 in year 2013. Which is lower than SCBNL. From the above table trend analysis, it is found that position of SCBNL in regard to utilization of the fund to earn profit is better in compared to NABIL.

4.3 Analysis of Primary Data

This section provides interpretation and analysis of primary data. On the study only secondary data analysis has not been sufficient to cover objectives.

Sectors Considered More Appropriate for Making Investment

With respect to the sector considered more appropriate for making investment, majority of the respondents (58%) replied that the manufacturing sector is more appropriate, while remaining 25% of the respondents responded service sector is appropriate for making investment and the rest 17 % respondents responded that banking sector is more appropriate for making investment. This can be shown in the table as given below:

Table No. 4.30
Sector Appropriate for Making Investment

S.N.	Research Variables	No. of Respondents	% of Respondents
1.	Manufacturing Sector	7	58
2.	Service Sector	3	25
3.	Financial Sector	-	-
4.	Banking Sector	2	17
5.	Insurance Sector	-	-
		12	100

Source: Field Survey, Questionnaire No. 1

Reason of Investing Major Portion of Deposit in Loan and Advance

In context to the reason of major portion of deposit investing in loan and advance ,majority of the respondents (83%) replied that the main reason for investing such fund is profitability and the rest 17% respondents responded that quick return is the main reason for making more deposits in loan and advances .This can be shown in table as given below

Table No. 4.31

Reason of Investing Major Portion of Deposit Loan and Advance

S.N.	Research Variables	No. of Respondents	% of Respondents
1.	Quick Return	2	17
2.	Security	-	-
3.	Profitability	10	83
4.	Other	-	-
		12	100

Source: Field Survey, Questionnaire No. 2

Major Problem while Making Investment

With respect to the major problem facing by the commercial banks while making investment decision majority of the respondents (50%) opined that the major problem is limited investment opportunities and the rest 25 % respondents responded that the major problem is political instability and 25% respondents responded that the major problem facing by commercial banks while making investment is political instability . This can be shown in table as given below:

Table No. 4.32

Major Problems Commercial Banks are facing

S.N.	Research Variables	No. of Respondents	% of Respondents
1.	Ltd. Inv. Opportunities	6	50
2.	Mut. Competition	3	25
3.	Interest Rate	-	-
4.	Political Instability	3	25
		12	100

Source: Field Survey, Questionnaire No. 3

Reason Behind Investment in Government Securities

With respect to the reason behind investment in government securities majority of the respondents(83%) replied that the main reason for investing in government securities is security and the rest 17 % respondents responded that replied for other reason.This can be shown in table as given below:

Table No. 4.33

Reason Behind Investing in Government Securities

S.N.	Research Variables	No. of Respondents	% of Respondents
1	Profitability	-	-
2.	Security	10	83
3.	Compulsion	-	-
4.	Other	2	17
		12	100

Source: Field Survey, Questionnaire No. 5

Banks Situated only in Urban Area

With respect to the reason for banks are situated only in urban areas ,majority of the respondents(50%) replied that the main reason is more opportunities, while 25 % of respondents responed for infrastructure and the remaining 25 % respondents responed that security is the main reason for banks situated in urban areas., This can

be shown in table as given below:.

Table No. 4.34
Banks Situated only in Urban Areas

S. N.	Research Variables	No. of Respondents	% of Respondents
1.	More Oporto	6	50
2.	Infrastructure	3	25
3.	Security	3	25
4.	Other	-	-
		12	100

Source: Field Survey, Questionnaire No. 6

Policies and Guidelines of Nepal Rastra Bank for Smooth Operation of Bank

With respect to the policies and guidelines of Nepal Rastra Bank, the bankers were asked whether the policies and guidelines of Nepal Rastra Bank are enough for the proper and smooth operation of banks. 100 % of the respondents responded that the policies and guidelines of Nepal Rastra Bank is enough for smooth and proper operation of banks. This can be shown in table as given below:.

Table No. 4.35
Policies and Guidelines of Nepal Rastra Bank for Smooth Operation of Bank

S.N.	Research Variables	No. of Respondents	% of Respondents
1.	Yes	12	100
2.	No	-	-
3.	Don't know	-	-
		12	100

Source: Field Survey, Questionnaire no. 7

Prevailing Interest Rate on Deposit/Lending

With respect to the prevailing interest rate on deposit/lending ,majority of the respondents (67%) replied that the prevailing interest rate on deposit /lending is satisfactory and replied yes while 25% of the respondents replied no and rest 8 % respondents replied doesn't know. This can be shown in table as given below:

Table No. 4.36

Prevailing Interest Rate on Deposit/Lending

S.N.	Research Variables	No. of Respondents	% of Respondents
1.	Yes	8	67
2.	No	3	25
3.	Don't know	1	8
		12	100

Source: Field Survey, Questionnaire No. 8

Factors Considered While Taking Investment Decision

With respect to the factors considered while taking investment decision. 8 marks were given to profitability, 6 marks were given to security, 3 marks were given to political climate, 2 marks were given to level of income and 1 mark was given to government policy. Thus according to the respondents the main factor considered while taking investment decision is profitability and security.

Table No. 4.37

Factors Considered While Taking Investment Decision

S.N.	Research Variables	Mark Obtained	Rank
1.	Profitability	8	1st
2.	Security	6	2nd
3.	Level of Income	2	4th
4.	Govt. Policy	1	5th

Source: Survey, Questionnaire No. 9

4.4 Major Finding of the Study

Having completed the basic analysis required for this study, the final and the most

important task of the researcher is to enlist that findings. This will give meaning to the desired result. A comprehensive summary of the findings of this study is presented below.

4.4.1 Findings From Secondary Data Analysis

The major findings of the study are derived on the analysis of financial and statistical tools are as follows :

- 1 The mean CA ratio of NABIL is higher than SCBNL. It means NABIL has higher liquidity in compare to SCBNLL. The CA of NABIL is high consistent than that of SCBNL.
- 2 The mean ratio of cash and bank balance to total deposit ratio of SCBNL is higher than NABIL. But ratio of SCBNL is more consistent than that of NABIL due to high coefficient of variation.
- 3 The mean ratio of cash and bank balance to CA. ratio of SCBNL is higher than that of NABIL and also SCBNL is more consistent than NABIL due to higher C.V.
- 4 The mean ratio of investment on government securities to current asset of NABIL is lower than that of SCBNL. The variability ratio of SCBNL is less consistent than NABIL.
- 5 The mean ratio of loan and advance to CA ratio of NABIL is higher than that of SCBNL. Coefficient of variation indicates that NABIL is more consistent than SCBNL.
6. The mean ratio of loan and advance to total deposit of NABIL is higher than that of SCBNL. The coefficient of variation of NABIL has maintained lower than that of SCBNL. Which indicated that NABIL is more consistent.
- 7 The mean ratio of total investment to total deposit of SCBNL is higher than that of NABIL. The variability of the total of SCBNL is more consistent than NABIL
- 8 The mean ratio of loan and advance to total working fund of NABIL is higher than that of SCBNL. Similarly, NABIL is more consistent than SCBNL
- 9 The mean ratio of investment on government securities to total working fund of NABIL is lower than that of SCBNL. The variability of the investment on government securities ratio of NABIL is less consistent.

10. The mean ratio of investment on share and debenture ratio to total working fund of NABIL is higher than that of SCBNL. The variability of the total of NABIL is more consisted than SCBNL.
11. During the study period, the mean ratio of credit risk of NABIL is higher than that of SCBNL. It means NABIL has beared more risk in comparison to SCBNL. The credit risk ratio of NABIL is more consistent than that of SCBNL.
12. The mean liquidity risk ratio of SCBNL is higher than that of NABIL. The liquidity risk ratio of SCBNL is more consistent than that of NABIL.
13. Growth ratio of loan and advance of NABIL is higher than that of SCBNL (i.e. 27.09% > 20.95%). This implies that NABIL has succeeded on the investment than SCBNL.
14. NABIL's growth ratio of total deposit is greater than SCBNL (i.e. 22.69% > 8.9%). It indicates that the performance of NABIL to collecting rate of deposit is better than SCBNL.
15. The growth ratio of total investment of NABIL is greater than SCBNL (i.e. 14.24% > 5.17%). This implies that NABIL has succeeded on the investment than SCBNL.
16. The growth ratio of net profit of NABIL is higher than that of SCBNL. (i.e. 13.14% > 11.09%)
17. The correlation coefficient (r) between total deposit and total net profit of SCBNL is 0.9827 and 6 times probable error is 0.0621 since $r > P.E (r)$ and (r) is positive and near by t. So it is found that there is highly positive and significantly correlative between two variables. Similarly correlation (R) between total deposit and net profit of NABIL is 0.95915 and probable error multiplied by 6 is 0.02414 since $r > 6P.E$ and r is positive. So it can be said that there is positive and significant relationship between two variables.
18. The correlation coefficient (r) between total deposit and total investment of SCBNL is 0.8990 and that correlation of NABIL is 0.9258. The probable error times 6 is 0.3474 and that of NABIL has 0.2584. Since correlation (r) is greater than that 6P.E of SCBNL and NABIL. So it is found that there is significant correlation between two variables of SCBNL and NABIL.

19. The correlation coefficient (r) between deposit and loan and advances of SCBNL is 0.924 and probable error times 6 is 0.5920 since $r > 6P.E.$ Similarly correlation (r) between total deposits and loan and advance of NABIL is 0.9893 and probable error times 6 is 0.0385: Since $r > 6P.E.$ and r is positive so it can be conclude that there is highly positive and significance correlation between two variables of NABIL bank and .SCBNL. So it is found thatr there is significance relationship between two variables.
20. The correlation coefficient (r) between current assets and current liab. of SCBNL is 0.9926 and 6 times probable error is 0.0267. Since $r > 6P.E.$ and similarly correlation (r) between C.A and CL of NABIL is 0.999 and 6 times probable error is 0.003619. So it can be conclude there is highly positive and significance correlation between two variables of SCBNL but NABIL has in significance relationship between two variables.
21. The correlation coefficient (r) between total investment and loan and advance of SCBNL is 0.7735 and 6 times probable error is 0.7285. Since $r > 6P.E.$ and similarly correlation (r) between total investment and loan and advance of NABIL is 0.8780 and 6 times probable error is 0.4143. So it can be conclude there is highly positive and significance correlation between two variables of SCBNL but NABIL has in significance relationship between two variables.
22. The correlation coefficient (r) between total investment and net profit of SCBNL is 0.8838 and 6 times probable error is 0.3954. Since $r > 6P.E.$ and similarly correlation (r) between total investment and net profit of NABIL is 0.8905 and 6 times probable error is 0.3746. So it can be conclude there is highly positive and significance correlation between two variables of SCBNL but NABIL has in significance relationship between two variables.
23. The trend analysis of total deposit indicated that the total deposit of both SCBNL and NABIL are in increasing trend. From this analysis it is forecasted that the total deposit of SCBNL and NABIL will be Rs. 39322.6 million and Rs. 51705.4 million in year 2013 respectively.
24. The trend value of loan and advance of SCBNL and NABIL has found in increasing trend. If other things remaining the same, the loan and advances of

SCBNL and NABIL will be 21425million and Rs.35369.1 million respectively.

25. The trend analysis of total investment shows that the total investment of both banks has increasing trend. The total investment of SCBNL and NABIL by the year 2013 is projected to be Rs. 18526.4 million and Rs. 16053 million respectively
26. The trend analysis of the net profit of both banks is in increasing trend of other thing remaining the same, the net profit of SCBNL and NABIL will be Rs. 1149.3 and Rs. 1120.3 million respectively in year 2013.

4.4.2 Findings From Primary Data Analysis

1. The majority of respondents (58%) responded that manufacturing sector is more appropriate for making investment while service sector (25%) and making investment while service sector (25%) and banking sector (17%) are in second and third choice respectively.
2. The majority of the respondents (17%) replied that the main reason for investing major portion of deposit in loan and advance is profitability and the rest of the 17 % respondents responded that quick return is the main reason for making more deposit in loan and advance.
3. The major problem facing by CBs, while making investment decision majority of the respondents (50%) opined that major problem is limited investment opportunities while 25 % of respondents responded for market competition and rest 25% respondent opined for political instability.
4. The main reason behind investment in government securities, majority of the respondents (83%) replied that the main reason is security while rest 17% respondents responded for other reason.
5. The reason for that banks situated only in urban areas, the majority of the respondents (50%) replied that the main reason is more opportunities while 25 % of respondents opined for infrastructure and rest 25% of respondents opined for security.
6. The policies and guidelines of Nepal Rastra Bank for smooth operation of bank, majority of the respondents opined that the policies and guidelines of

NRB is enough for smooth operation of CBs.

7. The prevailing interest rate on deposit/lending is satisfactory, the majority of the respondents (67%) replied yes while rest 25 % and 8% respondents replied no and don't know respectively.
8. The main factors considered while taking investment decision, the profitability is considered as main factor while security, political climate, level of income and government policy is considered as other factors respectively.

CHAPTER-V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter includes summary, conclusion and recommendations of the basic of main findings. The final and most important task of the researchers is to enlist fact findings of the study and give suggestion for further improvement. 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 are used and under statistical analysis some relevant statistical tools are used.

5.1. Summary

The economic development of a country indicates the overall development of the country. Therefore every country has given emphasis in enlistment of its economy. Nowadays, the financial institutions are viewed as catalyst in the process of economic growth. Commercial banks are the main financial institution, which collect scattered resources as deposit from the general public and mobilize that fund among those who are associated with the economic, commercial and social activities of a country as loan and advances and investment. A sound investment policy of a commercial bank plays a vital role for mobilization of fund and development of country. Investment grandly depends on the saving behaviours of that country. The amount of saving of a typical household in Nepal is small because of the people have limited opportunities for investment. They prefer to spend savings on commodities rather than on financial assets. This restricts the process of financial intermediation, which might otherwise bring benefit such as reduction of investment risk and increase in liquidity. Investment depends on development of the capital market also. It provides and allocates funds to firms with profitable investment opportunities and offers and avenue of liquidity for individuals to invest current income or borrow against future income.

Investments in its broader sense, means the sacrifice of current income and present value for future income. The different attributes are generally involved. The sacrifice

takes place in the present attributes are generally involved. The sacrifice takes place in the present and its magnitudes as generally uncertain. An investment activity of the country also depends on the development of financial institution, as financial institution is a key for investment. Industrial development is very important for economic development of any country. And there must be investment and productive activities for industrial development.

Investment analysis is done to know and evaluate the investment policy which currently adapted by SCBNL and NABIL. Investment analysis help to identify the bank's current strengths and weakness and to suggest taking action the might enable the bank to take the advantage of its strengths and correct its weakness.

The main objective of the study is to evaluate investment policy of SCBNL and NABIL and to suggest measure to improve the investment policy of the bank. This study is mainly based on secondary data from the year 2004 to 2008 financial statements of related banks, official records, journals and bulletins, various published reports, relevant unpublished master's thesis and different related website.

In this study, the financial tools ratio analysis viz. Liquidity ratio, assets management ratio, profitability ratio, risk ratio, growth ratio and statistical tools lie mean, standards deviation, co-efficient of variation trend analysis, and correlation co-efficient have been used for the analysis and interpretation of the data. The various ratios show the investment position of the SCBNL and NABIL, over the 5 years period. Correlation analysis helps to establish the relationship between two variables, which can be useful to know how one variable affects another.

Similarly, trend analysis is used to find out the trend of some important tool like total deposit, loan and advances, net profit and total investment on the basis of past data of the bank. This can be used to predict the value of these elements in future.

5.2 Conclusion

The current ratio of NABIL is comparatively better than SCBNL. It has maintained

highest C.A ratio but it has lower mean ratio of cash and bank balance to total deposit and cash and bank balance to C.A ratio. NABIL has minimum deposit collection .It has maintained higher investment on loan and advances and higher investment policy on government security.

From the analysis of assets management ratio (activity ratio) it can be concluded that NABIL. has maintained and managed its assets towards different income generating activities .The ratio of loan and advances to total deposit of NABIL is higher but the mean ratio of total investment to total deposit and investment on government securities to total working fund is higher than SCBNL. Similarly investment on share and debenture of NABIL is higher than SCBNL. NABIL is more consistent and homogenous than SCBNL

In profitability ratio the mean return on total working fund and total interest earned to total working fund of NABIL is higher than that of SCBNL. The mean ratio of return on loan and advance of SCBNL is higher than NABIL. So the profit earning capacity by utilizing available resources , NABIL. is high in comparison to SCBNL.

The risk ratio implies that during the study period the credit risk ratio of NABIL is higher than that of SCBNL. So, it can be concluded NABIL has beared more risk in comparison to SCBNL.

The analysis of growth ratios in all ratios. SCBNL has not successfully collected and utilized its fund collected from the customer due to see growth rate of total deposit, loan and advances, total investment, and net profit.

From the correlation analysis it shows that the correlation coefficient (r) between total deposit and net profit of SCBNL is 0.9827 and is greater than 6 times of probable error, which reveals that there is very strong positive and significant relationship between total deposit and net profit of SCBNL similarly, correlation coefficient (r) between total deposit and net profit of NABIL is 0.9591 and is greater than 6 times of

probable error, which indicates that there is lower positive than that of SCBNL and significant relationship between two variables. The correlation coefficient (r) between total deposit and total investment of SCBNL and NABIL is 0.8990 and 0.9258 respectively and is greater than 6 times of probable error which indicates that there is significant relationship between two variables of both bank. Similarly, correlation between total deposit and loan and advance of both banks are higher than 6 times of probable error. Hence, there is highly positive and significance relationship between two variables. The correlation between CA and CL of both banks are greater than 6 times probable error. Similarly, the correlation between total investment and loan and advance of both banks are greater than 6 times probable error. The correlation between total investment and net profit are also greater than 6 times probable error. So, it can be concluded that there is positive and significant relationship between two variables of both banks. Since, it can be said that the increase and decrease of one variable affects the volume of one another variables.

From the study of trend value, it can be said that the trend value of total deposit, loan and advances, total investment and net profit are in increasing trend. The deposit collection position of SCBNL is higher than the NABIL. So, it can be concluded that, if other things remain same, the SCBNL and NABIL will increase their deposits, investments, loan and advances and net profit in future.

5.3. Recommendations

Recommendations are the final output of the whole study. It helps to convey positive information and proper way of improvement to concern banks i.e. SCBNL and NABIL and other interest researchers in upcoming days. On the basic of analysis and conclusion with the findings of the study, following suggestions and recommendations can be advanced to overcome weakness, inefficiency and to improve present fund mobilization and credit (investment) policy of SCBNL and NABIL

- 1 The liquidity ratio of both banks is less than normal standards ratio of 2:1. However the ratio 1:2 or above would be considered acceptable but current ratio of SCBNL is less than 1:1. So, SCBNL is recommended to maintain their liquidity

position in normal standards.

- 2 Cash and bank balance to total deposit ratio of both bank is less than the NRB's minimum requirement (i.e. 12% of total deposit liability). So, the both banks are suggested that they should maintain the minimum requirement of cash and bank balance.
- 3 The commercial bank's main source of fund is collection deposit from public who don't need that fund recently. Deposit collection has played a significant role in term of daily activities in the commercial bank. It has found that the growth rate of deposit collection of NABIL is lower than that of SCBNL. So, it is recommended to NABIL to collect more amounts as deposit through largely variety of deposit schemes and facilities.
- 4 The SCBNL has invested certain amount of its deposit on loan and advance. Loan and advance is main source to generate more profit of the bank. Due to the less investment on loan and advances, the interest income will be less which is major source of income. This can have an adverse effect on the overall profitability of the bank. So the SCBNL suggested that the bank should mobilize its deposits on loan and advances in generating income purpose.
- 5 As a bank of private sector, commercial banks cannot keep their eyes closed from the profit motive. They should be careful to increasing profit in a real sense to maintain the confidence of shareholder, depositors and its all customers SCBNL profitability position in lower condition than NABIL. So SCBNL recommended to utilize risky assets and shareholder's fund to gain highest profit margin. Similarly, it should reduce its expanses and try to make more profit by proper utilization of deposited money.
- 6 In the light of growing competition in the banking sector, the business of the bank should be customer oriented. Marketing is a effective tool to attract customer so it should be strong and activate. Without effective marketing strategy and organization could be along in the competitive market. Different marketing techniques like advertisement through audio-visual, published website, documentary, etc. are followed. Likewise, draw attentions of customers through new technology, like internet banking service, increase investment through their

wide international banking network should be introduced. It is recommended that SCBNL and NABIL should develop innovative approach to banks marketing for its well beings and sustainability in the market upgrade the banking facilities so as to cope with the charging environment of the banking business.

- 7 Economic development of the country depends upon the growth of commercial banks. If the service of commercial banks expands all over the country it will collect idle money from different areas and can be utilized for income generation purpose. So, SCBNL and NABIL should expand its hands all over rural and urban areas of the country, not only in capital. NRB and HMG/N have also encouraged the joint venture banks to expand banking services in rural areas and communities without making unfavorable impact in their profit. Therefore SCBNL and NABIL are recommended to expand its branches and provide banking service and facilities to the rural areas and communities to accelerate and the rural areas economic development through opening new branches in particular areas after making feasibility study and study well about saving and business potentiality of those areas, it is very helpful to bank in tapping the resources of different areas.

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I. Current Ratio of SCBNL (Rs. in Million)

Annex - I

Year	Current assets	Current liab	Ratio (in times)
2004	22012	22146	0.99
2005	21216	20199	1.04
2006	25027	24013	1.04
2007	27838	26480	1.05
2008	31869	30843	1.03
Total			5.16

$$\bar{X} = \frac{\sum X}{N} = \frac{4.92}{5} = 0.98$$

$$S.D = \sqrt{\frac{\sum (x - \bar{X})^2}{N}} = \sqrt{\frac{0.0194}{5}} = 0.06$$

$$C.V. = \frac{S}{\bar{X}} \times 100 = \frac{0.06}{0.98} \times 100 = 6.12\%$$

II. Cash and Bank Balance to Total Deposit Ratio

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

Year	Cash and B/L	Total deposit	Ratio
2004	2023	21161	0.0956
2005	1111	19335	0.0575
2006	1275	23061	0.0553
2007	2021	24647	0.0819
2008	2050	29743	0.0689
Total			0.3592

$$\text{Mean} = \frac{1.0973}{5} = 0.219$$

$$S.D = \sqrt{\frac{0.4338}{5}} = 0.29$$

$$C.V. = \frac{S}{\bar{X}} \times 100 = \frac{0.29}{0.22} \times 100 = 131.8\%$$

III. Cash and B/L to Current Assets Ratio

Year	Cash and B/L (x)	Current assets (y)	Ratio
2004	2023	22012	0.09190
2005	1111	21216	0.05237
2006	1275	25027	0.05094
2007	2021	27838	0.0726
2008	2050	31869	0.06432
Total	8480	127962	0.33206

$$C.V. = \frac{s}{\bar{X}} \times 100 = \frac{0.29}{0.069} \times 100 = 420\%$$

IV. Investment on Government Security to Current Assets Ratio:

$$\text{Investment on Government Security to CA Ratio} = \frac{\text{Investment on Government Security}}{\text{C.A.}}$$

Year	Inv. on Government	C.A.	Ratio
2004	7948	22010	0.3611
2005	7203	25033	0.2877
2006	7210	21214	0.3399
2007	5995	27835	0.2154
2008	7157	31869	0.2246
Total			1.4287

$$\bar{X} = \frac{\sum X}{N} = 0.506$$

$$S.D = \sqrt{\frac{\sum (x - \bar{X})^2}{N}} = \sqrt{\frac{0.02548}{5}} = 0.071$$

$$C.V. = \frac{s}{\bar{X}} \times 100 = \frac{0.071}{0.51} \times 100 = 13.92\%$$

V. Loan and Advances to Current Assets Loan and Advance/ C.A Ratio:

Year	Loan and Advance	C.A	Ratio	$(x-\bar{X})^2$
2004	6410	22012	0.291	- 0.046
2005	8143	21216	0.384	- 0.051
2006	8935	25027	0.357	- 0.017
2007	10503	27835	0.377	0.079
2008	13718	31869	0.430	0.035
Total			1.839	

$$\text{Mean } (\bar{X}) = \frac{\sum X}{N} = \frac{1.71}{5} = 0.352$$

$$\text{S.D} = \sqrt{\frac{(x-\bar{X})^2}{N}} = \sqrt{\frac{0.01247}{5}} = 0.049$$

$$\text{C.V.} = \frac{S}{\bar{X}} \times 100 = \frac{0.049}{0.34} \times 100 = 14.41\%$$

VI. Assets Management Ratio (Activity Ratio)

$$\text{Loan and advance to total deposit ratio} = \frac{\text{Loan and advance}}{\text{Total Deposit}}$$

Year	Loan and Advance	Total Deposit	Ratio
2004	6410	21161	0.3029
2005	8143	19335	0.4212
2006	8935	23061	0.3875
2007	10503	24647	0.4261
2008	13718	29743	0.4612
Total			1.9989

$$\text{Mean} = \frac{1.84}{5} = 0.37$$

$$\text{S.D} = \sqrt{\frac{(x-\bar{X})^2}{N}} = \sqrt{\frac{0.01247}{5}} = 0.055$$

$$\text{C.V.} = \frac{S}{\bar{X}} \times 100 = \frac{0.055}{0.37} \times 100 = 14.86\%$$

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

Year	Total Investment	Total Deposit	Ratio
2004	11360	21161	0.5368
2005	9702	19335	0.5018
2006	12847	23061	0.5571
2007	13553	24647	0.5499
2008	13902	29743	0.4674
Total			2.163
Mean			
S.D.			
C.V (%)			

$$\text{Mean} = \frac{2.695}{5} = 0.539$$

$$\text{S.D} = \sqrt{\frac{(\sum x - \bar{X})^2}{N}} = \sqrt{\frac{1.054}{5}} = 0.459$$

$$\text{C.V.} = \frac{S}{\bar{X}} \times 100 = \frac{0.46}{0.54} \times 100 = 85\%$$

$$\text{Loan and advances to total working fund raio on SCBNL} = \frac{\text{Loan and advances}}{\text{Total working fund}}$$

Where,

Total working fund = Total assets.

Year	Loan and advances	Total Working	Ratio
2004	6410	23642	0.2711
2005	8143	21893	0.3719
2006	8935	25776	0.3466
2007	10503	28596	0.3673
2008	13718	33335	0.4115
Total			1.7684

$$\text{Mean} = \frac{1.626}{5} = 0.3252$$

$$\text{S.D} = \sigma = \sqrt{\frac{0.010152}{5}} = 0.045$$

$$C.V. = \frac{S}{\bar{X}} \times 100 = \frac{0.045}{0.33} \times 100 = 13.64\%$$

Investment on government Securities to total working fund SCBNL

$$= \frac{\text{Investment in government securities}}{\text{Total working fund}}$$

Year	Investment on government securities	Total Working Fund	Ratio
2004	7948	23642	0.3362
2005	7203	21893	0.3390
2006	7210	25776	0.2797
2007	5995	28596	0.3096
2008	7157	33335	0.2147
Total			1.4692

$$\text{Mean} = \frac{1.4745}{5} = 0.2949$$

$$S.D = \sqrt{\frac{(\sum (x - \bar{X})^2)}{N}} = \sqrt{\frac{0.0110}{5}} = 0.047$$

$$C.V. = \frac{S}{\bar{X}} \times 100 = \frac{0.047}{0.295} \times 100 = 15.9\%$$

Investment on share and Debenture to total working fund ratio =

$$\frac{\text{Investment Share and debenture}}{\text{Total Working Fund}}$$

Year	Investment Share and debenture	Total Working Fund	Ratio
2004	11	23642	0.00046
2005	13	21893	0.000593
2006	15	25776	0.000581
2007	44	28596	0.00153
2008	114	33335	0.003419
Total			0.006574

$$\text{Mean} = \frac{0.00368}{5} = 0.000737$$

$$\text{S.D} = 0.00049$$

$$\text{C.V.} = \frac{S}{X} \times 100 = \frac{0.00049}{0.000737} \times 100 = 0.66\%$$

4.1.3 Profitability Ratio SCBNL

$$\text{1. Return on total working fund ratio} = \frac{\text{Net profit}}{\text{Total working fund}}$$

Year	Net Profit	Total Working fund	Ratio
2003	537	23642	0.0227
2004	539	21893	0.0246
2005	658	25776	0.0255
2006	692	28596	0.0242
2007	818	33335	0.0245
Total			

$$\text{Mean} = \frac{12.13}{5} = 2.43$$

$$\text{S.D} = 0.000932$$

$$\text{C.V.} = \frac{S}{X} \times 100 = \frac{0.000932}{0.24} \times 100 = 3.88\%$$

$$\text{Return on loan and advances Ratio: SCBNL} = \frac{\text{Net Profit}}{\text{Loan \& Advances}}$$

Year	Net Profit	Loan and Advances	Ratio
2004	537	6410	0.0837
2005	539	8143	0.0662
2006	658	8935	0.0736
2007	692	10503	0.0658
2008	818	33335	0.0596
Total			

$$\text{Mean} = \frac{37.86}{5} = 7.57$$

$$\text{S.D} = \sqrt{\frac{0.000016}{5}} = 0.00178$$

$$\text{C.V.} = \frac{s}{\bar{X}} \times 100 = \frac{0.00178}{7.57} \times 100 = 0.023\%$$

Table no: 13
Total Interest Earned to Total Working Fund (%) SCBNL

Year	Total Interest Earned	Total Working fund	Ratio
2004	1042	21642	0.044
2005	1058	21893	0.048
2006	1189	25776	0.046
2007	1411	28596	0.049
2008	1591	33335	0.048
Total			0.235

$$\text{Mean} = \frac{\sum X}{N} = \frac{0.235}{5} = 0.047$$

$$\text{S.D.} = 0.00178$$

$$\text{C.V} = 3.81$$

Table no: 15
Credit Risk Ratio (%)

Year	Total Loan and Advances	Total Assets	Ratio
2004	6410	21642	0.2711
2005	8143	21893	0.3719
2006	8935	25776	0.3466
2007	10503	28596	0.3673
2008	13718	33335	0.4115
Total			1.7684

$$\text{Mean} = \frac{\sum X}{N} = 0.3256$$

$$\text{S.D.} = 0.0454$$

$$\text{C.V} = 13.94$$

SCBNL
Table no: 16
Liquidity Risk Ratio

Year	Cash and B/L	Total Deposit	Ratio
2003	1513	18756	0.0806
2004	2023	21161	0.095
2005	1111	19335	0.057
2006	1275	23061	0.055
2007	2021	24647	0.082
Total			0.3696

$$\text{Mean} = \frac{\sum X}{N} = \frac{0.3696}{5} = 0.074$$

$$\text{S.D} = \sqrt{\frac{(\sum (x-\bar{X})^2)}{N}} = \sqrt{\frac{0.001198}{5}} = 0.015$$

$$\text{C.V} = 20.27$$

1. NABIL Current Ratio

Year	CA	CL	Ratio	(x- $\bar{X}$)
2004	15911	15262	1.042	-0.004
2005	16280	15527	1.048	-0.0002
2006	21463	20453	1.049	0.003
2007	26452	25194	1.049	0.003
2008	35928	34455	1.042	-0.004
Total			5.230	

$$\text{Mean} = \bar{X} = \frac{\sum x}{N} = 1.0422$$

$$s = 0.0098$$

$$\text{C.V} = 0.94$$

2. Cash and Bank Balance to Total Deposit Ratio

Year	Cash and B/L	Total Deposit	Ratio	(x- $\bar{X}$)	(x- $\bar{X}$) ²
2004	969	14119	0.0686	0.012	0.000144

2005	559	14586	0.0383	0.0183	0.00033489
2006	629	19347	0.0325	-0.0241	0.00058081
2007	1399	23342	0.0599	-0.0033	0.00001089
2008	2671	31915	0.0837	0.0271	0.0007344
Total			0.2831		0.00180499

$$\text{Mean} = \bar{X} = \frac{\sum x}{N} = \frac{0.2831}{5} = 0.057$$

$$\text{S.D} = \sqrt{\frac{\sum (x - \bar{X})^2}{N}} = \sqrt{\frac{0.00188}{5}} = 0.0194$$

$$\text{C.V} = 33.33$$

3. Cash and B/L to C.A Ratio.

Year	Cash and B/L	C.A	Ratio	$(x - \bar{X})$	$(x - \bar{X})^2$
2004	969	15911	0.0609	0.0231	0.00053361
2005	559	16280	0.0343	0.0108	0.00011664
2006	629	21463	0.0293	-0.0158	0.000249
2007	1399	26452	0.0582	-0.0208	0.000433
2008	2671	35928	0.0743	0.0027	0.00000729
Total			0.257		0.0133954

$$\text{Mean} = \bar{X} = \frac{\sum x}{N} = \frac{0.2505}{5} = 0.0501$$

$$\text{S.D} = \sqrt{\frac{\sum (x - \bar{X})^2}{N}} = \sqrt{\frac{0.00133954}{5}} = 0.01636$$

$$\text{C.V} = 10.45$$

4. Investment on Government Security to CA Ratio.

Year	Gov. Sec.	C.A	Ratio	$(x - \bar{X})$	$(x - \bar{X})^2$
2004	3672	15911	0.230	0.07724	0.00596
2005	2413	16280	0.148	0.07724	0.00596
2006	2300	21463	0.107	-0.00476	0.0000227
2007	4807	26452	0.182	-0.04576	0.00209
2008	4646	35928	0.129	0.02924	0.000855
Total			0.796		0.01489

$$\text{Mean} = \bar{X} = \frac{\sum x}{N} = \frac{0.7638}{5} = 0.15276$$

$$\text{S.D } \sigma = \sqrt{\frac{\sum (x - \bar{X})^2}{N}} = \sqrt{\frac{0.01489}{5}} = 0.0546$$

$$\text{C.V} = 36.67$$

5. Loan and Advance to Current Assets Ratio

Year	Loan and Advance	C.A	Ratio	$(x - \bar{X})$	$(x - \bar{X})^2$
2004	8189	15911	0.5146	-0.07304	0.000284
2005	10586	16280	0.650	-0.05554	0.005334
2006	12992	21463	0.602	0.07986	0.00637
2007	15545	26452	0.587	0.03186	0.001015
2008	21365	35928	0.594	0.01686	0.0002842
Total			2.9656		0.013287

$$\text{Mean} = \bar{X} = \frac{\sum x}{N} = \frac{2.8507}{5} = 0.57014$$

$$\text{S.D } \sigma = \sqrt{\frac{\sum (x - \bar{X})^2}{N}} = \sqrt{\frac{0.013287}{5}} = 0.05155$$

$$\text{C.V} = \frac{\sigma}{\bar{X}} \times 100 = 8.94$$

6. Asset Management Ratio (Activity ratio)

1. Loan and Advance to Total Deposit

Year	Loan	Total Deposit	Ratio	$(x-\bar{X})$	$(x-\bar{X})^2$
2004	8189	14119	0.5799	-0.08186	0.00670105
2005	10586	14586	0.7257	-0.06394	0.0040883
2006	12992	19347	0.6679	0.00614	0.000037699
2007	15545	23342	0.6659	0.00414	0.000017139
2008	21365	31915	0.6694	0.00764	0.000058369
Total			3.3088		0.010902557

$$\text{Mean} = \bar{X} = \frac{\sum x}{N} = \frac{3.2161}{5} = 0.64322$$

$$\text{S.D } \sigma = \sqrt{\frac{\sum (x-\bar{X})^2}{N}} = \sqrt{\frac{0.016357}{5}} = 0.05719$$

$$\text{C.V} = 8.91$$

2. Total Investment to Total Deposit Ratio

Year	Total Investment	Total Deposit	Ratio	$(x-\bar{X})$	$(x-\bar{X})^2$
2004	5835	14119	0.4132	0.07716	0.005953
2005	4267	14586	0.2925	0.04186	0.001752
2006	6178	19347	0.3193	-0.07884	0.006215
2007	8945	23342	0.3832	-0.05204	0.002708
2008	9939	31915	0.3114	0.01186	0.0001406
Total			1.7196		0.01676

$$\text{Mean} = \bar{X} = \frac{\sum x}{N} = \frac{1.8567}{5} = 0.37134$$

$$\text{S.D } \sigma = \sqrt{\frac{\sum (x - \bar{X})^2}{N}} = \sqrt{\frac{0.01676}{5}} = 0.058$$

$$\text{C.V.} = 15.63$$

3. Loan and Advances to Total Working Fund

Year	Loan	Total working Fund	Ratio	(x- $\bar{X}$)	(x- $\bar{X}$) ²
2004	8189	16745	0.4890	-0.0771	0.005944
2005	10586	17064	0.6203	-0.0563	0.003169
2006	12922	22329	0.5787	0.075	0.005625
2007	15545	27253	0.5703	0.0334	0.001115
2008	21365	31782	0.5746	0.025	0.000625
Total			2.8329		0.016478

$$\text{Mean} = \bar{X} = \frac{\sum x}{N} = \frac{2.7265}{5} = 0.5453$$

$$\text{S.D } \sigma = \sqrt{\frac{\sum (x - \bar{X})^2}{N}} = \sqrt{\frac{0.016478}{5}} = 0.05740$$

$$\text{C.V.} = 10.36$$

4. Investment on Government Securities to Total Working Fund

Year	Investment on govt. securities	Total Working fund	Ratio	$(x-\bar{X})$	$(x-\bar{X})^2$
2004	3672	16745	0.2192	0.04528	0.002050
2005	2414	17064	0.1415	0.04788	0.00229
2006	2300	22329	0.1030	-0.02982	0.000889
2007	4807	27253	0.1763	-0.06832	0.004667
2008	4646	37182	0.1249	0.00498	0.0000248
Total			0.7649		0.009921

$$\text{Mean} = \bar{X} = \frac{\sum x}{N} = \frac{0.8566}{5} = 0.17132$$

$$\text{S.D } \sigma = \sqrt{\frac{\sum (x-\bar{X})^2}{N}} = \sqrt{\frac{0.009921}{5}} = 0.0445$$

$$\text{C.V.} = 26.31$$

5. Investment on Share and Deb. to Total Working Fund Ratio.

Year	Investment on share and deb.	Total working fund	Ratio	$(x-\bar{X})$	$(x-\bar{X})^2$
2004	22	16745	0.001314	0.0088928	0.0000790818
2005	443	17064	0.0259	0.0156932	0.000246276
2006	104	22329	0.00465	0.0055568	0.000030878
2007	286	27253	0.01049	0.0002832	0.000000080
2008	323	37182	0.00868	0.00868	0.00000233
Total			0.051034		0.000358645

$$\text{Mean} = \bar{X} = \frac{\sum x}{N} = \frac{0.04368}{5} = 0.008738$$

$$\text{S.D } \sigma = \sqrt{\frac{\sum (x - \bar{X})^2}{N}} = \sqrt{\frac{0.000424}{5}} = 0.0092086$$

$$\text{C.V.} = 105$$

4.1.3 Profitability Ratio

$$1. \text{ Return on total working fund ratio} = \frac{\text{Net profit}}{\text{Total Working Fund}}$$

Year	Net profit	Total Working fund	Ratio	(x- $\bar{X}$)	(x- $\bar{X}$) ²
2004	455	16745	0.0271	-0.00203	0.00000412
2005	520	17064	0.0304	-0.00004	0.0000000016
2006	635	22329	0.0284	0.00326	0.000106
2007	673	27253	0.0246	0.00126	0.00000158
2008	746	31782	0.0200	-0.00254	0.00000645
Total			0.1305		0.0001182

$$\text{Mean} = \bar{X} = \frac{\sum x}{N} = \frac{0.1357}{5} = 0.02714$$

$$\text{S.D} = \sqrt{\frac{\sum (x - \bar{X})^2}{N}} = \sqrt{\frac{0.0001182}{5}} = 0.00486$$

$$\text{c.v.} = 17.93$$

2. Return on Loan and Advance Ratio (%)

Year	N.P.	Loan and Advance	Ratio	$(x-\bar{X})$	$(x-\bar{X})^2$
2004	455	8189	0.0556	0.00347	0.0000120
2005	520	10586	0.0491	0.00547	0.0000299
2006	635	12922	0.0491	-0.00103	0.00000106
2007	673	15545	0.0433	-0.00103	0.00000106
2008	746	21365	0.0349	-0.00683	0.0000466
Total			0.232		0.00009067

$$\text{Mean} = \bar{X} = \frac{\sum x}{N} = \frac{0.25069}{5} = 0.05013$$

$$\text{S.D} = \sqrt{\frac{\sum (x-\bar{X})^2}{N}} = \sqrt{\frac{0.00009067}{5}} = 0.00425$$

$$\text{c.v.} = 8.48$$

NABIL

Credit Risk Ratio

Loan and Advance to Total Assets Ratio

Year	Loan and Advance	Total Assets	Ratio	$(x-\bar{X})$	$(x-\bar{X})^2$
2004	8189	16745	0.489	-0.077	0.0059
2005	10586	17064	0.620	-0.056	0.00313
2006	12992	22329	0.578	0.075	0.0056
2007	15545	27253	0.570	0.033	0.00108
2008	21365	37182	0.574	0.025	0.000625
Total			2.831		0.016335

$$\text{Mean} = \bar{X} = \frac{\sum x}{N} = \frac{2.725}{5} = 0.545$$

$$\text{S.D } \sigma = \sqrt{\frac{\sum (x - \bar{X})^2}{N}} = \sqrt{\frac{0.016335}{5}} = 0.00327$$

$$\text{c.v.} = 0.6$$

Loan and Advance to Total Deposit

Year	Loan and Advance	Total Deposit	Ratio	$(x - \bar{X})$	$(x - \bar{X})^2$
2004	8189	13447	0.5767	-0.06652	0.004425
2005	10586	14119	0.5799	-0.06332	0.004009
2006	12992	14586	0.7257	0.08248	0.00680
2007	15545	19347	0.6679	0.02468	0.000609
2008	15545	23342	0.6659	0.02268	0.000514
Total			3.2161		0.016357

$$\text{Mean} = \bar{X} = \frac{\sum x}{N} = \frac{3.2161}{5} = 0.64322$$

$$\text{S.D } \sigma = \sqrt{\frac{\sum (x - \bar{X})^2}{N}} = \sqrt{\frac{0.016357}{5}} = 0.05719$$

$$\text{c.v.} =$$

Liquidity Risk Ratio

Year	Cash and C/L	Total Deposit	Ratio	$(x-\bar{X})$	$(x-\bar{X})^2$
2004	969	14119	0.0686	0.0283	0.00080
2005	559	14586	0.038	-0.499	0.2490
2006	629	19347	0.0325	-0.0187	0.000349
2007	1399	23342	0.0599	-0.0242	0.000585
2008	2671	31915	0.0837	0.0032	0.0000102
Total			0.2826		0.250

$$\text{Mean} = \bar{X} = \frac{\sum x}{N} = \frac{0.2834}{5} = 0.0567$$

$$\text{S.D} = \sqrt{\frac{\sum (x-\bar{X})^2}{N}} = \sqrt{\frac{0.2507}{5}} = 0.223$$

$$\text{C.V.} = 393$$

SCBNL

Growth Calculation

D_n = Total Deposit in the n^{th} year.

D_0 = Total Deposit in the initial year.

G = Growth rate.

Now, We have

$$D_n = D_0 (1+g)^{n-1}$$

$$D_{2008} = D_{2004} (1+g)^{5-1}$$

Appendix -17

Calculation for Growth Ratio of Total Deposit SCBNL.

$$24647 = 18756(1+g)^{5-1}$$

$$\text{or, } (1+g) = \left[\frac{24647}{18756} \right]^{1/4}$$

$$\therefore 1+g = 1.0706$$

$$g = 1.0706 - 1$$

$$= 0.0706$$

Appendix - 18

Calculation for growth of total loan and advance.

$$10503 = 5695 (1+g)^{5-1}$$

$$\text{or, } 1+g = \left(\frac{10503}{5695} \right)^{1/4}$$

$$\text{or, } 1+g = 1.1653$$

$$\text{or, } 1+g = \therefore g = 0.165$$

Appendix - 19

calculation for growth ratio of total Investment SCBNL

$$13553 = 10357 (1+g)^{5-1}$$

$$\text{or, } 1+g = \left(\frac{13553}{10357} \right)^{1/4}$$

$$\text{or, } 1+g = 1.069$$

$$\therefore g = 0.069$$

Appendix - 20

Calculation of growth ratio of net profit

$$692 = 506 (1+g)^{n-1}$$

$$\text{or, } 1+g = \left(\frac{692}{506} \right)^{1/4}$$

$$\text{or, } 1+g = 1.081$$

$$\therefore g = 0.081$$

Growth Calculation of NABIL

Appendix - 21

Calculation for growth ratio of total deposit NABIL

$$D_{2007} = D_{2003} (1+g)^{n-1}$$

$$84841 = 13447 (1+g)^{5-1}$$

$$\text{or, } 1+g = \left(\frac{84841}{13447}\right)^{1/4}$$

$$\text{or, } 1+g = 1.5848$$

$$\therefore g = 0.585$$

Appendix - 22

Calculation for growth of total loan and advance

$$15545 = 7755 (1+g)^{5-1}$$

$$\text{or, } 1+g = \left(\frac{15545}{7755}\right)^{1/4}$$

$$\text{or, } 1+g = 1.1898$$

$$\begin{aligned}\therefore g &= 1.1898-1 \\ &= 0.189\end{aligned}$$

Appendix - 23

Calculation for growth ratio of total Investment NABIL

$$8945 = 6031 (1+g)^{5-1}$$

$$\text{or, } 1+g = \left(\frac{8945}{6031}\right)^{1/4}$$

$$\text{or, } 1+g = 1.10356$$

$$\therefore g = 0.1035$$

Appendix - 24

Calculation of growth ratio of net profit (NABIL)

$$673 = 416 (1+g)^{5-1}$$

$$\text{or, } 1+g = \left(\frac{673}{416}\right)^{1/4}$$

$$\text{or, } 1+g = 1.1277$$

$$\begin{aligned}\therefore g &= 1.1277-1 \\ &= 0.1277\end{aligned}$$

ANNEX

1. Calculation of Correlation Between Total Deposits and Net Profit of SCBNL.

F/Y	Total Deposits (X)	Net Profit (Y)	X - $\bar{X}$	Y - $\bar{Y}$	(X - $\bar{X}$) ²	(Y - $\bar{Y}$) ²	(X - $\bar{X}$)(Y - $\bar{Y}$)
2004	21161	538	-2428.4	-105	5897126.56	11025	254982
2005	19335	539	-4254.4	-104	18099919.36	10816	442457.6
2006	23061	659	-528.4	16	279206.56	256	8454.4
2007	24647	691	1057.6	48	1118517.76	2304	50764.8
2008	29743	818	6153.6	175	37866792.96	30625	1076880
Total	117947	3215			63261563.2	55026	1833538.4

$$\bar{X} = \frac{\sum X}{N} = \frac{117947}{5} = 23589.4$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{3215}{5} = 643$$

Correlation Co-efficient can be calculated by using following formula;

$$r = \frac{\sum (X - \bar{X})(Y - \bar{Y})}{\sqrt{\sum (X - \bar{X})^2} \sqrt{\sum (Y - \bar{Y})^2}}$$

$$= \frac{1833538.4}{\sqrt{63261563.2} \sqrt{55026}} = 0.9827$$

$$r = 0.9827$$

$$r^2 = 0.9657$$

Now,

Calculation of probable error P.E. (r)

$$\begin{aligned}
 P.E.(r) &= 0.6745 \frac{1-r^2}{\sqrt{N}} \\
 &= 0.6745 \frac{1-0.9657}{\sqrt{5}} \\
 &= 0.6745 \times \frac{0.0343}{2.236} \\
 &= 0.01035
 \end{aligned}$$

$$\begin{aligned}
 \text{Then significance of relationship} &= 6 \times P.E.(r) \\
 &= 6 \times 0.01035 \\
 &= 0.0621
 \end{aligned}$$

Calculation of Correlation between Total Deposits and Net Profit of NABIL.

F/Y	Total Deposits (X)	Net Profit (Y)	$X - \bar{X}$	$Y - \bar{Y}$	$(X - \bar{X})^2$	$(Y - \bar{Y})^2$	$(X - \bar{X})(Y - \bar{Y})$
2004	14119	455	-6542.8	-150.8	42808231.84	22740.64	986654.24
2005	141586	520	-6075.8	-85.8	36915345.64	7361.64	521303.64
2006	19347	635	-1314.8	-29.2	1728699.04	852.64	38392.16
2007	23342	673	2680.2	67.2	7183472.04	4515.84	180109.44
2008	31915	746	11253.2	140.2	126634510.2	19656.04	1577698.64
.Total	103309	3029			215270258.8	55126.8	3304158.12

$$\bar{X} = \frac{\sum X}{N} = \frac{103309}{5} = 20661.8$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{3029}{5} = 605.8$$

Correlation Co-efficient can be calculated by using following formula;

$$r = \frac{\sum (X - \bar{X})(Y - \bar{Y})}{\sqrt{\sum (X - \bar{X})^2} \sqrt{\sum (Y - \bar{Y})^2}}$$

$$\begin{aligned}
 &= \frac{3304158.12}{\sqrt{215270258.8} \sqrt{55126.8}} \\
 &= 0.95915
 \end{aligned}$$

$$r = 0.95915$$

$$r^2 = 0.91997$$

Now,

Calculation of probable error P.E. (r)

$$\begin{aligned} P.E.(r) &= 0.6745 \frac{1-r^2}{\sqrt{N}} \\ &= 0.6745 \frac{1-0.91997}{\sqrt{5}} \\ &= 0.6745 \times \frac{0.08003}{2.236} \\ &= 0.02414 \end{aligned}$$

$$\begin{aligned} \text{Then significance of relationship} &= 6 \times P.E.(r) \\ &= 6 \times 0.02414 \\ &= 0.14148 \end{aligned}$$

2. Calculation of correlation between total deposits and total Investment of SCBNL.

F/Y	Total Deposits (X)	Total Investment (y)	X - $\bar{X}$	Y - $\bar{Y}$	(X - $\bar{X}$) ²	(Y - $\bar{Y}$) ²	(X - $\bar{X}$) (Y - $\bar{Y}$)
2004	21161	11360	- 2428.4	-912.6	5897126.56	832838.76	2216157.84
2005	19335	9702	- 4254.4	- 2570.6	18099919.36	6607984.36	10936360.64
2006	23061	12847	-528.4	574.4	279206.56	329935.36	30351.96
2007	24647	13553	1057.6	1279.4	1118517.76	1636864.36	1353093.44
2008	29743	13902	6153.6	6129.4	3786679.96	2654944.36	10026675.84
Total	117947	61363			63261563.2	12062567.2	24835800.72

$$\bar{X} = \frac{\sum X}{N} = \frac{117947}{5} = 23589.4$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{61363}{5} = 12272.6$$

Correlation Co-efficient can be calculated by using following formula;

$$r = \frac{\sum (X - \bar{X})(Y - \bar{Y})}{\sqrt{\sum (X - \bar{X})^2} \sqrt{\sum (Y - \bar{Y})^2}}$$

$$= \frac{24835800.72}{\sqrt{63261563.2} \sqrt{12062567.2}}$$

$$= 0.8990$$

$$r = 0.8990$$

$$r^2 = 0.8082$$

Now,

Calculation of probable error P.E. (r)

$$P.E.(r) = 0.6745 \frac{1 - r^2}{\sqrt{N}}$$

$$= 0.6745 \frac{1 - 0.8082}{\sqrt{5}}$$

$$= 0.6745 \times \frac{0.1918}{2.236}$$

$$= 0.0579$$

$$\text{Then significance of relationship} = 6 \times P.E.(r)$$

$$= 6 \times 0.0579$$

$$= 0.3474$$

Calculation of Correlation Between Total Deposit and Total Investment of NABIL.

F/Y	Total Deposits (X)	Total Investment (y)	X - $\bar{X}$	Y - $\bar{Y}$	(X - $\bar{X}$) ²	(Y - $\bar{Y}$) ²	(X - $\bar{X}$)(Y - $\bar{Y}$)
2004	14119	5835	-6542.8	-1197.8	42808231.84	1434724.84	7836965.84
2005	14586	4267	-6075.8	-2765.8	36915345.64	7649649.64	16804447.64
2006	19347	6178	-13148	-854.8	1728679904	730683.04	11238910.4
2007	23342	8945	2680.2	1912.2	7183472.04	3656508.84	5125078.44
2008	31915	9939	11253.2	2906.2	126634510.2	8445998.44	32704049.84
Total	103309	35164			215270258.8	21917564.8	73709452.16

$$\bar{X} = \frac{\sum X}{N} = \frac{103309}{5} = 20661.8$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{35164}{5} = 7032.8$$

Correlation Co-efficient can be calculated by using following formula;

$$r = \frac{\sum (X - \bar{X})(Y - \bar{Y})}{\sqrt{\sum (X - \bar{X})^2} \sqrt{\sum (Y - \bar{Y})^2}}$$

$$= \frac{73709452.16}{\sqrt{215270258.8} \sqrt{21917564.8}}$$

$$= 0.9258$$

$$r = 0.9258$$

$$r^2 = 0.8572$$

Now,

Calculation of probable error P.E. (r)

$$\begin{aligned}
 P.E.(r) &= 0.6745 \frac{1-r^2}{\sqrt{N}} \\
 &= 0.6745 \frac{1-1.2076}{\sqrt{5}} \\
 &= 0.6745 \times \frac{-0.2076}{2.236} \\
 &= -0.06259
 \end{aligned}$$

$$\begin{aligned}
 \text{Then significance of relationship} &= 6 \times P.E.(r) \\
 &= 6 \times -0.06259 \\
 &= -0.37554
 \end{aligned}$$

3. Calculation of correlation Coefficient between Total Deposit and Loan and Advance of SCBNL

F/Y	Total Deposits (X)	Loan and Advance (y)	X - $\bar{X}$	Y - $\bar{Y}$	(X - $\bar{X}$) ²	(Y - $\bar{Y}$) ²	(X - $\bar{X}$)(Y - $\bar{Y}$)
2004	21161	6410	-2428.8	-3131.8	5897126.56	9808171.24	7606515.84
2005	19335	8143	-4254.4	-1398.8	18099919.36	1956641.44	5951054.72
2006	23061	8935	-528.4	-606.8	279206.56	368206.24	320633.12
2007	24647	10503	1057.6	961.2	1118517.76	923905.44	1016565.12
2008	29743	13718	6153.6	4176.2	3786679.96	17440646.44	25698664.32
Total	117947	47709			63261563.2	30497570.8	40593433.12

$$\bar{X} = \frac{\sum X}{N} = \frac{117947}{5} = 23589.4$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{47709}{5} = 9541.8$$

Correlation Co-efficient can be calculated by using following formula;

$$\begin{aligned}
 r &= \frac{\sum (X - \bar{X})(Y - \bar{Y})}{\sqrt{\sum (X - \bar{X})^2} \sqrt{\sum (Y - \bar{Y})^2}} \\
 &= \frac{40593433.12}{\sqrt{63261563.2} \sqrt{30497570.8}} \\
 &= 0.924
 \end{aligned}$$

$$r = 0.924$$

$$r^2 = 0.85378$$

Now,

Calculation of probable error P.E. (r)

$$\begin{aligned}
 P.E.(r) &= 0.6745 \frac{1 - r^2}{\sqrt{N}} \\
 &= 0.6745 \frac{1 - 0.85378}{\sqrt{5}} \\
 &= 0.6745 \times \frac{0.14622}{2.236} \\
 &= -0.04410
 \end{aligned}$$

$$\begin{aligned}
 \text{Then significance of relationship} &= 6 \times P.E.(r) \\
 &= 6 \times 0.04410 \\
 &= -0.2646
 \end{aligned}$$

Calculation of Correlation Coefficient Between Total Deposit and Loan and Advance of NABIL.

F/Y	Total Deposits (X)	Loan and Advance (y)	$X - \bar{X}$	$Y - \bar{Y}$	$(X - \bar{X})^2$	$(Y - \bar{Y})^2$	$(X - \bar{X})(Y - \bar{Y})$
2004	14119	8189	-6543	-5532	42810849	30603024	36195876
2005	14586	10586	-6076	-3135	36917776	9828225	19048260
2006	19347	12922	-1315	-799	1729225	638401	1050685
2007	23342	15545	2680	1824	7182400	3326976	4888320
2008	31916	21365	11254	7644	126652516	58430736	86025576
Total	103310	68607			215292766	102827362	147208717

$$\bar{X} = \frac{\sum X}{N} = \frac{103310}{5} = 20662$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{68607}{5} = 13721$$

Correlation Co-efficient can be calculated by using following formula;

$$r = \frac{\sum (X - \bar{X})(Y - \bar{Y})}{\sqrt{\sum (X - \bar{X})^2} \sqrt{\sum (Y - \bar{Y})^2}}$$

$$= \frac{147208717}{\sqrt{215292766} \sqrt{102827362}}$$

$$= 0.9893$$

$$r = 0.9893$$

$$r^2 = 0.9787$$

Now,

Calculation of probable error P.E. (r)

$$\begin{aligned}
 P.E.(r) &= 0.6745 \frac{1-r^2}{\sqrt{N}} \\
 &= 0.6745 \frac{1-0.9787}{\sqrt{5}} \\
 &= 0.6745 \times \frac{0.0213}{2.236} \\
 &= 0.006425
 \end{aligned}$$

$$\begin{aligned}
 \text{Then significance of relationship} &= 6 \times P.E.(r) \\
 &= 6 \times 0.006425 \\
 &= 0.0385
 \end{aligned}$$

4. Calculation of correlation between current assets and current liabilities of SCBNL

F/Y	Current Assets (X)	Current Liabilities (y)	X - $\bar{X}$	Y - $\bar{Y}$	(X - $\bar{X}$) ²	(Y - $\bar{Y}$) ²	(X - $\bar{X}$)(Y - $\bar{Y}$)
2004	22012	22146	-3580.4	-2590.2	12819264.16	6709136.04	9273952.08
2005	21216	20199	-4376.4	-4537.2	19152876.96	20586183.84	19856602.08
2006	25027	24013	-565.4	-723.2	319677.16	523018.24	408897.28
2007	27838	26480	2245.6	1743.8	5042719.36	3040838.44	3915877.28
2008	31869	30843	6276.6	6106.8	39395707.56	37293006.24	38329940.88
Total	127962	123681			57768973.2	68152182.8	71785269.6

$$\bar{X} = \frac{\sum X}{N} = \frac{127962}{5} = 25592.4$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{123681}{5} = 24736.2$$

Correlation Co-efficient can be calculated by using following formula;

$$r = \frac{\sum (X - \bar{X})(Y - \bar{Y})}{\sqrt{\sum (X - \bar{X})^2} \sqrt{\sum (Y - \bar{Y})^2}}$$

$$= \frac{71785269.6}{\sqrt{57768973.2} \sqrt{68152182.8}}$$

$$= 0.9926$$

$$r = 0.9926$$

$$r^2 = 0.9852$$

Now,

Calculation of probable error P.E. (r)

$$P.E.(r) = 0.6745 \frac{1 - r^2}{\sqrt{N}}$$

$$= 0.6745 \frac{1 - 0.9852}{\sqrt{5}}$$

$$= 0.6745 \times \frac{-0.3087}{2.236}$$

$$= - 0.0044$$

Then significance of relationship = $6 \times P.E.(r)$

$$= 6 \times - 0.0044$$

$$= - 0.0267$$

Calculation of Correlation Coefficient Between Current Assets and Current Liabilities of NABIL.

F/Y	Current Assets (X)	Current Liabilities (y)	$X - \bar{X}$	$Y - \bar{Y}$	$(X - \bar{X})^2$	$(Y - \bar{Y})^2$	$(X - \bar{X})(Y - \bar{Y})$
2004	15911	15262	-7295.8	-6916.2	53228697.64	47833822.44	50459211.96
2005	16280	15527	-6926.8	-6651.2	47980558.24	44238461.44	46071532.16
2006	21463	20453	-1743.8	-1725.2	3040838.44	2976315.04	3008403.76
2007	26452	25194	3245.2	3015.8	10531323.04	9095049.64	9786874.16
2008	35928	34455	12721.2	12276.8	161828929.4	150719818.2	156175628.2
Total	116034	110891			276610346.8	254863466.8	265501650.2

$$\bar{X} = \frac{\sum X}{N} = \frac{116034}{5} = 23206.8$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{110891}{5} = 22178.2$$

Correlation Co-efficient can be calculated by using following formula;

$$r = \frac{\sum (X - \bar{X})(Y - \bar{Y})}{\sqrt{\sum (X - \bar{X})^2} \sqrt{\sum (Y - \bar{Y})^2}}$$

$$= \frac{265501650.2}{\sqrt{276610346.8} \sqrt{254863466.8}}$$

$$= 0.999$$

$$r = 0.999$$

$$r^2 = 0.9980$$

Now,

Calculation of probable error P.E. (r)

$$\begin{aligned}
 P.E.(r) &= 0.6745 \frac{1-r^2}{\sqrt{N}} \\
 &= 0.6745 \frac{1-0.9980}{\sqrt{5}} \\
 &= 0.6745 \times \frac{0.002}{2.236} \\
 &= 0.00060327
 \end{aligned}$$

$$\begin{aligned}
 \text{Then significance of relationship} &= 6 \times P.E.(r) \\
 &= 6 \times 0.00060327 \\
 &= 0.003619
 \end{aligned}$$

Trend Analysis of SCBNL

Appendix - 21

Trend value of total deposit

Year	Total Deposit (y)	YrsX = t-2006	X ²	XY	Y = a+bx
2004	21161	-2	4	-42322	19094.2
2005	19335	-1	1	-193315	21341.8
2006	23061	0	0	0	23589.4
2007	24647	1	1	24647	25837
2008	29743	2	4	59486	28084.6
Total	117947		10	22476	

$$n = 5$$

$$a = \frac{\sum y}{n} = \frac{117947}{5} = 23589.4$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{22476}{10} = 2247.6$$

Projected tend value of T. Dep. (2009-2013)

Year	X= t-2006	Y = 23589.4+2247.6X
2009	3	30332.2
2010	4	32579.8
2011	5	34827.4
2012	6	37075
2013	7	39322.6
Total		

Trend Analysis of NABIL

Year	Total Deposit (y)	Yrs X=t-2006	X ²	XY	Y = a+bx
2004	14119	-2	4	-28238	11792.2
2005	14586	-1	1	-14586	16227
2006	19347	0	0	0	20661.8
2007	23342	1	1	23343	25096.6
2008	31915	2	4	63830	29531.4
Total	103309		10	44348	

Now

$$n = 5$$

$$a = \frac{\sum y}{n} = \frac{103309}{5} = 20661.8$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{44348}{10} = 4434.8$$

Projected trend value of total deposit

Year	X=t-2006	Y = 20661.8+4434.8X
2009	3	33966.2
2010	4	38401
2011	5	42835.8
2012	6	47270.6
2013	7	51705.4
Total		

Appendix - 22

Trend value of loan and advances SCBNL

Year	Loan and Advance (y)	Yrs X=t-2006	X ²	XY	Y = a+bx
2004	6410	-2	4	-12820	6146.6
2005	8143	-1	1	-8143	7844.2
2006	8935	0	0	0	9541.8
2007	10503	1	1	10503	11239.4
2008	13718	2	4	27436	12937
Total	47709		10	16976	

Now

$$n = 5$$

$$a = \frac{\sum y}{n} = \frac{47709}{5} = 9541.8$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{16976}{10} = 1697.6$$

Projected trend value of loan and advance

Year	X=t-2006	Y = 9541.8+1697.6X
2009	3	14634.6
2010	4	16332.2
2011	5	18029.8
2012	6	19727.4
2013	7	21425
Total		

NABIL

Year	Total Deposit (y)	Yrs X=t-2006	X ²	XY	Y = a+bx
2004	8189	-2	4	-16378	7459.2
2005	10586	-1	1	-10586	10590.1
2006	12922	0	0	0	13721.4
2007	15545	1	1	15545	16852.5
2008	21365	2	4	42730	19983.6
Total	68607		10	31311	

Now

$$n = 5$$

$$a = \frac{\sum y}{n} = \frac{68607}{5} = 13721.4$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{31311}{10} = 3131.1$$

Projected trend value of total deposit

Year	X=t-2006	Y = 13721.4+3131.1X
2009	3	23114.7
2010	4	26245.8
2011	5	29376.9
2012	6	32508
2013	7	35639.1
Total		

Trend Analysis

Appendix 23

Trend value of total investments.

Year	Total Investment (y)	Yrs X=t-2006	X ²	XY	Y = a+bx
2004	11360	-2	4	-22720	10485.8
2005	9702	-1	1	-9702	11379.2
2006	12847	0	0	0	12272.6
2007	13552	1	1	13552	13166
2008	13902	2	4	27804	14059.4
Total	61363			8934	

Now

$$n = 5$$

$$a = \frac{\sum y}{n} = \frac{61363}{5} = 12272.6$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{8934}{10} = 893.4$$

Projected trend value of Total Investment (2009-2013)

Year	X=t-2006	Y = 12272.6+893.4X
2009	3	14952.8
2010	4	15846.2
2011	5	16739.6
2012	6	17633
2013	7	18526.4
Total		

NABIL

Year	Total Investment (y)	Yrs X=t-2006	X ²	XY	Y = a+bx
2004	5835	-2	4	-11670	4455.6
2005	4267	-1	1	-4267	5744.2
2006	6178	0	0	0	7032.28
2007	8945	1	1	8945	8321.4
2008	9939	2	4	19878	9610
Total	35164			12886	

Now

$$n = 5$$

$$a = \frac{\sum y}{n} = \frac{35164}{5} = 7032.8$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{12886}{10} = 1288.6$$

Projected trend value of Total Investment (2009 - 2013)

Year	X=t-2006	Y = 7032.8+1288.6X
2009	3	10898.6
2010	4	12187.2
2011	5	13475.8
2012	6	14764.4
2013	7	16053
Total		

Appendix - 24

Trend Value Analysis of Total Net Profit.

SCBNL

Year	Net Profit (y)	Yrs X=t-2006	X²	XY	Y = a+bx
2004	537	-2	4	-1074	505.8
2005	539	-1	1	-539	577.3
2006	658	0	0	0	648.8
2007	692	1	1	692	720.3
2008	818	2	4	1636	791.8
Total	3244		10	715	

Now

$$n = 5$$

$$a = \frac{\sum y}{n} = \frac{3244}{5} = 648.8$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{715}{10} = 71.5$$

Projected Trend Value of Total Net Profit (2009-2013)

Year	X=t-2006	Y = 648.8+71.5X
2009	3	863.3
2010	4	934.8
2011	5	1006.3
2012	6	1077.8
2013	7	1149.3
Total		

NABIL

Year	Net Profit (y)	Yrs X=t-2006	X ²	XY	Y = a+bx
2004	455	-2	4	-910	458.8
2005	520	-1	1	-520	532.3
2006	635	0	0	0	605.8
2007	673	1	1	673	679.3
2008	746	2	4	1492	752.8
Total	3029		10	735	

Now

$$n = 5$$

$$a = \frac{\sum y}{n} = \frac{3029}{5} = 605.8$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{735}{10} = 73.5$$

Projected Trend Value of Net Profit (2009-2013)

Year	$X=t-2006$	$Y = 605.8+73.5X$
2009	3	826.3
2010	4	899.8
2011	5	973.3
2012	6	1046.8
2013	7	1120.3
Total		