CHAPTER I
INTRODUCTION

1.1 Background of the study

Overall national development of any country depends upon the economic development of that country and economic development largely depends upon the financial infrastructure of that country. Therefore, the primary goal of any nation including Nepal is rapid economic development to promote the welfare of the people and the nation as well. Nepal being one of the least developed countries has been trying to embark upon the path of economic development by economic growth rate and developing all sectors of economy.

The proper mobilization and utilization of domestic resources is one of the key factors in the economic development of a country. Similarly, integrated and speedy development of the country is only possible when competitive and reliable banking services are reached and operated to every corner of the country. It has been well established that the economic activities of any country can hardly be carried without the assistance and support of financial institutions. Financial institutions have catalytic role in the process of economic development. The investment policy of financial institutions, especially banks has long term impact not only on their growth and sustainability but also on the economic development of the country. Successful formulation and effective implementation of investment policy is the prime requisite for the successful performance of banks and other financial institutions. Good investment policy has a positive impact on economic development of the country and vice- versa.

The initial step an investing policy involves is determining the investment objectives and the amount of one's investable fund. Investment is always related with risks and returns. Making money alone cannot be an appropriate objective. It

is appropriate to state that the objective is to make a lot of money by recognizing the possible losses.

Investment is a very risky job for a purposeful, safe and profitable investment. Bank must follow sound investment policy. The fundamental principle of investment must be followed thoroughly for profitable investment. Investment policy should ensure maximum amount of investment to all sectors with proper utilization. There is high liquidity in the market and it seems no profitable place to invest these days. Investment policy provides the bank several inputs through which they can handle their investment operation efficiently ensuring the maximum return with minimum risk, which ultimately leads the bank to the path of success to achieve its organizational objectives of shareholders' wealth maximization.

Commercial banks are major financial institutions, which occupy quite an important place in the economy because through the deposits they collect they provide much needed capital for the development of industry, trade and business and other deficit sectors, thereby contributing to the economic growth of the nation.

Investment in the actual sense refers to the sacrifice of current dollars for future dollars (Sharpe, 1986, 9). Investment involves two attributes, time and risk. The sacrifice takes place in the present and is certain. The reward comes later, and the magnitude of which is uncertain. In some cases the element of time predominates (for example, government bonds). In other case, risk is more dominant (for example call option on common stock). In yet others, both time and risk play a dominant role (for example share of common stock).

Investment is the use of money to earn profit. It can be said that investment is concerned with the proper management of the investor's wealth, which are the sum of the current income and the present value of all future income. Fund to be invested come from assets already owned, borrowed money and saving or foregone consumption. By foregoing today

and investing the saving, investors expect to enhance their future consumption possibilities i.e. the fund is invested to increase wealth. Investors also seek to manage their wealth effectively obtaining the most from it, while protecting it from inflation, taxes and other possible harms.

Investment policy involves determining the investor's objectives and the amount of his or her investable wealth. It is not appropriate for an investor to say that his objective is to make a lot of money (Clarke, 1989, 10). What is appropriate for an investor in this situation is to state that the objective is to earn a profit while recognizing that there exist some chances of incurring large losses. Investment objectives should be stated in terms of both risk and return.

Investment promotes economic growth and contributes to a nation's wealth. When people deposit money in the bank, the bank may invest by lending the funds to various businesses. These firms in return may invest in new factories and equipment to increase their production and efficiency. In addition to borrowing from banks, most companies issue stocks and bonds, which they sell to investors to raise capital needed for business expansion. Government also issues bonds, to raise required funds to invest in various projects. Nepal Rastra Bank on behalf of Nepal Government issues bonds, treasury bills to finance the long term and short-term needs of the government. All such investment by individuals, business, government & government entities involve a present sacrifice of income to get an expected future benefit.

The real talent of an investor primarily lies in selecting proper or suitable area for investment with low or moderate risk. Investment policy should ensure minimum risk and maximum profit from lending.

1.2 Statement of the Problem

Commercial banks have huge collection from depositors. Effective utilization of collected fund is possible only through sound investment policy. Most Nepalese commercial banks have not formulated their investment policies in organized manner. They

mainly rely upon the instructions and guidelines issued by NRB. They are unable to estimate the future; they hardly have any clear view towards investment policy. Furthermore, the implementation of policy is not much effective way. The main reason attributed to unsound investment policy are lack of proper analysis on financial risk, interest rate risk, liquidity risk, business risk etc. Joint Venture Banks have become a role model in the improvement of fund mobilization.

The problem that still persists for a bank even today is to find a proper and viable project to ensure healthy profit. They have always feared high degree of risk and uncertainty owing to lack of profitable sectors for their investment. Still, some emerging and existing commercial banks are tempted to invest, without proper credit analysis and on personal guarantee. Some have even sanctioned loan to customers beyond customer's real requirement. The high liquidity position of banks has resulted in a decrease in investment in productive sectors.

Thus, the present study will make a modest attempt to analyze investment policy of two joint venture banks viz. NABIL and SCBNL. This study basically deals with the following issues of Joint Venture Banks (JVB's.)

i) Are the JVB's properly utilizing their available fund?
ii) Whether the fund mobilization and investment policy of JVB's is effective?
iii) Does there any relationship between investment and total deposits as well as loan & advances with net profit of JVB's?
iv) Whether the investment practice of JVB's are sound or not?

1.3 Objective of the Study

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 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, loans & advances, interest earned, and net profit, net profit to outsides assets and total working fund, loan and advances to interest paid & compare them.
- To analyze the trend of deposits, investment, net profit and loan and advances, for next five years of SCBNL and NABIL.
- To make appropriate reommendations/suggestions on the basis of major findings.

1.4 Significance of the Study

Investment activity is the life-blood of any financial institution, since only accumulating deposits has no meaning. Better return can be ensured only when deposits are properly mobilized through sound investment policy.

This study "Comparative Analysis of Investment policy" of two major JVB's will provide a useful feedback to academic institutions, bank employees, trainees, investors, policy making bodies and those concerned with banks in the formulation of appropriate strategies for improving the performance of banks.

1.5 Limitations of the Study

Like every research study, this study also has some limitations viz- inadequate coverage of commercial banks, time period taken and other variables. The following factors are the basic limitations.

1) This study is based on secondary data collected from the banks, particularly based on data gathered from the published annual report of the two banks along with NRB directives issued from time to time.

2) This study is limited to only a period of five years of the concerned banks and hence the conclusion drawn only confines to the above period (F.Y. 2003/2004 to 2007/2008).

3) This study deals with only two JVB's i.e. NABIL and SCBNL. Other commercial banks have not been considered in this study.

4) The samples have been drawn at random for convenience, so there may exit some sampling error. And the sample size may not be sufficient to generalize the findings.

1.6 Definition of Key Terminology

Joint Venture: "A joint venture is the joining of forces between to or more enterprises for the purpose of carrying out a specific operation (industrial or commercial) investment, production or trade". (Grupt;1984:15)

In order to operate a business organization under joint venture basis, there should at least be two partners from two different countries. Joint venture banks are the commercial banks formed by joining two or more enterprises for the purpose of carrying out specific operation such as investment in trade, business and industry as well as in the form of negotiation between various groups of industries or traders to achieve mutual exchange of good and services. JVB's are the mode of trading to achieve mutual exchange of goods and services for sharing competitive advantage by performing joint investment scheme between Nepalese investors and their parent banks each supplying agreed percentage of total investment. The parent banks, which have experience in highly merchandised and efficient modern banking services in many parts of

the world, have come to Nepal with latest technology and advanced management skills. JVB's are established by joining forces and with ability to achieve a common goal with each of the partners. They are more efficient and efficient monetary institution in modern banking fields than other old type of banks in Nepalese context.

The primary objective of these JVB's is always to earn profit by investing or granting loan and advances to people associated with trade, business, industry etc.

Features of a sound lending and Investment Policy

The income and profit of a financial institution depends upon to its lending procedure, lending policy and investment of its fund in different securities. A sound lending and investment policy is not only pre-requisite for bank's profitability but also of utmost significance for the promotion of commercial savings of an under developed and backward country like Nepal.

The factors that banks must consider for sound lending and investment policies are explained as under:

a) Safety and Security

Banks should buy investment rated securities only. It should abstain form investing its fund in those securities, which are subject to greater depreciation and fluctuation for example common stock, since a little difference may result in a great loss. It must not advance its funds to speculative business, which may earn millions in a minute or may become bankrupt the next minute. Since risk is overpriced during recession and under priced during boom banks should invest in medium grade and high-grade securities during recession and boom respectively. Banks should buy securities, which are commercially durable, marketable and have high market price. In this regard, "MAST" should be followed while investing,

Where, M =Marketability

A =Ascertainability
S =Stability
T =Transferability

b) Liquidity

Liquidity is defined as bank's capacity to pay cash in exchange of deposits. People deposit their money in banks because they believe that the bank will repay their money on demand. In order to retain good credit standing and trust and confidence of its customers every banks must maintain enough liquidity to meet its various obligations.

c) Profitability

Commercial banks can maximize its volume of wealth through maximization of return on their investments and lending. They must invest their fund in viable sectors where they can earn maximum profit. Their return depends upon the interest rate, volume of loan, duration of the loan and nature of investment in different securities.

d) Purpose of Loan

It is very important to be reminded that most of the bank failures in the world are due to shrinkage in the value of loan and advances. The first substantive question a banker must examine is how loan proceeds will be used. If the loan purpose conflicts with commercial policy, such as loan for some speculative purpose not acceptable to the banker such loans should not be processed. If customers misuse their borrowings, there is risk involved in repayment and the bank will incur heavy bad debts. Detailed information about the plan and scheme of project should be collected and examined before borrowing.

e) Diversification

Investment and credit concentrated on same geographical region, same sector of business and few customers increase the risk. Hence the policy should fix a cap on all these aspect. As the

saying goes " A bank should not put all its eggs in the same basket", therefore, in order to minimize the risk, a bank should diversify its investment in different securities. This diversification or portfolio investment helps to earn good return and at the same time minimize the risks and uncertainty.

f) Legality

A commercial bank must follow the rules and regulations and statuary directives issued by Nepal Rastra Bank, Ministry of Finance and others while issuing securities and mobilizing their funds. In Nepal, NRB restricts financial institution licensed by it to invest in securities of each other.

1.7 Plan of the Study

The study has been organized in the following chapters in order to make it easy to understand.

The **first chapter** is an introductory chapter which contains background of the study, introduction of commercial banks, focus of the study, statement of the problems, objectives of the study, limitation of the study and organization of the study.

The **second chapter** is concerned with review of literature. This contains conceptual framework, review of legislative provision, review of research paper and published and unpublished master's thesis of T.U.

The **third chapter** is the most important part of the study. It deals with the research methodology, which is applied to collect the data and analyze them in this study. It contains introduction, research design,

sources of data, population and sample, financial analysis and statistical analysis.

The **fourth chapter** is analyzing one, which deals with presentation and analysis of relevant data through definite courses of research methodology with financial and statistical analysis related to financial performances of JBVs. Major findings of the study have been presented at the end of this chapter.

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

CHAPTER - II
REVIEW OF LITERATURE

2. Introduction

Review of literature is one of the most significant parts of research. It will be better to review some fundamental aspects of relevant literature before doing analysis. So, it is attempted to present brief glimpses on the common stock as well findings of the related previous studies. The review of literature has been divided into two broad categories which are as follows:

2.1Theoretical Perspectives

2.1.1Commercial Bank

"Commercial Bank is a corporation which accepts demand deposits subject to check and makes short-term loans to business enterprises, regardless of the scope of its other services". (American Institute of Banking; 1972:325)

Commercial Bank Act 1975 AD (2031 BS) defines, "A commercial bank is one which exchange money, deposits money, accepts deposits, grant loans and performs commercial banking functions and which is not a bank meant for co-operative, agriculture, industries or for such specific purpose". (Commercial Bank Act 2031 BS)

The Commercial bank has its own role and contributions in the economic development. It is a resource for the economic development, it maintains economic confidence of various segments and extends credit to people. (Grywinshki;1991:87)

Commercial bank deals with others money. They have to find ways of keeping their asset liquid so that they could meet the demand of their customers. Liquidity is the lifeline of bank. Any bank perceived to be illiquid cannot attract deposit from the public. Inadequate liquidity does damage credit standing of those organizations, but if banks fail to repay the deposits on demand, the bank loses the trust of the public. This leads to "runs" in the bank and probably bankruptcy thereof. Trade off between liquidity and profitability is thus a crucial task for any bank. Satisfactory trade off is possible through correct prediction of liquidity needs and judicious distribution of resources in various forms of liquid and high earning assets.

The main function of commercial bank is concerned with the accumulation of the temporarily idle money of the general public to advance it to deficit sections i.e. trade and commerce for expenditure. Its main functions are:

- Accepting various types of deposits;
- Lending money in various productive sectors;
- Letter of credit (LC)
- Guarantee (G'tee)
- Remittance
- Bills
- Others

Hence, a commercial bank can be defined as a ''Financial department store", which renders a host of financial services besides taking deposits and giving loans.

2.1.2 Joint Venture

"A joint venture is the joining of forces between to or more enterprises for the purpose of carrying out a specific operation (industrial or commercial) investment, production or trade". (Grupt;1984:15)

In order to operate a business organization under joint venture basis, there should at least be two partners from two different countries.

Joint venture banks are the commercial banks formed by joining two or more enterprises for the purpose of carrying out specific operation such as investment in trade, business and industry as well as in the form of negotiation between various groups of industries or traders to achieve mutual exchange of good and services. JVB's are the mode of trading to achieve mutual exchange of goods and services for sharing competitive advantage by performing joint investment scheme between Nepalese investors and their parent banks each supplying agreed percentage of total investment. The parent banks, which have experience in highly merchandised and efficient modern banking services in many parts of the world, have come to Nepal with latest technology and advanced management skills. JVB's are established by joining forces and with ability to achieve a common goal with each of the partners. They are more efficient and efficient monetary institution in modern banking fields than other old type of banks in Nepalese context.

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f) Legality

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2.1.4 Meaning of Some Important Terminology

a) Assets

Assets, representing economic resources are the valuable possessions owned by the firm. These possessions should be capable of being measured in monetary terms. Assets are the future benefits. They represent: (a) stored purchasing power (e.g. cash), b) money claims (e.g. receivables stock) and (c) tangible and intangible assets that can be sold or used in business to generate earnings. Tangible items include land building, plant equipment or stocks of materials and finished goods and all such other items, which have physical value. Intangible items do not have physical existence, but they have value to the firm. They include patents, copyrights, trade name or goodwill. Assets may be current asset or long-term assets. Current assets are those assets that are expected

to be converted into cash within the accounting period. Long-term assets normally include fixed assets, long-term investment and other non-current assets that are held for longer periods for use in business.

b) Advances

Advances are amount of money, which are paid or lent before any actual benefit has been derived. It could be expenses of future period paid in advance, advance for current supplies or advances against acquisition of capital assets.

c) Balance sheet

Balance sheet is one of the most significant financial statements, which is prepared at the end of each accounting period that indicates the financial condition or the state of affairs of a business at a given moment of time. More specifically, balance sheet contains information about the assets liabilities and ownership equity capital.

d) Bond

A bond is the source of long term financing issued by an organization in written form under which the organization or the borrower agrees to pay principal and interest to the lender on specific date. It may be secured i.e. mortgage bond with fixed assets pledged as security or unsecured like debenture bond.

e) Deposits

Deposits are the main source of fund of the financial institution. It is the sum totals of money collected form the depositors in various accounts.

f) Liquidity position

Liquidity assets are those assets that can be quickly converted into cash. Liquid assets determine the liquidity position of the organization. Higher the liquid assets better the liquidity position. Liquidity position refers to the state of owning things of value that can easily be changed into cash.

g) Share

The part of capital owned by a shareholder is called share. Any person can become a member of a company by purchasing the certificates of investment of the company also called shares, and can withdraw his/her membership by transferring his/her shares. Shares are a major source of long-term financing.

h) Securities

Securities are the main source of long term financing. They consist of shares and debentures issued by government or any company, which may or may not be redeemable with interest in the future.

i) Income Statement

It is a statement, which presents the summary of revenue expenses and net income or net loss of a firm at a given period of time. Thus, it serves as a measure of firm's profitability. Revenues are amounts, which the customers pay to the firm for providing them goods and services. The firm uses economic resources in providing goods and services to customers. The costs of economic resources are called expenses. Net income is the amount by which revenues earned during a period exceeds expenses incurred during that period.

j) Retained Earning

It represents total undistributed earnings. It is that portion of firm's earnings, which is kept for future use and contingencies. It is also an internal source of financing.

k) Liability

Liabilities are debts payable in future by the firm to its creditors. They represent economic obligations to pay cash or provide goods or services in some future period. Generally, borrowing money or purchasing goods or services on credit creates liabilities. Examples of liabilities are creditors, bills payable, wages and salaries payable, taxes payable etc.

l) Off- Balance Sheet Transaction

Off-Balance sheet transactions are future agreements concerning bills purchase, letter of credit, guarantees and forward contracts. They are also treated as contingent liabilities.

m) Standard Deviation

Standard Deviation is the positive square root of the mean of the deviations taken from the arithmetic mean, which measures the variability of a set of observations. It is denoted by '6' and measures risk.

n) Variance

The square of standard deviation is called variance. It is generally denoted by '6^2'. It is one of the statistical tools used in the analysis of data for this study.

p) Coefficient of Variation

Co-efficient of variation (C.V.) is the proportion of standard deviation with mean multiplied by 100 Mathematically,

$$\text{C. V.} = \frac{\delta}{\bar{x}} \times 100\%$$

r) Mean

A mean is the average value or sum of all the observation divided by the numbers of observation. It is denoted by $\bar{x}$. Mathematically,

$$\bar{x} = \frac{\Sigma x}{N}$$

s) Correlation

Correlation is a statistical tool, which represents the relationship between two variables. Under correlation analysis two variables are correlated if a change in one variable result in a corresponding change in the other. It does not however explain the

causes and effects of the change in variables. It is of two types positive correlation and negative correlation.

t) Ratio Analysis

The relationship between two accounting figures, expressed mathematically, is known as ratio. Ratios help to summarize the large quantities of financial data and to make qualitative judgment about the firm's financial performance. In financial analysis, a ratio is used as a benchmark for evaluating the financial position and performance of a firm.

In the study on investment policy the following ratios of selected firms are calculated and analyzed.

a) Liquidity ratio b) Asset Management ratio
c) Profitability ratio d) Growth Ratio e) Risk ratios

u) Loan and advances

Earnings from loan and advances occupy a major space in income statement of the bank. Loans from commercial banks are secured against the assets of the borrower.

2.2 Review of Related Studies

2.2.1 Review of Journal/Article

Under this heading some related articles published in different books, economic journals, World Bank Bulletin, magazines, newspaper have been examined and reviewed.

Shiba Raj Shrestha in his article "Portfolio Management in commercial Bank, Theory and practice" (Shrestha;2055B.S:13) has emphasized that portfolio management is essential for individual and institutional investors. Though in the case of small investor as they are not left with much of an option it may be limited to small savings, but for large investors, diversification through investment in mutual funds,

shares, debentures should be practiced as any rational investor would seek to derive the maximum return on investment although assuming some risk at the same time. A best mix of investment assets fulfilling the under mentioned aspects are preferred by prudent (large) investors. They are:

a) Higher return which is comparable with alternative opportunities available not undermining the risk taking capability of the investor.
b) Adequate liquidity with sufficient safety and profitability of investment.
c) Maximum tax concessions.
d) Certain capital gain and flexibility of investment.
e) Economic, efficient and effective mix of investment etc.

With these in view, the following strategies needs to be adopted:

1) To have a portfolio of different securities and not just holding a single security.
2) Don't put all the eggs in the same basket. (For instance don't invest in a single company or single sector). Diversification of investment should be practiced for adequate safety, liquidity and profitability.
3) Choose such a portfolio of securities, which ensures maximum return with low degree of risk and uncertainty.

Shrestha has put forward the following approach to be adopted for designing & managing good portfolio.

a) Search investment assets (generally securities), which have scope for better returns, depending upon individual characteristics like age, health, need deposition, liquidity and tax liability etc.
b) To identify variety of securities for investment to reduce volatility of returns and risk.
c) To develop alternative investment strategies for selecting a better portfolio which will ensure a trade off between risk

and return so as to attain the primary objective of wealth maximization at lowest risk.

d) To find out the risk of the securities depending upon the attitude of investor towards risk.

Shrestha has also recommended that banks in order to succeed in portfolio management should have skilled manpower, research and analysis team, and proper management information system. He has suggested that the banks having international network can also offer access to global financial markets.

He has also stressed that:

1) The survival of every bank depends upon its own financial health and various activities.
2) In order to develop and expand the portfolio management activities successfully the investment management methodology of a portfolio manager should reflect high standard and give their clients the benefits of global strength, local insights and prudent philosophy.
3) The Nepalese banks having greater network and access to national and international capital market have to go for portfolio management activities for the increment of their fee based income as well as to enrich their fund based income and to contribute to the national economy.

Bodhi R. Bajracharya in his article "Monetary Policy and Deposit Mobilization in Nepal" (Bajracharya;1991:93) writes "Mobilization of domestic savings is one of the prime objectives of the monetary policy in Nepal and for this purpose, commercial banks stood as the active and vital financial intermediary for generating resources in the form of deposit of the private sector and providing credit to the investors in different aspects of the economy.

Dr. Sunity Shrestha in her article " Lending operation of commercial banks of Nepal and its impact on G.D.P." (Shrestha;1997:23) has presented an objective to make an analysis of contribution of

commercial banks lending to the G.D.P. of Nepal. She has set hypothesis that there has been positive impact of commercial bank lending to the G.D.P. in research methodology she has considered G.D.P as the dependent variable and various sectors of lending viz. Agriculture, Industrial, Commercial service, general and social sectors as independent variables. A multiple regression technique has been applied to analyze the contribution. The multiple analyses have shown that all the variables except service sector lending have positive impact on G.D.P. While concluding, she has accepted the hypothesis i.e., there has been positive impact by the lending of commercial banks in various sectors of economy except service sector economy.

Mr. Ramesh Lal Shrestha in his article "A study on deposits and credits of commercial bank in Nepal" (Ramesh Lal Shrestha) concluded that the credit deposit ratio would be 51.30% other things remaining the same in Nepal, which was the lowest under the period of review. He strongly recommended that the commercial banks should try to give more emphasis on entering new field as far as possible, otherwise they might not be able to absorb even the total expense.

Mr. Bhaskar Sharma in his article "Banking the future on competition (Sharma;2000:13) has highlighted that majority of commercial banks are being established and have operation in urban areas only. They have shown no interest to open branches in rural areas. The branches of NBL and RBB are only running in those sectors. The commercial banks are charging higher interest rate on lending, they are offered maximum tax concession, they do not property analyze the credit system.

According to him "Due to lack of investment avenues, banks are tempted to invest without proper credit approval and on personal guarantee, whose negative side effects would show true colors only after four or five years" He has further added that private banks have mushroomed only in urban areas where large volume of banking transaction and activities are possible.

Mr. Shekhar Bahadur Pradhan in his article "Deposit mobilization its problem and prospects" (Pradhan;1996:9) points out that deposit in the lifeblood of every financial institution. The latest financial/accounting figures of most bank and financial companies produce a strong feeling that serious review must be made with regards to problem and prospect of deposit sectors. Leaving a few joint venture banks other organization rely heavily on the business deposit and credit disbursement.

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

1) Most Nepalese people do not go for institutional savings due to lack of adequate knowledge. They are much used to savings in the form of cash and ornaments. Their half heartedness to deal with institutional system is governed by the lower level of understanding about financial organization process, withdrawal system, availability of deposit facilities and so on.
2) Unavailability of institutional services in rural areas.
3) Due to lesser office hours of banking system, people prefer holding cash in their personal possession.
4) Improper mobilization and improvement of the employment of deposits towards various sectors.

For proper deposit mobilization, he has recommended the following:

1) Provide sufficient institutional services in the rural areas.
2) Cultivate the habit of using rural banking unit.
3) Add service hours to the bank.
4) NRB should organize training programs to develop skilled manpower.
5) Spreading co-operatives to rural areas to develop mini-branch service.

Mr. Bhagat Bista in his research paper "Nepalma Adhunik Banking Byabastha" (Bista;2048) has made an attempt to highlight some of the

important indicators, which have contributed to the efficiency and performance of joint venture banks. He writes that the establishment of JVB's a decade ago marks the beginning of modern banking era in Nepal. The JVB's have brought in many new banking techniques such as computerized hypothecation, consortium finance and modern fee based activities into the economy. This is indeed a significant milestone in the financial development process of the economy.

2.2.2 Review of Related Studies

In the context of Nepal, a few researchers have published their articles with regards to Investment policy. More research in the field of investment policy in commercial banks and financial institutions is the need of the hour.

Dr. Govinda Bahadur Thapa in his research paper "Financial system of Nepal" (Thapa;1994) holds the view that the commercial banks including joint venture banks are performing pretty well in the area of deposits mobilization. Loans and advance of these banks are also increasing. In comparison to the credit needs of the newly emerging industries, the banks still seem to lack adequate funds. The banks are increasing their lending to non-traditional sectors along with the traditional sectors.

NBL and RBB are operating under nominal profit, have negative net worth, with profits turning negative from time to time owing to non-recovery of interest. The margin between interest income and interest expense is decreasing. In traditional off balance sheet operations, these banks have not been able to increase their income from commissions and discounts. To add to the crisis, these banks have to bear a heavy burden of personal and administrative overheads. At the same time due to accumulated overdue and defaulting loans, profitability of these banks has been seriously affected.

Dr. Thapa also points out that the foreign JVB's have been functioning in an extremely efficient manner. They are enjoying huge profits year after year and have been distributing large amount of bonus

and dividends to its employees and shareholders. Through effective persuasion for loan recovery even due and defaulting loans have been limited resulting in high margins between interest income and interest expenses. Similarly concentration of these banks to modern off balance sheet operations and efficient human resource management has added to the maximization of their profits.

He concludes by saying that due to the very nature of public sector the domestic banks could not compete with the private sector banks. The only remedy for such banks is to hand over the ownership as well as the management of these banks to the private hands.

Dr. Radhe S Pradhan has conducted his research on "Financial management and practices in Nepal"(Pradhan;1994). The survey mainly dealt with the financial functions, sources and types of financing, financing decisions involving debt, effect of change in taxes on capital structure, financial distress, dealing with banks and dividend policy.

The major findings of the study concerned with financial management are given as:

1) Bank borrowing and retained earnings are the two most widely used financing sources.
2) The enterprises have a definite performance for bank loans at a lower level of debt.
3) Most enterprises do not borrow from one bank only and they do switch between banks, which ever offer best interest rates.
4) Most enterprises find that banks are flexible in interest rates and convenience.
5) Generally, there is no definite time to borrow the issue stocks, that is majority of respondents are unable to predict when the interest rate will be lower or will go up. They are unable to predict when the stock will go up or down.

2.2.3 Review of Thesis

Prior to this, several thesis works has been attempted by previous students regarding various aspects of commercial banks like financial performance, lending policy, investment policy, resource mobilization, capital structure etc. Among them some research those that were found relevant for this study are presented below:

Raja Ram Khadka (1998) in his thesis work entitled "A study on the Investment Policy of Nepal Arab Bank Ltd in comparison to other joint venture banks of Nepal" has tried to examine and interpret the investment policies adopted by NABIL and other joint venture banks of Nepal.

The objectives of the research were:

a) To evaluate the liquidity, asset management, efficiency and profitability position.
b) To discuss fund mobilization and investment policy of NABIL with respect to its fee based off-balance sheet transaction in comparison to other JVB's.
c) To evaluate the growth ratios of loan and advances and total investment with respective growth rate of total deposits and net profit of other JVB's.
d) To find out the relationship between deposit and total investment, deposit and loan and advances and net profit and outside assets of NABIL comparison to other JVB's.
e) To evaluate the trends of deposit utilization and its projection for next five years of NABIL compared to other JVB's.

His major findings were:

a) The liquidity position of NABIL is comparatively worse than other JVB's. NABIL has utilized more portions of current assets as loan and advances and lesser portions in government securities.

b) The profitability position of NABIL is comparatively better then that of other JVB's.
c) There is significant relationship between deposit and loan and advances as well as outside assets and net profit where as there is no significant relationship between deposit and total investment in case of other JVB's.
d) The trend values of loan and advances to total deposit of NABIL and other JVB's are in increasing trend. The trend value of total investment to total deposit of NABIL and other JVB's are in increasing trend.
e) NABIL is seen to be more successful in increasing its sources of fund for deposit mobilization and granting loan and advances and maintain a good investment but it has failed to maintain its high growth rate of profit in comparisons with other JVB's.

Upendra Tuladhar (2000) has conducted a thesis research on " A study of investment policy of Nepal Grindlays Bank Limited in comparison to other JVB'S of Nepal".

The basic objectives of this study were:

a) To study the fund mobilization and investment policy with respect to fee based off-balance sheet transaction and fund based on balance sheet activities.
b) To evaluate the liquidity, efficiency, assets management and profitability position.
c) To evaluate the growth ratios of loan & advances and total investment with respective growth rate of total deposit and net profit.
d) To evaluate the trends of deposit utilization towards total investment and loan advances and its projection for next five years.
e) To perform an empirical study of the customer's views and ideas regarding the existing service and adopted investment policy of the joint venture banks.

f) To provide suggestions and recommendation on the basis of this study.

His major findings were:

a) NGBL has maintained adequate liquidity than other JVB's. It is in a better position to meet current obligation.
b) NGBL has successfully maintained and managed its assets towards different income generating activities.
c) The profitability position of NGBL is higher than other JVB's.
d) NGBL has invested higher portion of total working fund in government securities than other JVB's. NGBL's loans and advance to total deposit ratio is less than other JVB's.
e) NGBL has the largest profit margin in comparison with other JVB's.

Samiksha Thapa (2001) has conducted a thesis research on "A comparative study on investment policy of Nepal Bangladesh Bank and other JVB's (NABIL Bank Limited and Nepal Grindlays Bank Limited)"

The research study were based on the following specific objectives:

a) To evaluate the liquidity, assets management efficiency, profitability and risk position of NBBL in comparison to NABIL and NGBL.
b) To analyze the relationship between loan and advances and total investment with other financial variables of NBBL and compare them with NABIL & NGBL.
c) To examine the fund mobilization and investment policy of NBBL through off-balance sheet and on balance sheet activities in comparison to the other two banks.
d) To study the various risks in investment of NBBL in comparison to NABIL & NGBL
e) To analyze the deposit utilization trend and its projection for next five years of NB Bank and compare it with that of NABIL & NGBL.

The major findings of the study were as follows:

a) NBBL has good deposit collection, enough liquidity, it has sanctioned enough loan and advances, but it has made negligible amount of investment in government securities.
b) NBBL is in a weak position regarding its on balance as well as off balance sheet activities.
c) Profitability position of NBBL is comparatively worse than that the NABIL & NGBL.
d) The credit risk ratio, interest risk ratio, capital risk ratio of NBBL is higher than NGBL & NABIL. It is exposed to more risk.
e) NBBL has been successful in increasing its sources of funds and its mobilization. The growth ratio of total investment of NBBL is comparatively worse than the other two JVB's.
f) There is significant relationship between deposit and loan and advance, outside assets and net profit of NBBL but there is no significant relationship between deposit and investment of NBBL.
g) The position of NBBL in regard to utilization of fund to earn profit is not better in comparison to NABIL & NGBL.
h) The cost of fund of NBBL is competitively higher than NABIL & NGBL.

Indra Bahadur Bohara (2002) has conducted a research entitled "A comparative study on Investment policy of Joint Venture Banks and Finance Companies of Nepal".

The objectives of the study were as follows:

a) To find out the liquidity position and profitability position of above mentioned JVB's in comparison with finance companies.
b) To find out the relationship between profitability and asset structure.

c) To analyze the deposit utilization trend and its future projections for next five years for JVB's and finance companies.
d) To study the various risks in investment of JVB'S in comparison with finance companies.
e) To analyze the relationship between deposits and investment, deposits and loan & advances, net profit and total assets of JVB'S in comparison with finance companies.
f) To provide suggestion and recommendation on the basis of findings.

The major findings of the study were as follows:

1) Liquidity position of JVB's is comparatively better than that of finance companies. Finance companies have made nominal amount of investment in government securities.
2) Finance companies have mobilized their deposits smoothly in comparison with JVB's. The average loan and advance to total deposit ratios of finance companies is higher than JVB's.
3) Profitability position of JVB's except for BOKL is better than that of finance companies, but profitability position of finance companies in terms of return on total assets is better. Interest income in relation to proportion of total assets and operating income is higher in finance companies in comparison to JVB's.
4) The growth ratios of deposits, net profit, loan and advances are higher than that of JVB's and are increasing every year, which indicates good performance of the finance companies.
5) The risk ratios of finance companies are less variable than the JVB's. The interest risk ratios of finance companies is higher where as the capital risk ratios of JVB'S are comparatively higher than that of finance companies.
6) JVB'S are in a better position in mobilizing deposits as loan and advances, but so far finance companies have been successful in utilizing their sources of funds and in their mobilization.

Jyoti Thapa (2002) has conducted a research entitled "Investment Policy of Commercial banks in Nepal.

The objectives of the study were:

a) To discuss fund mobilization and investment policy of EBL in respect to its fee based off-balance sheet transaction and fund based on balance sheet transaction of NABIL and BOKL.
b) To evaluate the liquidity, efficiency, profitability and risk position.
c) To evaluate the growth ratios of loans and advances and total investment with other financial variables.
d) To analyze the trends of deposits utilization towards total investment and loan and advances and its projection for next five years.
e) To conduct hypothetical test to find out whether there is significant difference between the important ratios of EBL, NABIL & BOKL.
f) To provide packages of workable suggestions and possible guidelines to improve investment policy of EBL and other banks.

His major findings are enumerated below:

a) EBL is comparatively better than NABIL and BOKL in terms of liquidity.
b) EBL has been less successful than NABIL and BOKL in its on balance sheet operation as well as off balance sheet activities.
c) The profitability position of EBL is worse than NABIL and BOKL.
d) EBL is exposed to more credit risk and capital risk, but lower interest rate risk than NABIL and BOKL.
e) EBL has maintained high growth rates in total deposit, loan and advances but it has moderate position in investment.

g) There is significant relationship between deposit and loan and advances and outside assets and net profit of EBL.

Dina Shrestha (2003) has conducted a research entitled "Investment Analysis of Commercial Banks" (A Comparative Study of Nepal Bank Limited and Nepal State Bank of India Limited).

The objectives of the study were:

a) To analyze percentage of investment made by HBL and NSBIL in total investment made by commercial banks.
b) To analyze investment trend, deposits trend and total income and their projection for next five years of HBL and compare then with that of NSBIL.
c) To identify investment sector of HBL and NSBIL.
d) To evaluate the liquidity, assets management efficiency, profitability and risk position of HBL in comparison to that of NSBIL.
e) To study the relationship between investment and deposits of bank.

The major findings of the study were as follows:

a) Percentage of HBL's investment to total commercial banks inv estment in extremely higher than NSBIL.
b) Both HBL and NSBIL have invested mostly on government securities but HBL has invested in NRB bonds also as well as in other productive sectors.
c) NSBIL is better than HBL from liquidity point of view.
d) HBL has higher profitability position than NSBIL.
e) HBL is exposed to more risk than NSBIL.
f) HBL has maintained higher growth rate in net profit in comparison to NSBIL.

Dilip Roy (2003) has conducted a research entitled "An Investment Analysis of RBB in comparison with NBL".

The specific objectives of the study were.

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

The major findings of the study were:

a) RBB has good deposit collection, enough loan and advance and investment in government securities. It has comparatively better liquidity position than NBL.
b) RBB is in comparatively better position regarding issue of loan and advance but it does not have good position regarding investment in shares and debentures of other companies, off balance sheet operation. Loan Loss ratio shows low quality of loan and advance.
c) The profitability position of RBB is worse. RBB needs to take immediate steps to increase its profitability.
d) RBB's fund collection and fund mobilization is satisfactory in comparison to NBL.
e) There is significant relationship between deposit and loan and advance. There is insignificant relationship between deposit and investment, and outside assets and net profit.

Kalpana Khaniya (Banjade) (2003) has conducted a thesis research entitled "Investment portfolio Analysis of JVB's".

The specific objectives of the study were:

a) To analyze the risk and return ratios of commercial banks.
b) To evaluate the financial performance of JVB's.
c) To provide suggestion package based on the analysis of data.
d) To study existing investment policies taken by NABIL in various sectors.
e) To study portfolio structure of NABIL in investment as compared to other JVB's.
f) Preference given by NABIL for investment between,
   - Loan Investment.
   - Investment in real fixed assets.
   - Investment in financial assets.

The main findings of the study were:

a) SCBNL has the highest return on shareholders fund and total assets. It has also been successful in mobilizing its deposits as investments. NABIL and EBL have invested high amounts of deposits as loan and advances in comparison to SCBNL, NABIL and HBL.
b) Among the JVB's, looking at the investment portfolio, EBL has investment highest amount of funds in government securities, NBB has invested highest amount of funds on shares and debentures and NABIL has invested highest amount of funds in NRB bonds in comparison to other JVB's.
c) SCBNL has the highest EPS and EBL the lowest EPS among the JVB's.

Rabindra Joshi (2003) in his thesis entitled "A comparative study of Investment policy of SCBNL & EBL" has made an endeavor to examine and interpret the Investment policy adopted by SCBNL in comparison to EBL.

The objectives of the research were:

1) To compare the investment policy of concerned banks and discuss the fund mobilization of the sample banks.

2) To find out empirical relationship between total investment, deposit & loan & advance and net profit and outside assets and compare them.
3) To analyze the deposit utilization & projection for next five years of SCBNL and EBL.
4) To evaluate comparatively the profitability & risk position liquidity asset management efficiency of SCBNL & EBL.
5) To provide a package of possible guidelines to improve investment policy, its problems and way to solve some problems and provide suggestions and recommendation on the basis of the study.

The main findings of the study were as follows:

1) Both the banks have good deposit collection. EBL has higher but fluctuating liquidity position. It is in a good position to meet daily cash requirement and current obligation.
2) SCBNL has successfully maintained and managed its assets towards different income generating activities. SCBNL has invested high portion of total working fund in government securities and share and debentures of other companies.
3) The profitability position of SCBNL is comparatively better than EBL.
4) The liquidity risk ratio, credit risk ratio of SCBNL is lower than that of EBL.
5) SCBNL has not been successful to increase its sources of funds and its mobilization i.e., loans and advances and total investment.

Tanka Kumar Raya (2003) has conducted a thesis research entitled "Investment Policy and Analysis of commercial Banks in Nepal (A comparative study of SCBNL with NIBL & NBBL)

The following objectives were considered in the study:

a) To discuss fund mobilization and investment policy of SCBNL in respect to its fee based off balance sheet transaction with NIBL & NBBL.
b) To evaluate the liquidity, efficiency, profitability and risk position of the sample banks.
c) To evaluate the growth ratios of loan and advances, total investment with other financial variables.
d) To analyze the trends of deposit utilization towards total investment and loan and advances and its projection for next five years.
e) To find out whether there is significant difference between the various important ratios of SCBNL with the ratios of NIBL and NBBL.
f) To provide package of workable suggestions & possible guidelines to improve investment policy of the sample banks.

The findings of the study were:

a) SCBNL has good deposit collection, has made enough investment in government securities, but has provided less advances and loans to total deposits ratio.
b) SCBNL has been successful in its on balance sheet operations but NIBL and NBBL have been more successful in off balance sheet operations.
c) The profitability position of SCBNL is higher than the other JVB's in the sample.
d) The credit risk ratio, capital risk ratio of SCBNL is lower than NIBL & NBBL.
e) SCBNL has maintained higher growth in investment and net profit and moderate growth in loans and advances, and deposits.
f) There is significant relationship between deposits and loans and advances and between outside asset and net profit of SCBNL.

Rajesh Dhital has conducted a thesis research on "A comparative study on Investment policy of SCBNL and BOKL".

The major objectives of the research were:

a) To find out relationship between total investment, deposits, loan and advances, net profit and outside asset and compare them.
b) To compare investment policies of concerned banks and discuss the fund mobilization of sample banks.
c) To analyze the risk position of SCBNL & BOKL.
d) To analyze the deposit utilization trend and its projection for five years of SCBNL & BOKL.
e) To provide package of a workable suggestion & possible guidelines to improve investment policy, its problems and way to solve some problems and provide suggestion and recommendation on the basis of the study.

The major findings of the study were:

a) SCBNL has better liquidity position than BOKL, but BOKL is in a better position to meet daily cash requirement. SCBNL has invested more in government securities than BOKL. SCBNL has utilized lesser portion of deposits and current assets as loans & advances.
b) SCBNL has invested a high portion of total working fund in government securities and shares & debentures of other companies.
c) The profitability position of SCBNL is better than BOKL.
d) SCBNL has lower liquidity risk, and credit risk than BOKL.
e) The growth rate of deposits and loans and advances of SCBNL is less than that of BOKL, but SCBNL has witnessed high growth in investment and net profit over the period of study in comparison to BOKL.
f) There is a significant relationship between deposit and loan and advances, deposit and total investment, deposit and interest earned, total working fund and net profit for both the banks. There is also a significant relationship between outside asset and net profit deposit and net profit, total

working fund and net profit for SCBNL, but the same are not significant in the case of BOKL.

Dipak Pandit (2004) has conducted a research entitled "Investment policy Analysis of Joint Venture Bank (with special reference to NSBIL & EBL)"

The objectives of the study were as follows:

a) To evaluate the liquidity management, assets management efficiency, profitability position, risk position and investment practices of NSBIL, BOKL & EBL)
b) To find out the relationship between deposit and total investment, deposit and loan and advance, and net profit and outside asset.

His major findings are enumerated below:

a) NSBIL has better liquidity position. It is in a good position to meet its daily cash requirement and current obligation. Liquidity position of EBL & BOKL have not been satisfactory.
b) NSBIL's loan and advance to total deposit ratio is lower than EBL & BOKL. It does not seem to follow any definite policy regarding the management of its assets.
c) The profitability position of all the banks is not satisfactory. The banks have not adopted sound investment policy in utilizing their surplus funds.
d) BOKL & EBL are exposed to high credit risk and capital risk.
e) NSBIL & BOKL have not been successful to increase their sources of fund. EBL has been successful in maintaining its higher growth rate of total deposit.
f) There is significant relationship between deposits and total investment of BOKL & EBL but the same is not significant in case of NSBIL.

Commercial banks have huge deposit collection. These deposits need to be properly utilized. Effective utilization of collected fund is

possible only through implementation of sound investment policy. NABIL and SCBNL are the best examples of JVB's in Nepal that have been able to mobilize the funds in an effective manner and achieved phenomenal growth and profit year after year by formulating and implementing sound investment policy.

Most research studies conducted prior to this study involving comparative analysis comprised of a successful bank and an emerging bank as samples. It was obvious that the successful bank with sound financial health would excel in various aspects of banking. The possibility of the samples showing different result during data analysis was high. The financial and empirical analysis to data revealed higher degree of consistency in case of successful bank and less uniformity in case of emerging bank.

This study comprises of two of the most successful JVB's as sample viz NABIL and SCBNL. This study is also different from previous studies in view of the time period its covers. During this period the country has witnessed political uncertainty, deteriorating security situation that have rendered the economy further sluggish. There has been a restructuring in the banking business. This study gives a new dimension to the research topic in the sense that it has adhered to most of the fresh guidelines and directives issued by NRB to commercial banks, which previous studies lack. This study aims at providing a more realistic picture to various financial aspects of the sample banks. In line with fresh guidelines and NRB directives and practices adopted by banks, some items of the balance sheet that were previously booked under one heading have now been accounted under a different heading. For instance, leasehold improvements or deferred expenditure that were previously a part of current assets have been accounted for under fixed assets as they are amortized over the period of lease. Similarly, staff loan and advances previously part of Loan Advances and Bills purchase have been booked under other assets, checks presented for clearing have been booked under other assets. Gratuity is expensed of on accrual basis and is now a part of personnel expense. Previously, it was the practice of banks to include it under current liabilities and appropriate it from profit and loss Account.

This study will reveal the strength and weaknesses of the sample bank and serve as a valuable input in decision-making process of the concerned banks and other emerging banks in formulating appropriate investment policy.

CHAPTER – III
RESEARCH METHODOLOGY

3. Introduction

Research methodology is a way to systematically solve the research problem. It refers to the various sequential steps that are to be adopted by a researcher during the course of studying the problem with certain objectives. This chapter refers to the overall research method from the theoretical aspects to the collection and analysis of data. This study covers quantitative methodology in a greater extent and also uses the descriptive part based on both technical aspects and logical aspect. This research tries to perform a well-designed quantative and qualitative research in a very clear and direct way using both financial and statistical tools. Detail research methods are described in the following headings:

3.1 Research Design

This study depends on the secondary data. It includes all the process of collecting, verifying and evaluating of past evidence systematically and objectively to reach final conclusion. Some statistical and accounting tools have been adopted to examine factors in this study. In this study descriptive and analytical research design has been done.

3.2 Populations and Sample

There are all together 25 commercial banks listed in Nepal Stock Exchange. Sample are taken from this population, which are as follows:

Nabil Bank Ltd (NABIL)

Standard Chartered Bank Nepal Ltd. (SCBNL)
Nepal Investment Bank Ltd. (NIBL)
Himalayan Bank Ltd (HBL)
Nepal SBI Bank Ltd (NSBIL)
Bank of Kathmandu Ltd (BOKL)
Everest Bank Ltd (EBL)
Nepal Credit & Commerce Bank Ltd. (NCC)
Nepal Industrial and Commercial Bank Ltd. (NIC)
Machhapuchhre Bank Ltd. (MBL)
Kumari Bank Ltd (KBL)
Lumbini Bank Ltd. (LBL)
Laxmi Bank Ltd. (LXBL)
Siddhartha Bank Limited (SBL)

Among them, only two joint venture banks viz NABIL, SCBNL have taken into account for research proposes as samples in this research study to compare their investment policy. They are two of the best performing JVB's in Nepal. Their profit per share, percentage of dividend paid per equity capital, net profits are among the highest in commercial banks. They are equipped with research and analysis team, proper MIS, sufficient capital and skilled manpower. They also have access to Global financial markets. These factors put them in the best position, i.e. it gives them an edge over other banks. They are best suited to exploit the opportunities that are existent. They can easily redress problem faced by other and can also avoid risks by formulating and implementing sound investment policy.

3.3 Source of Data

This study is mainly based on secondary data. The secondary sources of data collections are Balance Sheet, P& L Account of concerned banks, Nepal Stock exchange's NEPSE report. Other relating data are obtained directly from authorized persons of concerned banks, regulating authorities i.e. Ministry of Finance, NRB Budget speech, published books, banks bulletin, Newspapers, previous studies, central library T.U., Himalayan White House International College library, Securities

exchange Board etc. The data are prerequisites for any project study. The data collection entails labor and time and it is the most necessary step in project study without which the study cannot be done.

3.4 Data Analysis Tools

Analysis and presentation of the data is the core of project study. This study needs some financial and statistical tools to accomplish the objectives of this study. The data extracted from financial, statistical and accounting tools have been used. These results are then compared with each other to interpret the results. Two kinds of tools have been used to achieve the purpose, namely:

1) Financial tools and
2) Statistical tools

3.4.1 Financial tools

Financial tools basically helps to analyze the strength and weakness of a firm. Ratio analysis being one of the important financial tools has been used in this study. In financial analysis a ratio is used as a benchmark for evaluating the financial position and performance of a firm. Ratios help to summarize the large quantities of financial data and to make qualitative judgment about the firm's performance. The point to note is that a ratio indicates a quantitative relationship, which can be used to make a qualitative judgment. There are several ratios involved in analyzing and interpreting the financial statement. In this study, basically four types of ratios have been used which are related to Investment policy of banks. They are as follows:

A) Liquidity Ratio

Liquidity Ratio measures the firm's ability to meet its current obligation. Commercial banks collect fund from the community with a commitment to return depositor's fund, facilitate withdrawal on demand. A firm should ensure that it does not suffer from lack of liquidity and

also that it does not have excess liquidity. It is necessary to strike a proper balance between high liquidity and lack of liquidity. The following ratios are evaluated under liquidity ratio:

i) Current Ratio

The current ratio is calculated by dividing current assets by current liabilities:

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

The current ratio is a measure of the firm's short-term solvency. It also shows the relationship between CA and CL of a firm. Current assets include cash and those assets which can be converted into cash within a year such as money at call or short notice, loans and advances, overdrafts, bills purchased and discounted, Investment in government securities, prepaid expenses, and other interest receivables and miscellaneous current assets. In this research study, leasehold improvement (deferred expenditure) as they are amortized over the period of lease has been included in fixed assets.

All obligation maturing within a year are included in current liabilities such as deposit and other accounts, short term loans, outstanding or accrued expenses, bills payable, tax liability, staff bonus, dividend payable, long term debt maturing in current year and miscellaneous current liabilities. As a conventional rule a current ratio of 2:1 is considered satisfactory. A current ratio is a crude and quick measure of the firm's liquidity.

ii) Cash and Bank Balance to Total Deposit Ratio

They are the most liquid of current assets to pay off depositors immediately. This ratio is calculated by dividing cash and bank balance by total deposits. In order to bring about consistency in this research, checks for clearing have been excluded from cash and bank balance and included in other assets. Mathematically,

$$\text{Cash \& Bank Balance to Total Deposit Ratio} = \frac{\text{Cash \& Bank Balance}}{\text{Total Deposit}}$$

Cash and bank balance includes cash in local currency & foreign currency on hand or with banks. The total deposits consists of deposits in current account, savings account, fixed deposit account, money at call deposits, margin deposits etc. A higher ratio indicates greater ability of banks to meet their deposits and vice-versa.

iii) Cash and Bank Balance to Current Assets Ratio

This ratio measures the percentage of liquid assets i.e. cash and bank balance in the current assets of the firm. Higher ratio shows greater capacity of firms to meet cash demand. The ratio is calculated by dividing cash and bank balance by current assets. Mathematically,

$$\text{Cash \& Bank Balance to Current Assets Ratio} = \frac{\text{Cash \& Bank Balance}}{\text{Current Assets}}$$

iv) Investment in Government Securities to Current Assets Ratio

This ratio is used to find the percentage of current assets invested in government securities, i.e. treasury bills, development bonds etc. Commercial banks are interested to invest some portion of their collected fund in government securities as they are risk-free and can easily sold in the market. Mathematically,

$$\text{Investment in Government Securities to current Asset Ratio} = \frac{\text{Total Investment in Government Securities}}{\text{Current Assets}}$$

v) Loan and Advances to Current Assets Ratio

The major portion of a bank's asset side of the balance sheet includes loan and advances. Loan and advance comprise of loan and advance, credit overdraft, bills purchased and discounted. In

this research study, staff loan and advances have been treated as other assets to maintain status quo with the practice followed by banks.

It shows the percentage of total loan and advances to current assets. Mathematically ,

$$\textit{Loan and Advances to Current Asset Ratio} = \frac{\textit{Total Loan and Advances}}{\textit{Current Assets}}$$

B) Asset Management Ratios (Activity ratio)

In order to satisfy its customers, earn profit and for its own survival a commercial bank must be well versed in managing its assets. Activity ratios are employed to evaluate the efficiency with which the firm manages and utilizes its assets. In this study, it is used to measure the bank's ability to utilize their available resources. The following ratios related to investment policy are calculated under asset management ratio.

i) Loan and Advances to Total Deposit Ratio

This ratio is calculated to find out how successfully the selected banks are utilizing their total deposits on loan and advances to generate profits. A higher ratio is indicative of better utilization of total deposits, but the same might not hold true from liquidity point of view. It is computed by dividing total loan and advances by total deposits. Mathematically,

$$\textit{Loan and Advance to Total Deposits Ratio} = \frac{\textit{Loan and Advance}}{\textit{Total Deposits}}$$

ii) Loan and Advances to Total Working Fund Ratio

The major portion of a banks asset side of the sheet includes loan and advances. It is also the major component of the total working fund. This ratio shows the ability of a bank to channelize

its assets in the form of loan and advances to earn higher profits. A high ratio indicates better mobilization of fund as loan and advances and vice-versa. Mathematically,

$$\text{Loan and Advance to Total Working Fund Ratio} = \frac{\text{Total Loan and Advance}}{\text{Total Working Fund}}$$

Where total working fund includes all assets of balance sheet items i.e. current assets, net fixed assets and other miscellaneous assets.

iii) Total Investment to Total Deposit Ratio

This ratio shows the utilization of firm's deposits on investment in government securities and purchasing shares and debentures of other companies. A high ratio is indicative of high success in mobilization of deposits in investments and vice-versa. This ratio can be calculated by dividing total investment by total deposits. Mathematically,

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

iv) Investment on Government Securities to Total Working Fund Ratio

This ratio shows the percentage of total working fund invested in government securities. In other words, this ratio measures the extent to which the banks have been successful in mobilizing their total working fund on different type of government securities. The logic behind Investment in government securities by banks is to diversify the risk by not putting all the eggs in the same basket. This is also beneficial in the sense that banks are assured of adequate liquidity. A high ratio indicates better mobilization of funds as Investment on government securities and vice-versa.

This ratio can be calculated by dividing total amount of investment in government securities by the total working fund. Mathematically,

$$\text{Investment in Government Securities} = \frac{\text{Investment in Govt. Securities}}{\text{Total Working Fund}}$$

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

This ratio shows the percentage of total working fund invested in purchasing shares and bonds & debentures of other companies. Investment on shares and debentures to total working fund measures the extent to which the banks have been successful in mobilizing their total assets on shares and debenture of other companies to generate income. A high ratio indicates portion of investment on shares and debentures out of total working fund and vice-versa. This ratio is calculated by dividing the total amount of Investment is shares & debenture of other companies by total working fund. Mathematically,

$$\text{Investment on Shares \& Debentures to Total Working Fund Ratio} = \frac{\text{Investment in Shares \& Debentures}}{\text{Total Working Fund}}$$

C) Profitability Ratio

The profitability ratios are calculated to measure the overall efficiency of a firm in terms of profit earning and performance. Profit is one of the major indicators of efficient performance of banks. One of the major objectives of banks is to earn profit, so profit is very crucial for the survival of banks. To meet various objectives like, maintaining good liquidity position, meet internal obligations, expansion of banking services, finance short- term government needs, commercial banks need to earn sufficient profit. A higher profit ratio shows higher efficiency of a bank.

The following ratios related to investment policy are calculated under profitability ratios:

i) Return on Loan and Advance Ratio

Return on loan and advances ratio indicates how efficiently the bank has utilized its resources in the form of loan and advances to generate good return. It measures the earning capacity of a commercial bank. This ratio is calculated by dividing net profit by loan and advances. Mathematically,

$$\text{Return on Loan \& Advances Ratio} = \frac{\text{Net Profit / Loss}}{\text{Total Loan and Advances}}$$

ii) Return on Total Assets

Return on total assets shows the overall profitability of working fund or total assets. Return on working fund ratio is a measuring rod of the profitability with respect to each financial resource investment of banks asset. If the banks total working fund is well managed and utilized efficiently, return on such assets will be higher and vice-versa. This ratio is calculated by dividing net profit by total working fund. It is calculated by dividing net profit by total assets. Mathematically,

$$\text{Return on Total Assets} = \frac{\text{Net Profit / Loss}}{\text{Total Working Fund}}$$

iii) Total Interest Earned to Total Working Fund Ratio

This ratio is calculated to find the percentage of interest earned to total assets. This ratio reflects the extent to which banks are successful in mobilizing their assets to generate high income. This ratio presents the earning capacity of a bank on its total working fund. Higher ratio indicates better performance or proper utilization of total assets in the form of interest earned on its working fund. This ratio is calculated by dividing total interest earned by total working fund. Mathematically,

$$\text{Total Interest Earned to Total Working Fund Ratio} = \frac{\text{Total Interest Earned}}{\text{Total Working Fund}}$$

iv) Total Interest Earned to Operating Income Ratio

This ratio is measured to find out the ratio of interest income with operating income of the bank. It shows how efficiently the banks have mobilized their resources in interest bearing assets i.e., loan and advances, investment in government securities. Total operating income includes interest income, commission fees & discount, dividend income, foreign exchange income etc. This ratio shows the magnitude of interest income in total income. It is calculated by dividing total interest earned by net operating income. Mathematically,

$$\textit{Total Interest Earned to Total Operating Income Ratio} = \frac{\textit{Total Interest Earned}}{\textit{Total Operating Income}}$$

v) Total Interest Earned to Total Outside Assets Ratio

This ratio is calculated to find the percentage of interest earned to total outside assets of the bank, which includes loan and advances, Investment on Government securities, Investment on share and debentures and all other types of investment. It is calculated by dividing total interest earned by total outside assets. A high ratio indicates high return on total assets and vice-versa. Mathematically,

$$\textit{Total Interest Earned to Outsides Assets} = \frac{\textit{Total Interest Earned}}{\textit{Total Outside Assets}}$$

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

This ratio measures the percentage of total interest expenses against total working fund. A high ratio is indicative of higher interest expenses on total working fund. This ratio is calculated by dividing by total interest paid by total working fund. Mathematically,

$$\textit{Total Interest Paid to Total Working Fund Ratio} = \frac{\textit{Total Interest Paid}}{\textit{Total Working Fund}}$$

D) Risk Ratio

Risk means uncertainty, variability of return, which is inherent in any investment portfolio of a business enterprise. Risk is an important element since investment with greater risk requires higher return than investments with lower risk. Risk ratios measures the degree of risk involved in various financial operations. The possibility of risk involved in bank's financial operations makes the bank investment a challenging task. As the notion goes," no risk no gain", therefore, if a bank expects high return on its investment it must be prepared to accept the risk and manage it efficiently.

The following risk ratios are used to analyze and interpret the financial data and investment policy.

i) Liquidity Risk Ratio

Liquidity risk of the bank defines its liquidity needs for deposit. Cash and bank balance are the most liquid of all the assets and are considered bank's liquidity sources. Deposits on the other hand refer to the liquidity needs of banks.

This ratio measures the risk associated with the liquid assets i.e., cash and bank balance that are kept to satisfy the cash demand of customers. A higher ratio shows that the banks has sufficient cash to meet its current obligations i.e. lower liquidity risk, but that may have an adverse impact on the profitability position of the bank. A trade off between liquidity and profitability must be maintained. This ratio is calculated by dividing cash and bank balance by total deposit. Mathematically,

$$\textit{Liquidity Risk Ratio} = \frac{\textit{Total Cash \& Bank Balance}}{\textit{Total Deposits}}$$

ii) Credit Risk Ratio

Normally, every credit is good at the time it is sanctioned. Most of the bank failures are due to shrinkage in the value of loan

and advances. Loan is a risky asset and risk of non-repayment of loan in known as credit risk or default risk. Credit risk ratio measures the possibility of loan going into default. While sanctioning loans banks measure credit risk involved in the project. Credit risk is calculated by dividing total loan and advances by total assets. Mathematically,

$$Credit\ Risk\ Ratio = \frac{Total\ Loan\ and\ Advances}{Total\ Assets}$$

E) Growth Ratio

The growth ratios represent how the commercial banks are maintaining their economic and financial condition. As a conventional rule, a higher ratio is preferable. A high ratio indicates better performance of the banks and vice-versa. The following growth ratios directly related to the fund-mobilization and investment of the banks are calculated:

I) Growth ratio of total deposit
II) Growth ratio of total investment
III) Growth ratio of loan and advances
IV) Growth ratio of net profit

3.4.2 Statistical Tools

Some important statistical tools have been used to present and analyze the data for achieving the objectives of this study. Co-efficient of variance, Co-efficient of correlation, standard deviation, least square, linear tend analysis etc. have been used for the purpose of investment policy analysis.

a) Karl Pearson's Correlation Co-efficient Analysis

This statistical tool interprets and identifies the relationship between two or more variables. It identifies whether two or more

variables are positively correlated or negatively correlated Statistical tool helps to analyze the relationship between these variables and aids the selected banks to prepare appropriate investment policy relating to deposit collection, fund utilization (loan and advances and investment) and profit maximization. This study attempts to find out relationship between the following variables:

i) Co-efficient of co-relation between deposit and loan and advances.
ii) Co-efficient of correlation between total deposit and total investment.
iii) Co-efficient of correlation between total outside assets and net profit.
iv) Co-efficient of correlation between deposits and net profit.
v) Co-efficient of correlation between deposits and interest earned.
vi) Co-efficient of correlation between loan and advances and interest paid.
vii) Co-efficient correlation between total working fund and net profit.

Karl Pearson's correlation coefficient (r) can be obtained by using the following formulae.

$$r = \frac{\sum xy}{\sqrt{\sum x^2 \sum y^2}}$$ Where $x = (x - \bar{x})$, $y = (y - \bar{y})$

Here, Σx = Sum of observation in series x

Σy = Sum of observation in series y

Σx^2 = Sum of squared observation in series x

Σy^2 = Sum of squared observation in series y

Σxy = Sum of the product of observation in series x & y.

The co-efficient of correlation (r) lies between –1 to +1, If r = +1 there exists a significant relationship between the two variables. If

r = -1, then the two variables are negatively correlated or there is no significant relationship between the two variables.

b) Trend Analysis:

Under this topic we analyze the trend of deposits, loan and advances, investments and net profit of NABIL and SCBNL from F/Y 2003/2004 to F/Y 2007/2008. It also aids in making forecasting for the next five years up to 2012/2013. The following trend value analysis has been used in this study.

i) Trend Analysis of total deposits.
ii) Trend Analysis of loan and advances.
iii) Trend Analysis of total investment.
iv) Trend analysis of net profit.

c) Standard Deviation (S.D)

The standard deviation measures the absolute dispersion. The lower the percentage of dispersion lower the standard deviation. The lower percentage of dispersion also projects a high degree of uniformity of the observations as well as homogeneity of the series. A large value of standard deviation suggests exactly the opposite. In this study standard deviation of different ratios are calculated. Mathematically,

$$\text{S.D} = \sqrt{\frac{\sum (x - \bar{x})^2}{n}}$$

d) Co-efficient of Variation (C.V.)

C.V. is the proportion of standard deviation with mean multiplied by 100. Mathematically,

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

e) Test of Hypothesis

Under this analysis, effect has been made to test the significance level regarding the parameters of the population on the basis of sample drawn from the population. This test has been conducted on the following:

i) Test of hypothesis on loan and advances to total deposit ratio of NABIL and SCBNL.
ii) Test of hypothesis on Investment in Government securities to current assets ratio of NABIL and SCBNL.
iii) Test of hypothesis of total investment to total deposit ratio of NABIL & SCBNL.
iv) Test of hypothesis of return on loan and advances ratio of NABIL & SCBNL.
v) Test of hypothesis on total interest earned to total outside assets of NABIL and SCBNL.

CHAPTER – IV
DATA PRESENTAION AND ANALYSIS

4.1 Data Presentaion and analysis

This is an analytical chapter, where the researcher has analyzed and evaluated those major financial items, which are mainly related to the investment management and fund mobilization. From the point of view of the fund mobilization and investment policy only those ratios are calculated and analyzed which are relevant and important for this study. The ratios are designed and calculated to highlight the relationship between financial items and figures. It is a kind of mathematical relationship and procedure dividing one item by another. All these calculations are based on financial statements of concerned banks. The important and required financial ratios, which are to be calculated for the purpose of this study, are computed and analyzed in the following paragraphs.

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4.2 Financial Tools

Financial analysis involves identifying the financial strength and weakness of the organization by presenting the relationship between items of the balance sheet. For the purpose of this study, ratio analysis has been mainly used for the analysis of data.

Various financial ratios related to investment management and fund mobilization, have been presented and discussed in order to evaluate and analyze the performance of two joint venture banks, namely NABIL and SCBNL. The ratios are designed and calculated to highlight the relationship between financial items and

figures. These calculations are based on financial statements of concerned JVB's. The financial ratios that are calculated for the purpose of this study are:

A : Liquidity ratio
B : Asset Management ratio
C : Profitability ratio
D : Risk ratio
E : Growth ratio

A) Liquidity Ratios

Liquidity ratios measure the firm's ability to meet its current obligation. The following ratios which measure the liquidity position of banks are calculated:

i) Current Ratio

This ratio is calculated by dividing current assets by current liabilities. (For detail see appendix –3).

The current ratios of NABIL and SCBNL are given in the table below:

Table No. 4.0

Current Ratio (Times)

F/Y	NABIL	SCBNL
2003/2004	1.051	1.054
2004/2005	1.076	1.085
2005/2006	1.092	1.075
2006/2007	1.097	1.074
2007/2008	1.097	1.087
Mean	1.083	1.075
S.D.	0.0197	0.0104
C.V.	1.82%	0.97%

It is clear from the above table that both NABIL and SCBNL have maintained current assets more than their current liabilities. This is a sign that both banks are capable enough to pay their current obligations. NABIL has the highest current ratio in F/Ys 2006/07 & 2007/08 i.e., 1.097 and the lowest in F/Y 2003/2004 i.e., 1.051.

Similarly SCBNL has a high current ratio of 1.087 in F/Y 2007/2008 and a low of 1.054 in F/Y 2003/2004. The averages mean ratio of NABIL is slightly higher than SCBNL; i.e. 1.083 >1.075. This shows that NABIL's liquidity position is slightly better than that of SCBNL. The lower degree of standard deviation and coefficient of variation suggest that both the banks have maintained consistency in their ratios. Though as per the conventional rule current ratio should be 2:1 but for banks and other financial institutions any current ratio above 1 also considered healthy and sound.

In order to bring about consistency in this research, checks subject to clearing have been excluded from cash and bank balance and included in other assets.

ii) Cash and Bank Balance to Total Deposit Ratio

This ratio is calculated by dividing cash and bank balance by total deposits. (For details see appendix –4). The cash and bank balance to total deposits ratio of NABIL and SCBNL are given below:

Table No. 4.1

Cash and Bank Balance to Total deposit ratio (%)

F/Y	NABIL	SCBNL
2003/2004	5.13	6.23
2004/2005	6.78	5.21
2005/2006	8.51	8.06
2006/2007	6.87	9.56
2007/2008	3.83	5.75
Mean	6.22	6.96
S.D.	1.6	1.6
C.V.	25.72	23.00

The above table shows that the cash and bank balance to total deposit of both NABIL and SCBNL are in fluctuating trend. NABIL had a high ratio of 8.51% in F/Y 2005/2006 and a low ratio of 3.83% in F/Y 2007/2008. Similarly, SCBNL has a high of 9.56% in F/Y 2006/2007 and a low of 5.21% in F/Y 2004/2005. The average mean ratio of SCBNL is slightly higher than NABIL i.e., 6.96%>6.22%. This shows, SCBNL readiness to meet customer requirement better than NABIL. The C.V. of SCBNL is slightly lower than that of NABIL i.e., 23%<25.72%. On its basis, it can be concluded that SCBNL ratios are more consistent than that of NABIL's.

Although the above ratios implies a slightly better liquidity position of SCBNL, a high ratio of non-earning cash and bank balance indicates the banks inability to invest its fund in income generation areas that might have helped it to improve its profitability.

iii) Cash and Bank Balance to Current Assets Ratio

This ratio is calculated by dividing cash and bank balance by current assets (for detail see appendix-5). The Cash and bank balance to current assets ratio are presented in the following table.

Table No. 4.2

Cash and Bank Balance to current asset ratio (%)

F/Y	NABIL	SCBNL
2003/2004	4.49	5.00
2004/2005	5.93	4.42
2005/2006	6.88	7.17
2006/2007	5.80	8.51
2007/2008	3.29	5.03
Mean	5.28	6.03
S.D.	1.25	1.56
C.V.	23.76	26.00

There above table shows that the cash and bank balance to current assets of both NABIL & SCBNL are in a fluctuating trend. NABIL has maintained a high ratio of 6.88% in F/Y 2005/06, and a low ratio of 3.29% in 2007/08. Similarly, SCBNL has had a high of 8.51 in F/Y 2006/07 anticipating higher cash requirement depositors in this F/Y. It has a low ratio of 4.42% in F/Y 2004/2005.

The average mean ratio of SCBNL is slightly higher than NABIL. The C.V. of SCBNL is greater than that of NABIL i.e., 26%>23.76%. It shows SCBNL ratios are less consistent than that of NABIL. The above table does not show any significant difference between the JVB's with regards to meeting customer's daily cash requirement. Both have fared well in meeting their depositor's daily cash requirement and investing the surplus fund in other productive areas.

iv) Investment on Government Securities to Current Assets Ratio

This ratio is calculated by dividing investment on government securities by current assets. The Investment on

Government securities to current assets ratio of NABIL and SCBNL are tabulated below:

Table No.4.3

Investment on Government Securities to Current Assets Ratio (%)

F/Y	NABIL	SCBNL
2003/2004	15.10	25.03
2004/2005	23.24	31.00
2005/2006	21.56	31.86
2006/2007	21.94	33.43
2007/2008	14.17	32.61
Mean	19.20	30.79
S.D.	3.78	3.13
C.V.	19.69	10.11

The above table clearly depicts that the investment on Government securities to current assets of both the sample banks have a fluctuating trend. Nevertheless, both have tried to maintain consistency from F/Y 2004/2005 onwards.

From the above five year picture, it is evident that the average mean ratio of SCBNL is higher than that of NABIL i.e. 30.79%>19.20%. This shows that a greater portion of current assets of SCBNL comprises of government securities. Also, SCBNL's investments in government securities to current assets has had an increasing trend over the years. From the point of view of C.V. SCBNL's ratios have been more consistent. NABIL has been more consistent in its ratio post F/Y 2004/05. From the above analysis it is clear that NABIL has made lesser investment in government securities as it has injected more funds on other productive sectors. The reason behind SCBNL higher ratio could be attributed to more deposit collection and unavailability of other secured and profitable investment sectors. The balance sheet of SCBNL post 2004/05 shows that total fund invested in

government securities is more than the loan & advances it has made. Investment on government securities to current assets ratio of NABIL & SCBNL.

v) Loan and Advances to Current Assets Ratio

This ratio is calculated by dividing total loan and advances by current assets (for detail see appendix-7). The ratios are presented in the following table.

Table No. 4.4

Loan and advances to current assets ratio (%)

F/Y	NABIL	SCBNL
2003/2004	45.99	29.55
2004/2005	44.00	30.52
2005/2006	48.75	28.44
2006/2007	51.06	28.15
2007/2008	64.29	38.13
Mean	50.82	30.96
S.D.	7.15	3.68
C.V.	14.06	1.19

The above table clearly shows favorable increasing trend of loan and advances of NABIL during the study period. The average mean ratio of NABIL is higher compared to SCBNL i.e. 50.82>30.96. NABIL had had a high ratio of 64.29% in 2007/08 and a low ratio of 44.00% in F/Y 2004/2005. Similarly SCBNL has had a high ratio of 38.13% in F/Y 2007/2008 and a low of 28.15% in F/Y 2006/2007.

The above analysis reveals that NABIL has been more successful in identifying profitable investment sectors and increasing it's earnings. The same does not hold true for SCBNL, whose efforts seems to be more focused on investing in risk free assets, rather than increasing its loan and advances volume and subsequent earnings from it.

The loan and advances to current assets ratios of NABIL and SCBNL.

B) Asset Management Ratios

The following ratios measure the asset management ability of NABIL and SCBNL.

i) Loan and Advances to Total Deposit Ratio

This ratio is calculated by dividing total loan and advances by total deposits. (For details see appendix-8).

The data tabulated below shows the loan and advances to total deposit ratio of NABIL and SCBNL.

Table No: 4.5

Loan and Advances to Total Deposit Ratio (%)

F/Y	NABIL	SCBNL
2003/2004	52.56	36.82
2004/2005	50.31	35.97
2005/2006□60.34 60.34	32.00	2006/2007 2006/2007
2007/2008		
75.05□43.55□□Mean□59.76□35.99□□S.D.□8.66□4.31□□C.V.□14.50□11.97□□ The above table shows that the loan and advances to total deposit of both the banks have a fluctuating trend. NABIL had a high ratio of 75.05% in F/Y 2007/08 and a low ratio of 50.31% in F/Y 2004/05. Accordingly, SCBNL had a high of 43.55% and a low of 31.63%. SCBNL's loan and advances to total deposit has had a		

decreasing trend till F/Y 2006/07 which has dramatically increased in the year 2007/08. The mean ratio of NABIL is above 1.66 times that of SCBNL i.e. 59.76%>35.99%. NABIL seems stronger in terms of mobilization of its total deposits as loan and advances when compared to SCBNL.

In terms of C.V., both seem to be equally consistent. Hence concluded that, NABIL has been more successful in mobilizing its total deposits as loan and advances than SCBNL. On the contrary, a high ratio should not be perceived as a better state of affairs from the point of view of liquidity, as loan and advance are not as liquid as cash and bank balance and

other investment. In portfolio management of bank various factors such as availability of funds, liquidity requirements, central bank norms etc. needs to be taken into account.

ii) Total Investment to Total Deposit Ratio

This ratio is calculated by dividing total investments by total deposits (For detail see apendix-9)

The data tabulated below shows the total investment to total deposit ratio of NABIL and SCBNL.

Table No. 4.6

Total Investment to Total Deposit Ratios (%)

F/Y NABIL SCBNL 2003/2004 48.64 61.95 2004/2005 52.88 58.5

8□□2005/2006□44.85□52.22□□2006/2007□41.33□53.68□□2007/2008□29.25□50.18□□Mean□43.39□55.92□□S.D.□11.32□4.32□□C.V.□26.09□7.81□□

The above table shows a highly fluctuating trend in total Investment to total deposit of NABIL and SCBNL. NABIL has a high ratio of 52.88% and a low ratio of 29.25%. SCBNL, on the other hand had a high ratio of 61.95% and a low ratio of 50.18% in F/Y 2004/2005 and 2007/2008 respectively.

SCBN has a high mean ratio than NABIL i.e., 55.92%>43.39%. From mean ratio perspective, SCBNL has been more successful in mobilization of deposits on various

forms of investment.

From C.V.'s viewpoint, SCBNL is better in terms of consistency than NABIL.

In conclusion, the above analysis reveals that SCBNL has been more successful in mobilizing its resources on various forms of investment. What is worth mentioning is that Interest on Treasury Bills, Inter bank lending and placements are at an all time low level, so SCBNL has not done itself justice by investing in low yield, less risky and risk free assets.

iii) Loan and Advances to Total Working Fund Ratio

This ratio is computed by dividing loan and

advances by total working fund. The following table exhibits the ratio of loan and advances to total working fund of NABIL and SCBNL during the study period.

Table No. 4.7

Loan and Advances to Total Working Fund Ratio

F/Y NABIL SCBNL 2003/2004 45.32 29.35 2004/2005 43.36 30.34 2005/2006 48.68 28.17 2006/2007 49.98 27.98 2007/2008 62.39 37.98 Mean 49.95 30.76 S.D. 6.65 3.70 C.V. 13.20 12.00

The above table shows an increasing trend of loan and advances to total working fund of NABIL and fluctuating trend in case of SCBNL. NABIL has

maintained highest ratio of 62.39% in F/Y 2007/08 and a low ratio of 43.36% in F/Y 2004/05. Similarly, SCBNL has maintained a high ratio of 37.98% in F/Y 2007/08 and a low ratio of 27.98% in F/Y 2006/07.

NABIL also has a high average ratio of loan and advances to total working fund than SCBNL i.e. 49.95%>30.76%. It reveals the strength of NABIL in mobilizing its total assets as loan and advances. NABIL's CAR (capital adequacy ratio) stands at a comfortable 12.44% and CAR of SCBNL stands at 15.85% against NRB mandatory requirement of 12%. This surplus capital gives them an added advantage to assume more risk-weighted

asset within NRB prescribed norms.

iv) Investment on Government Securities to Total Working Fund Ratio

This ratio is calculated by dividing Investment on government securities by total working fund. The following table shows that ratios of NABIL and SCBNL.

Table No. 4.8

Investment in Government Securities to Total Working Fund Ratio

F/Y	NABIL	SCBNL
2003/2004	14.88	24.85
2004/2005	22.90	30.81
2005/2006	21.53	31.56
2006/2007	21.47	33.22
2007/2008	13.75	32.49
Mean	18.91	30.59
S.D.	9.2	

3□2.98□□C.V.□48.76%□9.75%□□

The above table reveals that SCBNL has had an increasing trend of Investment of Government securities to total working fund over the study period while NABIL has had more of a fluctuating trend. NABIL has a higher ratio 22.90% in F/Y 2004/05 and a low ratio of 13.75% in F/Y 2007/2008. Similarly, SCBNL has had a high ratio of 33.22% in F/Y 2006/07 and low ratio of 24.85% in 2003/2004.

When mean ratio is considered, NABIL seems to be slightly weaker than SCBNL in mobilizing of total assets as Investment in Government securities i.e. (18.91%<30.59%).

Also, when we

compare C.V. of both, it reflects that ratios of NABIL are less consistent than SCBNL i.e., (48.76%>9.75%).

From the above analysis, we can conclude that SCBNL has invested larger portion of working fund in government securities than NABIL. The ratios also indicates that both the banks have no concrete or certain investment policy with regards to what percentage of working fund to be invested in purchasing government securities.

v) Investment on Share and Debentures to Total Working Fund Ratio.

The investment on share and debentures to total

working fund ratio of NABIL and SCBNL has been shown in the following table.

Table No. 4.9

Investment on Share and Debentures to Total Working Fund Ratio

F/Y	**NABIL**	**SCBNL**
2003/2004	0.102	0.058
2004/2005	0.123	0.060
2005/2006	0.133	0.053
2006/2007	0.130	0.047
2007/2008	0.156	0.060
Mean	0.129	0.056
S.D.	0.017	0.005
C.V.	13.23	8.77

The above table clearly reveals that both the banks have invested miniscule percentage of total working fund in purchasing share and debentures of other companies. In either case the ratio percentage is less than 0.2%. NABIL

has invested slightly higher amount of total working fund on shares and debenture than SCBNL. It also has a mean ratio higher than SCBNL. It indicates that NABIL has been more successful in mobilizing it funds as Investment in shares and debenture than SCBNL, though the fund invested is marginal in comparison to total investment portfolio in case of both.

The above table also shows NABIL's increasing trend in Investment on shares and debentures except for F/Y 2006/07, whereas SCBNL has had a fluctuating trend through out the period of study.

In terms of C.V. both the banks

have remained fairly consistent though SCBNL's variability is slightly less than that of NABIL i.e., (8.77%<13.23%)

C) Profitability Ratio

The following ratios are calculated under profitability ratios:

i) Return on Loan and advances ratio

This ratio is calculated by dividing net profit by loan and advances. The following table shows the return on loan and advances ratio of NABIL and SCBNL during the study period.

Table No. 4.18

Return on Loan and Advances Ratio (%)

F/Y	**NABIL**	**SCBNL**
2003/2004	3.50	7.58
2004/2005	3.48	8.41
2005/2006	5.13	8.45
2006/2007	5.33	8.03
2007/2008	4.74	6.40
Mean	4.44	7.77
S.D.	0.7848	0.76
C.V.	17.84	9.72

The above table shows that the ratio of return on loan and advances of SCBNL are better than NABIL in all F/Y, through they have a fluctuating trend. NABIL's ratios have witnessed a fluctuating trend. NABIL has recorded a high ratio of 5.33% in F/Y 2006/07, and a low ratio of 3.48% in F/Y 2004/05. Similarly, SCBNL recorded a high of 8.45% in F/Y 2002/03 and a low of 6.40% in F/Y

2007/08.

The comparison of mean ratio reveals that SCBNL has a higher ratio than NABIL i.e., 7.77%>4.44%. This shows that SCBNL has been more successful in maintaining its higher return on loan and advances than NABIL.

C.V. of SCBNL is significantly lower than NABIL i.e. 9.72%>17.84%. It proves that NABIL has higher variability of ratio than SCBNL.

In conclusion, it can be said that NABIL's profit earning capacity by utilizing available resources is weaker compared to SCBNL, nevertheless NABIL is making significant improvements in this regard.

ii) Return on Total Working Fund Ratio

This ratio is calculated by dividing net profit by total working fund. The data tabulated below reflects the profitability position with respect to total assets of NABIL and SCBNL.

Table No. 4.11

Return on total working fund ratio (%)

F/Y NABIL SCBNL
2003/2004 1.59 2.23
2004/2005 1.51 2.55
2005/2006 2.50 2.38
2006/2007 2.66 2.25
2007/2008 2.96 2.43
Mean 2.24 2.37
S.D. 0.585 0.12
C.V. 26.10 5.00

The above table reveals that the ratio of return on total working fund is in

decreasing trend in case of NABIL upto F/Y 2004/05. From F/Y 2005/06 the ratio has an increasing trend. It has surpassed SCBNL since F/Y 2005/06. NABIL has had a high ratio of 2.96% in F/Y 2007/08 and a low ratio of 1.51% in F/Y 2007/08. Similarly, SCBNL has had a high of 2.55% and a low of 2.23% in F/Y 2004/05 and 2003/04 respectively.

SCBNL has a slightly high mean ratio than NABIL i.e., 2.37>2.24. It reveals that SCBNL has been able to earn high profit on total working fund in comparison to NABIL. One point worth making here is that NABIL has managed and utilized it assets more efficiently than

SCBNL from F/Y 2005/06 onwards and its return on assets have also been higher. SCBNL has not managed its assets well post F/Y 2005/2006. Its return on total assets has also been lower in comparison to NABIL in F/Y 2006/07 and 2007/08.

From the viewpoint of C.V., SCBNL's ratios are more consistent than NABIL i.e. 5% < 26.10%. Both banks need to exert more effort in mobilizing its working assets in an efficient manner.

iii) Total Interest Earned to Total Working Fund Ratio

This ratio is calculated by dividing total interest earned by total assets. The following table shows interest

earned to total working fund ratio of NABIL and SCBNL during the review period.

Table No. 4.12

Total Interest earned to total asset (%)

F/Y	NABIL	SCBNL
2003/2004	6.90	6.42
2004/2005	6.23	5.40
2005/2006	6.11	4.70
2006/2007	5.86	4.36
2007/2008	6.09	4.77
Mean	6.24	5.13
S.D.	0.35	0.73
C.V.	5.60	14.18

The above table reflects a decreasing trend in interest earning ratio of both the banks. NABIL has had a high ratio of 6.90% in F/Y 2003/2004 and a low ratio of 5.86% in F/Y 2006/2007. Similarly, SCBNL has experienced a high of 6.42% in F/Y

2003/2004 and a low of 4.36% in F/Y 2006/2007.

The average Interest earning ratio of NABIL is 6.24% where as the same for SCBNL is 5.13%. This reflects that NABIL has been stronger in terms of interest earning power w.r.t. total working fund than SCBNL.

From the above analysis, we can conclude that NABIL has been able to earn high interest on its total assets i.e., it has been more successful in mobilizing its assets to generate high income. The decreasing trend of interest earning ratio w.r.t. total working fund is a matter of concern, and both the banks need to look for ways to improve upon their

interest earnings.

iv) Total Interest Earned to Total Operating Income Ratio

This ratio is calculated by dividing total interest earning by net operating income. The following table shows interest earned to total operating income ratio of NABIL and SCBNL.

Table No. 4.13

Interest Earned to Total Operating Income Ratio (%)

F/Y NABIL SCBNL
2003/2004 80.51 75.78
2004/2005 68.34 70.06
2005/2006 75.93 66.60
2006/2007 75.10 68.51
2007/2008 74.30 67.29
Mean 74.84 69.65
S.D. 3.90 3.28
C.V. 5.20 4.71

The above table shows that both the banks have a fluctuating trend of Interest earning ratio. SCBNL has had a decreasing trend of Interest earned to total operating income ratio except for F/Y 2006/07. The higher and lower ratios of NABIL are 80.51% in F/Y 2003/2004 and 68.34% F/Y 2004/2005 respectively. SCBNL has had a high of 75.78% in F/Y 2003/2004 and a low of 66.60% in F/Y 2005/2006.

The mean ratio of NABIL is higher than SCBNL i.e., 74.84%>69.65%. On the basis of mean ratio, we can say that NABIL has been more successful in earning higher amount of interest income out of total operating income.

On the other hand, the variability in Interest earned to total operating income of both the banks are similar. Both have been equally consistent in their ratios.

From the above analysis, it can be concluded that NABIL has mobilized its funds in interest bearing assets better than SCBNL. It is also evident that SCBNL has given more priority to non-fund based income to earn higher profit than NABIL. NABIL needs to increase its income from off balance sheet operation as well.

v) Total Interest Earned to Total Outside Assets Ratio

This ratio is

calculated by dividing total interest earned by total outside asset. The following table shows interest earned to total outside assets

Table No. 4.14

Total Interest Earned to Total Outside Assets Ratio

F/Y	**NABIL**	**SCBNL**
2003/2004	7.90	8.16
2004/2005	7.00	6.77
2005/2006	7.20	6.12
2006/2007	6.96	5.77
2007/2008	7.02	5.84
Mean	7.22	6.53
S.D.	0.33	1.13
C.V.	4.89	17.80

The above table reflects a fluctuating trend in Interest earned to total outside assets in case of NABIL, where as SCBNL ratios have a decreasing trend.

NABIL has

recorded a high ratio of 7.90% in F/Y 2003/2004 and a low ratio of 6.96% in F/Y 2006/2007. SCBNL has had a high ratio of 8.16% in FY 2003/2004 and a low ratio of 5.77% in F/Y 2006/2007.

In case of mean ratio, NABIL has a higher ratio than SCBNL i.e. 7.02%>6.53%. It is clear that NABIL has earned higher amount of interest on its outside assets in comparison to SCBNL. The C.V. of NABIL is quite lower than SCBNL (i.e. 4.89%<17.80%). This indicates that NABIL ratios are more stable than SCBNL.

From the above analysis, it can be concluded that NABIL seems to be more successful in earning high

interest on its outside assets than SCBNL.

vi) Total Interest Paid to Total Working Fund Ratio

This ratio is calculated by dividing total interest paid by total working fund. The following table shows the total interest paid to total interest paid to total working fund ratio of NABIL and SCBNL for the five-year study period.

Table No. 4.15

Total Interest Paid to Total Working Fund Ratio (%)

F/Y□NABIL□SCBNL□□2003/2004□3.15□2.45□□2004/2005□2.57□1.60□□2005/2006□1.90□1.20□□2006/2007□1.65□1.15□□2007/2008□1.39□1.15□□Mean□2.13□1.51□□S.D.□0.64□0.50□□C.V.□30.00□33.00□□The

above table shows a decreasing trend in total Interest paid to total working fund ratio of both the banks. The decrease in Interest expenses can be attributed to an all time low Interest rate offered by banks on deposits, lower interest rates on inter-bank taking, and bank borrowings.

The average ratio of SCBNL with regards to total interest paid to total working fund ratio is slightly lower than that of NABIL i.e. 1.51%<2.13%. In terms of C.V., SCBNL ratios are more stable than that of NABIL.

Overall we can say that SCBNL is in a better position form interest payment point of view that NABIL. SCBNL seems to have

collected its funds from cheaper sources than NABIL.

D) Risk Ratio

The following risk ratios have been used to measure the risk involved in financial operation of NABIL and SCBNL.

i) Liquidity Risk Ratio

Liquidity risk is calculated by dividing cash and bank balance by total deposits. The following table shows the liquidity risk involved in NABIL and SCBNL.

Table No. 4.16

Liquidity Risk Ratio (%)

F/Y NABIL SCBNL
2003/2004 5.13 6.23
2004/2005 6.78 5.21
2005/2006 8.51 8.06
2006/2007 6.87 9.56
2007/2008 3.83 5.75
Mean 6.22 6.96
S.D.

□1.60□1.62□□C.V.□
25.76□23.21□□

The above table shows that the liquidity risk ratios of both the banks have fluctuating trend. NABIL has recorded a high ratio of 8.51% and a low ratio of 3.83%. Similarly, SCBNL has recorded a high of 9.56% and a low of 5.21%.

When mean ratio are taken it is found that SCBNL's liquidity risk is lower than that of NABIL i.e. 6.96>6.22. SCBNL has more cash & bank balance than NABIL to meet its current obligations. But we must not discount the fact that, too much idle cash has an adverse impact on profitability. A trade off between liquidity and profitability must be maintained at all

times.

On comparison of C.V.'s of both the banks, both seem equally consistent.

ii) Credit Risk Ratio

This ratio is calculated by dividing total loan and advances by total assets. The following table shows the comparative credit risk ratio of NABIL and SCBNL.

Table No. 4.17

Credit Risk Ratio (%)

F/Y NABIL SCBNL
2003/2004 52.56 36.82
2004/2005 50.31 35.97
2005/2006 60.34 32.00
2006/2007 60.55 31.63
2007/2008 75.05 43.55
Mean 59.76 35.99
S.D. 8.67 4.31
C.V. 14.51 11.97

The above table shows that NABIL ratios are in a decreasing trend till F/Y 2004/2005. There after they have an increasing trend. The ratios of SCBNL have a decreasing trend upto F/Y 2006/2007.

NABIL has had a high ratio of 75.05% in F/Y 2007/2008 and a low ratio of 50.31% F/Y 2004/2005. Similarly, SCBNL has had a high ratio of 43.55% in F/Y 2007/2008 and a low ratio of 31.63% in F/Y 2006/2007.

The mean ratio of SCBNL is lower than that of NABIL ie.,35.99%<59.7 his indicates that NABIL has more exposure to credit risk than its counterpart. The decreasing trend of SCBNL's ratios

projects a picture that SCBNL is trying to reduce its credit risk. From the point of view of C.V., both banks seem to have had consistent ratios during the study period.

E) Growth Ratio

Under this topic the following ratios directly related to fund mobilization and investment of the banks are calculated:

Growth ratios of total deposit

Growth ratio of total Investment

Growth ratio of loan and advances

Growth ratio of net profit.

Table No. 4.18

Growth Rate of Total Deposit (%)

(Rs. in Million)

F/Y	NABIL		SCBNL	
	Total Deposits (Rs.)	%	Total Deposits (Rs.)	%
2003/2004				

□15839.00□0□1543
0.05□0□□2004/2005□
15506.43□(2.1)□158
35.75□2.63□□2005/2
006□13447.66□(13.2
8)□18755.63□18.44
□□2006/2007□14119.
03□4.99□21161.44□
12.83□□2007/2008□1
4,587.00□3.31□193
35.09□(8.63)□□Mea
n□□(1.42)□□5.05□□
S.D.□□7.28□□7.54□

The growth rate of deposits of both the banks are in a fluctuating trend. The average growth rates of deposits of SCBNL are significantly higher than NABIL i.e. 5.05%>(1.42%). During the study period Nabil has experienced a negative growth. It also reflects NABIL dismal performance in collecting more deposits. NABIL has experienced negative growth rate in F/Y 2004/2005 and 2005/2006

respectively. NABIL has consciously decreased deposits by 2.1% in F/Y 2004/2005 and 13.28% in F/Y 2006/2007 as per its strategy of shedding high cost and unprofitable deposit.

On the contrary, SCBNL has been successful in increasing its deposit year after year except for F/Y 2007/2008 where it has had a negative growth. This is a solid proof of its high quality service, image, and credibility in the mind of depositors.

Table No. 4.19

Growth Rate of Total Loan and Advances (%)

Rs in Million

F/Y	**NABIL**	**SCBNL**
	Total loan & advances (Rs.)	%
	Total loan	

& advances (Rs.)□%□□2003/2004□8324.44□0□5681.35□0□□2004/2005□7801.85□(5.28)□5696.18□0.26□□2005/2006□8113.68□4.00□6000.16□5.35□□2006/2007□8548.66□5.36□6693.86□11.54□2007/2008□10,947.00□28.06□8420.86□25.80□□Mean□□6.23□□8.59□□S.D.□□10.17□□9.57□□

The growth rate of total loan and advances of both the banks are in a fluctuating trend. The average growth rate of total loan and advances of SCBNL is better than NABIL i.e. 8.59%>6.23%. This ratio can be misleading in the sense that the ratio of loan and advance to current assets, total deposits, total working fund of SCBNL is comparatively less than that of NABIL.

NABIL has experienced a negative growth in F/Y 2004/2005. This was due to a cautious approach taken by the bank in consolidating its business instead of exploring high-risk new business.

Table No. 4.20
Growth Rate of Total Investment (%)

Rs. in Million

F/Y	NABIL		SCBNL	
	Total Investment (Rs)	%	Total Investment (Rs)	%
2003/2004	7704.31	0	9559.18	0
2004/2005	8199.51	6.43	9275.88	(2.96)
2005/2006	6031.18	(26.44)	10357.68	11.66
2006/2007	5835.95	(3.24)	11360.33	9.68
2007/2008	4267.23	(26.88)	9702.50	(14.59)
Mean	(10.03)		0.	

76□□S.D.□□11.94□
□5.58□□

The growth rate of total investment of both the banks are in a fluctuating trend. NABIL has witnessed a high growth rate of 6.43% in F/Y 2004/2005 and a negative growth rate of 26.88% in F/Y 2007/2008.

On the other hand SCBNL has had a high growth rate of 11.66% in F/Y2005/2006 and highest negative growth rate of 14.59% in F/Y 2007/2008. The average growth ratio of investment of SCBNL seems to be higher than NABIL i.e., 0.76%>(10.03%).

Table No. 4.21

Growth Rate of Net Profit (%)

Rs. in Million

F/Y□NABIL□SCBNL□□ Net Profit (Rs.)□%□Net Profit (Rs.)□%□□2003/2004□291.38□0□430.83□0□□2004/2005□271.64□(6.77)□479.21□11.23□□2005/2006□416.24□53.23□506.93□5.78□□2006/2007□455.32□9.39□537.80□6.09□□2007/2008□519□13.99□539.20□0.26□□Mean□□13.97□□4.67□□S.D.□□18.77□□3.80□

The growth rate of net profit of both the banks has a fluctuating trend. NABIL has recorded a high growth rate of 53.23% in F/Y 2005/2006 and a low negative growth rate of 6.77% in F/Y 2004/2005. Similarly, SCBNL has had a high growth rate of

11.23% in F/Y 2004/2005 and a low growth rate of 0.26% in F/Y 2007/2008. Overall, SCBNL has been successful in increasing its net profit year after year though not in a manner its stakeholders would have liked it to.

The mean growth rate of NABIL is higher than SCBNL i.e., 13.97%>4.67%. This is due to a surge in net profit of NABIL by 53.23% in F/Y 2005/2006 over the previous F/Y. This sudden surge in net profit has made the growth ratios of NABIL unstable in comparison to SCBNL.

4.3 Statistical tools

Under this topic, some statistical tools

such as coefficient of correlation analysis between different variables, trend analysis of deposits, loan and advances, Investment and net profit as well as hypothesis test (t-statistic) are used to achieve the objectives of the study. These statistical tools are as follows:

A) Coefficient of Correlation Analysis

Under this topic, Karl Pearson's coefficient of correlation is used to find out the relationship between deposit and loan and advances, deposit and total investment, outside assets and net profit, deposits and net profit, deposits and interest earned, loan and advances and interest paid, total

working fund and net profit.

i) Coefficient of Correlation Between Deposits and Loan and Advances

The coefficient of correlation between deposits and loan and advances measures the degree of relationship between them. In our study, we have taken deposit as an independent variable denoted by (x) and loan and advance as dependent variable (y). The main objective of calculating 'r' between these two variables is to justify whether deposits are significantly used as loan and advances or not.

The following

table shows the value of 'r' r^2, PEr and 6PEr between total deposits and loan and advances of NABIL and SCBNL during the study period (for detail see Appendix A_1 and A_2).

Table No. 4.22

75.05□43.55□□Mean□59.76□35.99□□S.D.□8.66□4.31□□C.V.□14.50□11.97□□

The above table shows that the loan and advances to total deposit of both the banks have a fluctuating trend. NABIL had a high ratio of 75.05% in F/Y 2007/08 and a low ratio of 50.31% in F/Y 2004/05. Accordingly, SCBNL had a high of 43.55% and a low of 31.63%. SCBNL's loan and advances to total deposit has had a decreasing trend till F/Y 2006/07 which has dramatically increased in the year 2007/08. The mean ratio of NABIL is above 1.66 times that of SCBNL i.e. 59.76%>35.99%. NABIL seems stronger in terms of mobilization of its total deposits as loan and advances when compared to SCBNL.

In terms of C.V., both seem to be equally consistent. It can be concluded that, NABIL has been more successful in mobilizing its total deposits as loan and advances than SCBNL. On the contrary, a high ratio should not be perceived as a better state of affairs from the point of view of liquidity, as loan and advance are not as liquid as cash and bank balance and other investment. In portfolio management of bank various factors such as availability of funds, liquidity requirements, central bank norms etc. needs to be taken into account.

ii) Total Investment to Total Deposit Ratio

This ratio is calculated by dividing total investments by total deposits (For detail see apendix-9)

The data tabulated below shows the total investment to total deposit ratio of NABIL and SCBNL.

Table No. 4.6

Total Investment to Total Deposit Ratios (%)

F/Y NABIL SCBNL 2003/2004 48.64 61.95 2004/2005 52.88 58.58 2005/2006 44.85 52.22 2006/2007 41.33 53.68 2007/2008 29.25 50.18 Mean 43.39 55.92 S.D. 11.32 4.32 C.V. 26.09 7.81

The above table shows a highly fluctuating trend in total Investment to total deposit of NABIL and SCBNL. NABIL has a high ratio of 52.88% and a low ratio of 29.25%. SCBNL, on the other hand had a high ratio of 61.95% and a low ratio of 50.18% in F/Y2004/2005 and 2007/2008 respectively.

SCBNL has a high mean ratio than NABIL i.e., 55.92%>43.39%. From mean ratio perspective, SCBNL has been more successful in mobilization of deposits on various forms of investment.

From C.V.'s viewpoint, SCBNL is better in terms of consistency than NABIL.

In conclusion, the above analysis reveals that SCBNL has been more successful in mobilizing its resources on various forms of investment. What is worth mentioning is that Interest on Treasury Bills, Inter bank lending and placements are at an all time low level, so SCBNL has not done itself justice by investing in low yield, less risky and risk free assets.

iii) Loan and Advances to Total Working Fund Ratio

This ratio is computed by dividing loan and advances by total working fund. The following table exhibits the ratio of loan and advances to total working fund of NABIL and SCBNL during the study period.

Table No. 4.7

Loan and Advances to Total Working Fund Ratio

F/Y□NABIL□SCBNL□□2003/2004□45.32□29.35□□2004/2005□43.36□30.34□□2005/2006□48.68□28.17□□2006/2007□49.98□27.98□□2007/2008□62.39□37.98□□Mean□49.95□30.76□□S.D.□6.65□3.70□□C.V.□13.20□12.00□□

The above table shows an increasing trend of loan and advances to total working fund of NABIL and fluctuating trend in case of SCBNL. NABIL has maintained highest ratio of 62.39% in F/Y 2007/08 and a low ratio of 43.36% in F/Y 2004/05. Similarly, SCBNL has maintained a high ratio of 37.98% in F/Y 2007/08 and a low ratio of 27.98% in F/Y 2006/07.

NABIL also has a high average ratio of loan and advances to total working fund than SCBNL i.e. 49.95%>30.76%. It reveals the strength of NABIL in mobilizing its total assets as loan and advances. NABIL's CAR (capital adequacy ratio) stands at a comfortable 12.44% and CAR of SCBNL stands at 15.85% against NRB mandatory requirement of 12%. This surplus capital gives them an added advantage to assume more risk-weighted asset within NRB prescribed norms.

iv) Investment in Government Securities to Total Working Fund Ratio

This ratio is calculated by dividing Investment on government securities by total working fund. The following table shows that ratios of NABIL and SCBNL.

Table No. 4.8

Investment in Government Securities to Total Working Fund Ratio

F/Y□NABIL□SCBNL□□2003/2004□14.88□24.85□□2004/2005□22.90□30.81□□2005/2006□21.53□31.56□□2006/2007□21.47□33.22□□2007/2008□13.75□32.49□□Mean□18.91□30.59□□S.D.□9.23□2.98□□C.V.□48.76%□9.75%□□

The above table reveals that SCBNL has had an increasing trend of Investment of Government securities to total working fund over the study

period while NABIL has had more of a fluctuating trend. NABIL has a higher ratio 22.90% in F/Y 2004/05 and a low ratio of 13.75% in F/Y 2007/2008. Similarly, SCBNL has had a high ratio of 33.22% in F/Y 2006/07 and low ratio of 24.85% in 2003/2004.

When mean ratio is considered, NABIL seems to be slightly weaker than SCBNL in mobilizing of total assets as Investment in Government securities i.e. (18.91%<30.59%).

Also, when we compare C.V. of both, it reflects that ratios of NABIL are less consistent than SCBNL i.e., (48.76%>9.75%).

From the above analysis, we can conclude that SCBNL has invested larger portion of working fund in government securities than NABIL. The ratios also indicates that both the banks have no concrete or certain investment policy with regards to what percentage of working fund to be invested in purchasing government securities.

v) Investment on Share and Debentures to Total Working Fund Ratio.

The Investment on share and debentures to total working fund ratio of NABIL and SCBNL has been shown in the following table.

Table No. 4.9

Investment on Share and Debentures to Total Working Fund Ratio

F/Y□NABIL□SCBNL□□2003/2004□0.102□0.058□□2004/2005□0.123□0.060□□2005/2006□0.133□0.053□□2006/2007□0.130□0.047□□2007/2008□0.156□0.060□□Mean□0.129□0.056□□S.D.□0.017□0.005□C.V.□13.23□8.77□□

The above table clearly reveals that both the banks have invested miniscule percentage of total working fund in purchasing share and debentures of other companies. In either case the ratio percentage is less than 0.2%. NABIL has invested slightly higher amount of total working fund on shares and debenture than SCBNL. It also has a mean ratio higher than SCBNL. It indicates that NABIL has been more successful in

mobilizing it funds as Investment in shares and debenture than SCBNL, though the fund invested is marginal in comparison to total investment portfolio in case of both.

The above table also shows NABIL's increasing trend in Investment on shares and debentures except for F/Y 2006/07, where as SCBNL has had a fluctuating trend through out the period of study.

In terms of C.V. both the banks have remained fairly consistent though SCBNL's variability is slightly less than that of NABIL i.e., (8.77%<13.23%)

C) Profitability Ratio

The following ratios are calculated under profitability ratios:

i) Return on Loan and advances ratio

This ratio is calculated by dividing net profit by loan and advances. The following table shows the return on loan and advances ratio of NABIL and SCBNL during the study period.

Table No. 4.18

Return on Loan and Advances Ratio (%)

F/Y□NABIL□SCBNL□□2003/2004□3.50□7.58□□2004/2005□3.48□8.41□□2005/2006□5.13□8.45□□2006/2007□5.33□8.03□□2007/2008□4.74□6.40□□Mean□4.44□7.77□□S.D.□0.7848□0.76□□C.V.□17.84□9.72□□

The above table shows that the ratio of return on loan and

advances of SCBNL are better than NABIL in all F/Y, through they have a fluctuating trend. NABIL's ratios have witnessed a fluctuating trend. NABIL has recorded a high ratio of 5.33% in F/Y 2006/07, and a low ratio of 3.48% in F/Y 2004/05. Similarly, SCBNL recorded a high of 8.45% in F/Y 2002/03 and a low of 6.40% in F/Y 2007/08.

The comparison of mean ratio reveals that SCBNL has a higher ratio than NABIL i.e., 7.77%>4.44%. This shows that SCBNL has been more successful in maintaining its higher return on loan and advances than NABIL.

C.V. of SCBNL is significantly lower than NABIL i.e. 9.72%>17.84%. It proves that NABIL has higher variability of ratio than SCBNL.

In conclusion, it can be said that NABIL's profit earning capacity by utilizing available resources is weaker compared to SCBNL, nevertheless NABIL is making significant improvements in this regard.

ii) Return on Total Working Fund Ratio

This ratio is calculated by dividing net profit by total working fund. The data tabulated below reflects the profitability position with respect to total assets of NABIL and SCBNL.

Table No. 4.11

Return on total working fund ratio (%)

F/Y□NABIL□SCBNL□□2003/2004□1.59□2.23□□2004/2005□1.51□2.55□□2005/2006□2.50□2.38□□2006/2007□2.66□2.25□□2007/2008□2.96□2.43□□Mean□2.24□2.37□□S.D.□0.585□0.12□□C.V.□26.10□5.00□□

The above table reveals that the ratio of return on total working fund is in decreasing trend in case of NABIL upto F/Y 2004/05. From F/Y 2005/06 the ratio has an increasing trend. It has surpassed SCBNL since F/Y 2005/06. NABIL has had a high ratio of 2.96% in F/Y

2007/08 and a low ratio of 1.51% in F/Y 2007/08. Similarly, SCBNL has had a high of 2.55% and a low of 2.23% in F/Y 2004/05 and 2003/04 respectively.

SCBNL has a slightly high mean ratio than NABIL i.e., 2.37>2.24. It reveals that SCBNL has been able to earn high profit on total working fund in comparison to NABIL. One point worth making here is that NABIL has managed and utilized it assets more efficiently than SCBNL from F/Y 2005/06 onwards and its return on assets have also been higher. SCBNL has not managed its assets well post F/Y 2005/2006. Its return on total assets has also been lower in comparison to NABIL in F/Y 2006/07 and 2007/08.

From the viewpoint of C.V., SCBNL's ratios are more consistent than NABIL i.e. 5% < 26.10%. Both banks need to exert more effort in mobilizing its working assets in an efficient manner.

iii) Total Interest Earned to Total Working Fund Ratio

This ratio is calculated by dividing total interest earned by total assets. The following table shows interest earned to total working fund ratio of NABIL and SCBNL during the review period.

Table No. 4.12

Total Interest earned to total asset (%)

F/Y NABIL SCBNL 2003/2004 6.90 6.42 2004/2005 6.23 5.40 2005/2006 6.11 4.70 2006/2007 5.86 4.36 2007/2008 6.09 4.77 Mean 6.24 5.13 S.D. 0.35 0.73 C.V. 5.60 14.18

The above table reflects a decreasing trend in interest earning ratio of both the banks. NABIL has had a high ratio of 6.90% in F/Y 2003/2004 and a low ratio of 5.86% in F/Y 2006/2007. Similarly, SCBNL has experienced a high of 6.42% in F/Y 2003/2004 and a low of 4.36% in F/Y 2006/2007.

The average Interest earning ratio of NABIL is 6.24% where as the same for SCBNL is 5.13%. This reflects that NABIL has been stronger in

terms of interest earning power w.r.t. total working fund than SCBNL.

From the above analysis, we can conclude that NABIL has been able to earn high interest on its total assets i.e., it has been more successful in mobilizing its assets to generate high income. The decreasing trend of interest earning ratio w.r.t. total working fund is a matter of concern, and both the banks need to look for ways to improve upon their interest earnings.

iv) Total Interest Earned to Total Operating Income Ratio

This ratio is calculated by dividing total interest earning by net operating income. The following table shows interest earned to total operating income ratio of NABIL and SCBNL.

Table No. 4.13

Interest Earned to Total Operating Income Ratio (%)

F/Y□NABIL□SCBNL□□2003/2004□80.51□75.78□□2004/2005□68.34□70.06□□2005/2006□75.93□66.60□□2006/2007□75.10□68.51□□2007/2008□74.30□67.29□□Mean□74.84□69.65□□S.D.□3.90□3.28□□C.V.□5.20□4.71□□

The above table shows that both the banks have a fluctuating trend of Interest earning ratio. SCBNL has had a decreasing trend of Interest earned to total operating income ratio except for F/Y 2006/07. The higher and lower ratios of NABIL are 80.51% in F/Y 2003/2004 and 68.34% F/Y 2004/2005 respectively. SCBNL has had a high of 75.78% in F/Y 2003/2004 and a low of 66.60% in F/Y 2005/2006.

The mean ratio of NABIL is higher than SCBNL i.e., 74.84%>69.65%. On the basis of mean ratio, we can say that NABIL has been more successful in earning higher amount of interest income out of total operating income.

On the other hand, the variability in Interest earned to total operating income of both the banks are similar. Both have been equally consistent in their ratios.

From the above analysis, it can be concluded that NABIL has mobilized its funds in interest bearing assets better than SCBNL. It is also evident that SCBNL has given more priority to non-fund based income to earn higher profit than NABIL. NABIL needs to increase its income from off balance sheet operation as well.

v) Total Interest Earned to Total Outside Assets Ratio

This ratio is calculated by dividing total interest earned by total outside asset. The following table shows interest earned to total outside assets

Table No. 4.14

Total Interest Earned to Total Outside Assets Ratio

F/Y NABIL SCBNL 2003/2004 7.90 8.16 2004/2005 7.00 6.77 2005/2006 7.20 6.12 2006/2007 6.96 5.77 2007/2008 7.02 5.84 Mean 7.22 6.53 S.D. 0.33 1.13 C.V. 4.89 17.80

The above table reflects a fluctuating trend in Interest earned to total outside assets in case of NABIL, where as SCBNL ratios have a decreasing trend.

NABIL has recorded a high ratio of 7.90% in F/Y 2003/2004 and a low ratio of 6.96% in F/Y 2006/2007. SCBNL has had a high ratio of 8.16% in FY 2003/2004 and a low ratio of 5.77% in F/Y 2006/2007.

In case of mean ratio, NABIL has a higher ratio than SCBNL i.e. 7.02%>6.53%. It is clear that NABIL has earned higher amount of interest on its outside assets in comparison to SCBNL. The C.V. of NABIL is quite lower than SCBNL (i.e. 4.89%<17.80%). This indicates that NABIL ratios are more stable than SCBNL.

From the above analysis, it can be concluded that NABIL seems to be more successful in earning high interest on its outside assets than SCBNL.

vi) Total Interest Paid to Total Working Fund Ratio

This ratio is calculated by dividing total interest paid by total working fund. The following table shows the total interest paid to total interest paid to total working fund ratio of NABIL and SCBNL for the five-year study period.

Table No. 4.15

Total Interest Paid to Total Working Fund Ratio (%)

F/Y NABIL SCBNL 2003/2004 3.15 2.45 2004/2005 2.57 1.60 2005/2006 1.90 1.20 2006/2007 1.65 1.15 2007/2008 1.39 1.15 Mean 2.13 1.51 S.D. 0.64 0.50 C.V. 30.00 33.00 The above table shows a decreasing trend in total Interest paid to total working fund ratio of both the banks. The decrease in Interest expenses can be attributed to an all time low Interest rate offered by banks on deposits, lower interest rates on inter-bank taking, and bank borrowings.

The average ratio of SCBNL with regards to total interest paid to total working fund ratio is slightly lower than that of NABIL i.e. 1.51%<2.13%. In terms of C.V., SCBNL ratios are more stable than that of NABIL.

Overall, we can say that SCBNL is in a better position form interest payment point of view that NABIL. SCBNL seems to have collected its funds from cheaper sources than NABIL.

D) Risk Ratio

The following risk ratios have been used to measure the risk involved in financial operation of NABIL and SCBNL.

i) Liquidity Risk Ratio

Liquidity risk is calculated by dividing cash and bank balance by total deposits. The following table shows the liquidity risk involved in NABIL and SCBNL.

Table No. 4.16

Liquidity Risk Ratio (%)

F/Y NABIL SCBNL 2003/2004 5.13 6.23 2004/2005 6.7

8□5.21□□2005/2006□8.51□8.06□□2006/2007□6.87□9.56□□2007/2008□3.83□5.75□□Mean□6.22□6.96□□S.D.□1.60□1.62□□C.V.□25.76□23.21□□

The above table shows that the liquidity risk ratios of both the banks have fluctuating trend. NABIL has recorded a high ratio of 8.51% and a low ratio of 3.83%. Similarly, SCBNL has recorded a high of 9.56% and a low of 5.21%.

When mean ratio are taken it is found that SCBNL's liquidity risk is lower than that of NABIL i.e. 6.96>6.22. SCBNL has more cash & bank balance than NABIL to meet its current obligations. But we must not discount the fact that, too much idle cash has an adverse impact on profitability. A trade off between liquidity and profitability must be maintained at all times.

On comparison of C.V.'s of both the banks, both seem equally consistent.

ii) Credit Risk Ratio

This ratio is calculated by dividing total loan and advances by total assets. The following table shows the comparative credit risk ratio of NABIL and SCBNL.

Table No. 4.17

Credit Risk Ratio (%)

F/Y□NABIL□SCBNL□□2003/2004□52.56□36.82□□2004/2005□50.31□35.97□□2005/2006□60.34□32.00□□2006/2007□60.55□31.63□□2007/2008□75.05□43.55□□Mean□59.76□35.99□□S.D.□8.67□4.31□□C.V.□14.51□11.97□□

The above table shows that NABIL ratios are in a decreasing trend till F/Y 2004/2005. There after they have an increasing trend. The ratios of SCBNL have a decreasing trend upto F/Y 2006/2007.

NABIL has had a high ratio of 75.05% in F/Y 2007/2008 and a low ratio of 50.31% F/Y 2004/2005. Similarly, SCBNL has had a high ratio of 43.55% in F/Y 2007/2008 and a low ratio of 31.63% in F/Y

2006/2007.

The mean ratio of SCBNL is lower than that of NABIL ie.,35.99%<59.76%.This indicates that NABIL has more exposure to credit risk than its counterpart. The decreasing trend of SCBNL's ratios projects a picture that SCBNL is trying to reduce its credit risk. From the point of view of C.V., both banks seem to have had consistent ratios during the study period.

E) Growth Ratio

Under this topic the following ratios directly related to fund mobilization and investment of the banks are calculated:

Growth ratios of total deposit
Growth ratio of total Investment
Growth ratio of loan and advances
Growth ratio of net profit.

Table No. 4.18
Growth Rate of Total Deposit (%)
(Rs. in Million)

F/Y□NABIL□SCBNL□□□Total Deposits (Rs.)□%□Total Deposits (Rs.)□%□□2003/2004□15839.00□0□15430.05□0□□2004/2005□15506.43□(2.1)□15835.75□2.63□□2005/2006□13447.66□(13.28)□18755.63□18.44□□2006/2007□14119.03□4.99□21161.44□12.83□□2007/2008□14,587.00□3.31□19335.09□(8.63)□□Mean□□(1.42)□□5.05□□S.D.□□7.28□□7.54□□

The growth rate of deposits of both the banks are in a fluctuating trend. The average growth rates of deposits of SCBNL are significantly higher than NABIL i.e. 5.05%>(1.42%). During the study period Nabil has experienced a negative growth. It also reflects NABIL dismal performance in collecting more deposits. NABIL has experienced negative growth rate in F/Y 2004/2005 and 2005/2006 respectively. NABIL has consciously decreased deposits by 2.1% in F/Y 2004/2005 and 13.28% in F/Y 2006/2007 as per its strategy of shedding high cost and unprofitable deposit.

On the contrary, SCBNL has been successful in increasing its deposit year after year except for F/Y 2007/2008 where it has had a

negative growth. This is a solid proof of its high quality service, image, and credibility in the mind of depositors.

Table No. 4.19

Growth Rate of Total Loan and Advances (%)

Rs in Million

F/Y□NABIL□SCBNL□□ Total loan & advances (Rs.)□%□Total loan & advances (Rs.)□%□□2003/2004□8324.44□0□5681.35□0□□2004/2005□7801.85□(5.28)□5696.18□0.26□□2005/2006□8113.68□4.00□6000.16□5.35□□2006/2007□8548.66□5.36□6693.86□11.54□□2007/2008□10,947.00□28.06□8420.86□25.80□□Mean□□6.23□□8.59□□S.D.□□10.17□□9.57□□

The growth rate of total loan and advances of both the banks are in a fluctuating trend. The average growth rate of total loan and advances of SCBNL is better than NABIL i.e. 8.59%>6.23%. This ratio can be misleading in the sense that the ratio of loan and advance to current assets, total deposits, total working fund of SCBNL is comparatively less than that of NABIL. NABIL has experienced a negative growth in F/Y 2004/2005. This was due to a cautious approach taken by the bank in consolidating its business instead of exploring high-risk new business.

Table No. 4.20

Growth Rate of Total Investment (%)

Rs. in Million

F/Y□NABIL□SCBNL□□ Total Investment (Rs)□%□Total Investment (Rs)□%□□2003/2004□7704.31□0□9559.18□0□□2004/2005□8199.51□6.43□9275.88□(2.96)□□2005/2006□6031.18□(26.44)□10357.68□11.66□□2006/2007□5835.95□(3.24)□11360.33□9.68□□2007/2008□4267.23□(26.88)□9702.50□(14.59)□□Mean□□(10.03)□□0.76□□S.D.□□11.94□□5.58□□

The growth rate of total investment of both the banks are in a fluctuating trend. NABIL has witnessed a high growth rate of 6.43% in F/Y 2004/2005 and a negative growth rate of 26.88% in F/Y

2007/2008.

On the other hand SCBNL has had a high growth rate of 11.66% in F/Y 2005/2006 and highest negative growth rate of 14.59% in F/Y 2007/2008. The average growth ratio of investment of SCBNL seems to be higher than NABIL i.e., 0.76%>(10.03%).

Table No. 4.21

Growth Rate of Net Profit (%)

Rs. in Million

F/Y□NABIL□SCBNL□□ Net Profit (Rs.)□%□Net Profit (Rs.)□%□□2003/2004□291.38□0□430.83□0□□2004/2005□271.64□(6.77)□479.21□11.23□□2005/2006□416.24□53.23□506.93□5.78□□2006/2007□455.32□9.39□537.80□6.09□□2007/2008□519□13.99□539.20□0.26□□Mean□□13.97□□4.67□□S.D.□□18.77□□3.80□□

The growth rate of net profit of both the banks has a fluctuating trend. NABIL has recorded a high growth rate of 53.23% in F/Y 2005/2006 and a low negative growth rate of 6.77% in F/Y 2004/2005. Similarly, SCBNL has had a high growth rate of 11.23% in F/Y 2004/2005 and a low growth rate of 0.26% in F/Y 2007/2008. Overall, SCBNL has been successful in increasing its net profit year after year though not in a manner its stakeholders would have liked it to.

The mean growth rate of NABIL is higher than SCBNL i.e., 13.97%>4.67%. This is due to a surge in net profit of NABIL by 53.23% in F/Y 2005/2006 over the previous F/Y. This sudden surge in net profit has made the growth ratios of NABIL unstable in comparison to SCBNL.

4.3 Statistical tools

Under this topic, some statistical tools such as coefficient of correlation analysis between different variables, trend analysis of deposits, loan and advances, Investment and net profit as well as hypothesis test (t-statistic) are used to achieve the objectives of the study. These statistical tools are as follows:

A) Coefficient of Correlation Analysis

Under this topic, Karl Pearson's coefficient of correlation is used to find out the relationship between deposit and loan and advances, deposit and total investment, outside assets and net profit, deposits and net profit, deposits and interest earned, loan and advances and interest paid, total working fund and net profit.

i) Coefficient of Correlation Between Deposits and Loan and Advances

The coefficient of correlation between deposits and loan and advances measures the degree of relationship between them. In our study, we have taken deposit as an independent variable denoted by (x) and loan and advance as dependent variable (y). The main objective of calculating 'r' between these two variables is to justify whether deposits are significantly used as loan and advances or not.

The following table shows the value of 'r' r^2, PEr and 6PEr between total deposits and loan and advances of NABIL and SCBNL during the study period (for detail see Appendix A_1 and A_2).

Table No. 4.22

Correlation between Deposit and Loan and Advances

Bank	Evaluation Criteria			
	R	**R^2**	**PEr**	**6PEr**
NABIL	0.1177	0.0138	0.2975	1.7849

SCBNL	0.595	0.353	0.1948	1.17

In the above table the coefficient of correlation between deposit and loan and advances in case of NABIL is 0.1177. This indicates that there exists a somewhat positive relationship between deposit and loan and advances. The calculated value of (r^2) or coefficient of determination is 0.0138. This means 1.38% of variation of the dependent variable (loan and advances) has been explained by the independent variable (deposit). When the value of 'r' i.e., 0.1177 is compared with six times the probably error or 6PEr. i.e., 1.7849, we can say that there exists no significant relationship between deposits and loan advances because 'r' is lower than six times PE.r i.e. 0.1177<1.7849. The coefficient of correlation 'r' between deposits and loan and advances incase of SCBNL is 0.595, which gives us an indication of higher positive correlation between them. Similarly, the value of coefficient of determination (r^2) is found to be 0.353. This shows that 35.30% variation of dependent variable (loan and advances) has been explained by the independent variable (deposits). The value of 'r' is less than six times PE.r. i.e. 0.595>0.1.17.

From the above analysis, we can conclude that though both the banks show positive relationship between deposits and loan and advance, the relationship is highly significant in case of SCBNL and the value of (r^2) shows higher percentage of dependency. In case of NABIL the relationship is less significant and (r^2) shows lower percentage of dependency. It indicates SCBNL has been more successful in utilizing its deposits in a proper manner than NABIL. To sum up, the increase in loan and advance is not due to effective mobilization of depositsrather other factors have played a greater role in increase in loan and advances.

ii) Coefficient of Correlation between Deposit and Total Investment.

Coefficient of correlation between deposit and total investment measures the degree of relationship between these two variables. Here deposit is taken as independent variable (x) and the variable dependent on deposits is total investment, which is denoted by (y). The purpose of calculating 'r' is to judge whether deposits are significantly mobilized as Investments or not.

The following table shows the value of 'r' (r^2) PEr & 6PEr of NABIL and SCBNL during the study period.

Table No. 4.23

Correlation between and Total Investment Deposit

Bank	Evaluation Criteria			
	R	**R^2**	**PER**	**6 PER**
NABIL	0.64	0.409	0.178	1.07
SCBNL	0.953	0.908	0.028	0.167

The coefficient of correlation 'r' between deposits and total investment in case of NABIL is 0.64, which indicates a positive correlation between deposits and total investment. Coefficient of determination (r^2) is 0.409. This indicates 41% of variation of the dependent variable has been explained by independent variable. The value of 'r' i.e. 0.64 is less than six times PEr. This states that there does not exist a significant relationship between deposits and total investment.

The coefficient of correlation 'r' between deposits and total investment in case of SCBNL is 0.953, which indicates a positive relationship between the two variables. The coefficient of determination (r^2) is 0.908. This indicates that 91% of the variation of the dependent variable has been explained by independent variable. Moreover 'r' is greater than six times P.E.r, which further states that there is a significant relationship between deposits and total investment.

In conclusion, it can be said that both the banks show significant relationship between total deposits and total investment. However, the relationship is more significant in case of SCBNL.

iii) Co-efficient of Correlation between Outside Assets and Net Profit.

Coefficient of correlation 'r' between outside asset and net profit measures the degree of relationship between these two variables. The main objective of calculating coefficient of correlation between outside asset and net profit is to justify whether the net profit is significantly correlated with total outside assets or not.

The following shows the value of 'r' 'r^2' PE.r. & 6PEr. of NABIL and SCBNL during the study period.

Table No. 4.24

Correlation between Outside Assets and Net Profit

Bank	Evaluation Criteria			
	r	**R^2**	**PEr**	**6PEr**
NABIL	-0.67	0.44	0.17	1.01
SCBNL	0.89	0.78	0.065	0.39

The coefficient of correlation 'r' between outside assets and net profit in case of NABIL is –0.67, which indicates a negative relationship between these two variables. Th coefficient of determination (r^2) is 0.0117. The value of 6pEr i.e. 0.1 is greater than the value of 'r' i.e. –0.67. This states that there exists an insignificant relationship between outside assets and net profit of NABIL.

The coefficient of correlation between outside assets and net profit in case of SCBNL is 0.89, which indicates a positive

relationship between the two variables. The value of (r^2) is 0.78 which highlights that 78% of the variation of the dependent variable has been explained by the independent variable. Likewise when we compare 6PEr with the value of 'r' we can say that there exists a significant relationship between outside assets and net profit because 'r' is greater than six times PE.r. i.e., 0.89>0.39. Thus SCBNL statistics portray a significant correlation between mobilization of outside assets and net profit.

Thus, in view of above we can conclude that the relationship between outside assets and net profit incase of NABIL is insignificant and a highly significant relationship exists in case of SCBNL.In case of SCBNL high percentage of dependency as shown by (r^2) suggests that outside assets have a greater role to play in increase in net profit.

iv) Coefficient of Correlation between Deposit and Net Profit.

The coefficient of correlation between deposit and net profit measures the degree of relationship between these two variables. Here, deposit is independent variable (x) and net profit is dependent variable (y). The main purpose of calculating between these two variables is to justify whether net profit is significantly correlated with deposits or not.

The following table shows the value of r, r^2, PEr & 6Er of NABIL and SCBNL during the study period (for detail see Appendix A_7 and A_8).

Table No. 4.25

Correlation between Deposit and Net Profit

Bank	Evaluation Criteria			
	r	**R^2**	**PEr**	**6PEr**
NABIL	-0.70	0.49	0.15	0.92

SCBNL	0.75	0.56	0.132	0.79

The coefficient of correlation between deposits and net profit in case of NABIL is –0.70, which shows a negative relationship between deposits and net profit. It has been able to increase its net profit despite shedding of RS. 2 billion in deposits. The coefficient of determination (r^2) is 0.49, which indicates 49% of the variation of the dependent variable (net profit) has been explained by the independent variable (deposits). The value of 6PEr is greater than 'r' i.e. 0.92>-0.70. This states that there exists an insignificant relationship between deposits and net profit.

The coefficient of correlation between deposits and net profit in case of SCBNL is 0.75, which indicates a positive relationship between these variables. The value of (r2) is 0.56 indicates that 56% of the variation of the dependent variable has been explained by the independent variable. The value of 'r' is less than 6PEr i.e. 0.75<0.79, which states that these exists a positive relationship between deposit and net profit though not highly significant.

From the above analysis, we can conclude that NABIL shows negative relationship or insignificant relationship and SCBNL shows positive relationship between deposit and net profit. The value of (r^2) in case of NABIL shows lower percentage of dependency and the same in case of SCBNL shows higher percentage of dependency. The increase in net profit in case of SCBNL is due to effective mobilization of deposits and other factors have a lesser role to play in increase in net profits. SCBNL has been more successful in mobilizing its deposits to yield higher profits year after year.

V) Co-efficient of Correlation between Deposits and Interest **Earned**

The coefficient of correlation between deposits and interest earned measure the relationship between these two variables. Here

deposit is independent variable (x) and interest earned is dependent variable (y). The main objective of calculating 'r' between these two variables is to justify whether deposit is significantly used to earn interest or not.

The following table sows the values of r, r^2, PEr & 6PEr of NABIL and SCBNL during the study period.

Table No. 4.26

Correlation between Deposit and Interest earned

Bank	**Evaluation Criteria**			
	r	**R^2**	**PEr**	**6PEr**
NABIL	0.88	0.78	0.067	0.40
SCBNL	-0.50	0.25	0.23	1.35

The coefficient of correlation 'r' between deposit and interest earned in case of NABIL is 0.88, which indicates a positive relationship between these variables. When deposits increased, the interest income subsequently increased but when it fell the interest income also fell. The coefficient of determination (r^2) is 0.78, which shows that 78% of the variation of dependent variable has been explained by independent variable. The value of six times PEr is less than 'r' i.e. 0.40<0.0.88. This states that there exists significant relationship between deposit and interest earned.

The coefficient of correlation 'r' between deposit and interest earned in case of SCBNL is –0.50, which projects a negative relationship between these variables. Its interest income has decreased despite an increase in total deposits. The coefficient of determination (r^2) is 0.25, which shows that 25% of the variation of dependent variable has been explained by the independent variable. The value of 'r' i.e. –0.50 is considerably less than six times PEr. This shows that there is insignificant relationship between interest earned and total deposits.

In conclusion, we can say that the relationship between deposit and interest earned in case of NABIL is highly significant with NABIL showing higher percentage of dependency and the relationship between the variables is insignificant in case of SCBNL. In case of NABIL effective mobilization of deposits has had a major role to play in its earnings, where as other factors are responsible in the earnings of SCBNL.

vi) Coefficient of Correlation between Loan and Advances and Interest Paid

The coefficient of correlation between loan and advances and interest paid measures the relationship between these two variables. Here, loan and advances is independent variable (x) and interest paid is dependent variable (y). The purpose of calculating 'r' between these variables is to establish whether increase in loan advances has any role to play in decrease in Interest expenses and vice-versa.

The following table shows the values of r, r^2, PEr and 6PEr of NABIL and SCBNL during the period of study.

Table No. 4.27

Correlation between Loan and Advances and Interest Paid

Bank	**Evaluation Criteria**			
	r	**R^2**	**PEr**	**6Per**
NABIL	0.57	0.33	0.203	1.22
SCBNL	-0.50	0.25	0.225	1.35

The calculated values of 'r' of both the banks reflect a negative relationship between loan and advances and Interest paid.

The coefficient of determination (r^2) in case of both the banks shows a lower degree of dependency.

The values of PEr is considerably greater than 'r' in both the cases, which states that there does not exist any significant relationship between loan and advances and interest paid during the study period for the above mentioned banks.

In conclusion no relationship could be established between the variables in case of both the banks.

vii) Coefficient of Correlation between Total Working Fund and Net Profit

The coefficient of correlation between these variables measures the degree of relationship between them. In our analysis, total working fund is taken as independent variable (x) and net profit is taken as dependent variable (y). The main objective of calculating 'r' is to justify whether total working fund is significantly used to generate earnings or in other words whether total working fund and net profit are significantly correlated or not.

The following table shows the value of r, r^2, PEr, and 6PEr between these two variables of NABIL and SCBNL.

Table No. 4.28

Correlation between Total Assets and Net Profit

Bank	**Evaluation Criteria**			
	r	**R^2**	**PEr**	**6PEr**
NABIL	-0.643	0.413	0.177	1.06
SCBNL	0.84	0.71	0.09	0.54

The coefficient of correlation 'r' between total assets and net profit is case of NABIL is –0.643 which indicates a negative relationship between these variables. The coefficient of determination (r^2) is 0.413, which shows that only 41.30% of the

variation of the dependent variable has been explained by independent variable. The value of 6PEr is greater than 'r' i.e. 1.06>-0.643. This further states that there exists an insignificant relation between the variables.

The coefficient of correlation 'r' between total assets and net profit in case of SCBNL is 0.84, which shows a positive relationship between total working fund and net profit. The coefficient of determination (r2) is 0.71, which indicates that 71% of the variation of the dependent variable has been explained by the in dependent variable. The value of 6PEr is less than 'r', which implies that there exists a significant relationship between these variables.

B. Trend analysis and projection for next five years

This is known as time series analysis. The objectives of this analysis are to analyze the trend of deposit collection, its utilization and net profit of NABIL and SCBNL. This topic analyzes the trend of deposits, loan and advances, total investment and net profit and its projection for the next five years the basis of past performance and records available.

The projections are based on the following assumptions:

- The bank will run in this present position i.e. trend will repeat itself.
- Other things will remain constant or unchanged.
- The economy will remain in the present stage.
- Nepal Rastra Bank will not change its guidelines relating to commercial banks.
- The forecast will hold true only when the limitation of least square method is carried out.

i) Analysis of Trend value of Total Deposit

Under this topic, based on the trend values of deposit from F/Y 2003/2004 to 2007/2008, an attempt has been made to forecast the projection for next five years, i.e. upto F/Y 2012/2013.

The following table shows the trend value of deposits from F/Y 2003/2004 to F/Y 2012/2013 (For detail refer Appendix A_{15} & A_{16})

Table No. 2.29

Trend Values of Total Deposit of NABIL and SCBNL

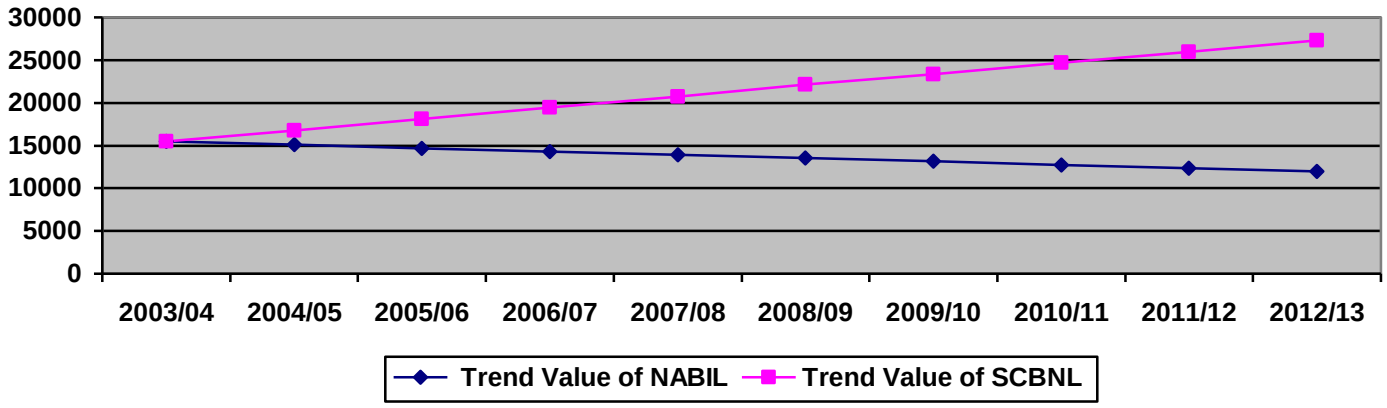
Rs. in Million

F/Y	Trend Value of NABIL	Trend Value of SCBNL
2003/2004	15478.10	15476.45
2004/2005	15088.96	16790.02
2005/2006	14699.82	18103.59
2006/2007	14310.68	19417.16
2007/2008	13921.54	20730.73
2008/2009	13532.40	22144.30
2009/2010	13143.26	23357.87
2010/2011	12754.12	24671.44
2011/2012	12364.98	25985.01
2012/2013	11975.84	27298.58

From the above comparative table it is clear that trend values of SCBNL is in an increasing trend. If other things remain unchanged the total deposit of NABIL is predicted to be Rs. 11975.84 million and that of SCBNL to be more than two times the deposit of NABIL by the end of F/Y 2012/2013 i.e. Rs. 27928.58 million.

From the above trend analysis, it is quite obvious that SCBNL's deposit collection is proportionately much better than NABIL.

Figure No. 4.1
Trend Values of Total Deposit of NABIL and SCBNL



ii) Analysis of Trend Values of Loan and Advances

Here, the trend values of loan and advances of NABIL and SCBNL have been calculated for five years from F/Y 2003/2004 to 2007/2008 and the forecast for next five years. i.e. from F/Y 2007/2008 to F/Y 2012/2013 has been made (for detail refer Appendix-A_{17} and A_{18})

Table No. 4.30
Trend Values of Loan and Advances of NABIL and SCBNL

Rs. in Million

F/Y	Trend Value of NABIL	Trend Value of SCBNL
2003/2004	7698.10	5203.14
2004/2005	8222.61	5850.81
2005/2006	8747.12	6498.48
2006/2007	9271.63	7146.15

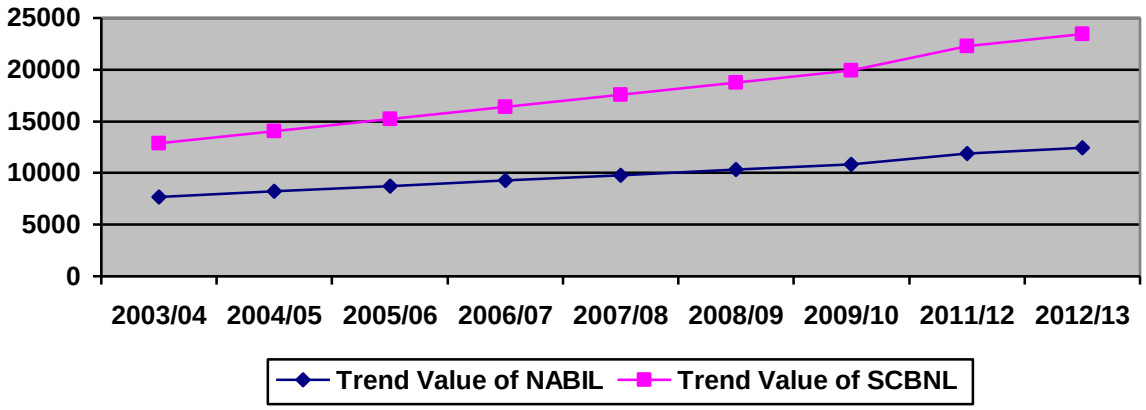
2007/2008	9796.14	7793.82
2008/2009	10320.65	8441.49
2009/2010	10845.16	9081.16
2010/2011	11369.67	9736.83
2011/2012	11894.18	10384.50
2012/2013	12418.69	11032.17

The above table clearly shows that the loan and advance of both the banks are in an increasing trend. Assuming that other things will remain constant, the loan and advances of NABIL at the end of F/Y 2012/2013 is predicted to be Rs. 12418.69 million. Similarly, the projection for SCBNL at the end of F/Y 2012/2013 is Rs 11032.17 million.

From the above trend analysis, it is quite clear that NABIL's loan and advances in relation to SCBNL is comparatively higher through out the trend projection period.

Figure No. 4.2

Trend values of loan and advances of NABIL and SCBNL



iii) Analysis of Trend Values of Total Investment

Under this topic, based on the trend values of Investment from F/Y 2003/2004 to 2007/2008, an attempt has been made to

forecast the projections for next five years i.e. upto F/Y 2012/2013.

The following table shows the trend value investment from F/Y 2003/2004 to F/Y 2012/2013 (for detail refer Appendix A_{19} and A_{20})

Table No. 4.31

Trend Values of Investment of NABIL and SCBNL

Rs. in Million

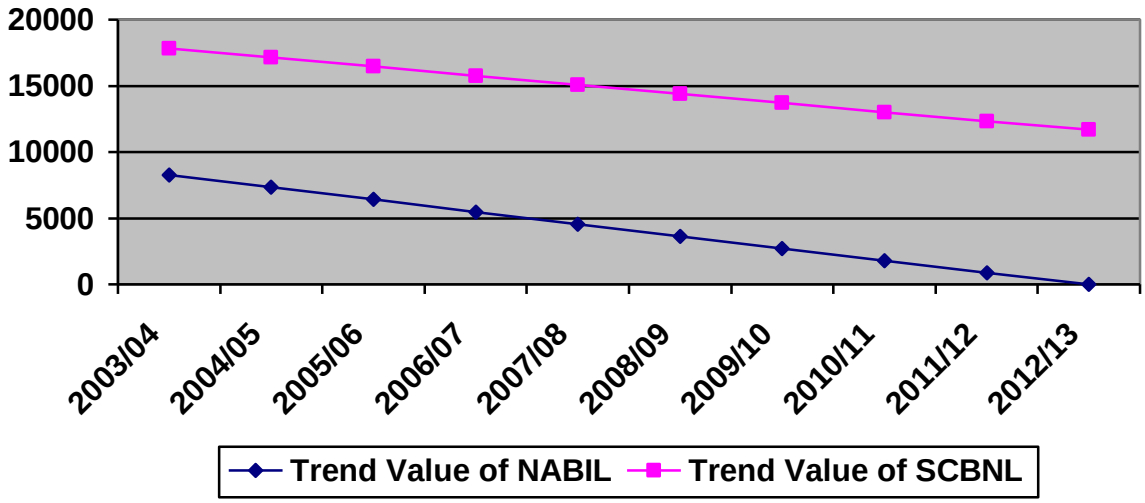
F/Y	Trend Value of NABIL	Trend Value of SCBNL
2003/2004	8255.77	9576.91
2004/2005	7330.00	9814.01
2005/2006	6404.23	10051.11
2006/2007	5478.46	10288.21
2007/2008	4552.69	10525.31
2008/2009	3626.92	10762.41
2009/2010	2701.15	10999.51
2010/2011	1775.38	11236.61
2011/2012	849.61	11473.71
2012/2013	0	11710.81

From the above table it is clear that the trend value of both the banks are in an increasing trend. If other things remain unchanged total investment of SCBNL to be Rs. 11710.81 million. Which is also the highest under the review period.

The above table reveals that SCBNL's total investment is higher than that of NABIL through out the trend projection period. It can be said that SCBNL has followed the policy of maximizing its investment.

Figure No. 4.4

Trend values of Investment of NABIL and SCBNL



iv) Analysis of Trend Values of Net Profit

Under this topic, based on the trend values of net profit from F/Y 2003/2004 to 2007/2008, an attempt has been made to forecast the projections for next five years i.e. upto F/Y 2012/2013.

The following table shows the trend value of net profit from F/Y 2003/2004 to F/Y 2012/2013 (for detail refer Appendix A_{21} and A_{22})

Table No. 4.32

Trend Value of Net Profit of NABIL and SCBNL

Rs. in Million

F/Y	Trend Value of NABIL	Trend Value of SCBNL
2003/2004	262.87	443.73
2004/2005	326.79	471.26
2005/2006	390.71	498.79
2006/2007	454.63	526.32
2007/2008	518.55	553.85
2008/2009	582.47	581.38
2009/2010	646.39	608.91
2010/2011	710.31	636.44
2011/2012	774.23	663.97
2012/2013	838.15	691.50

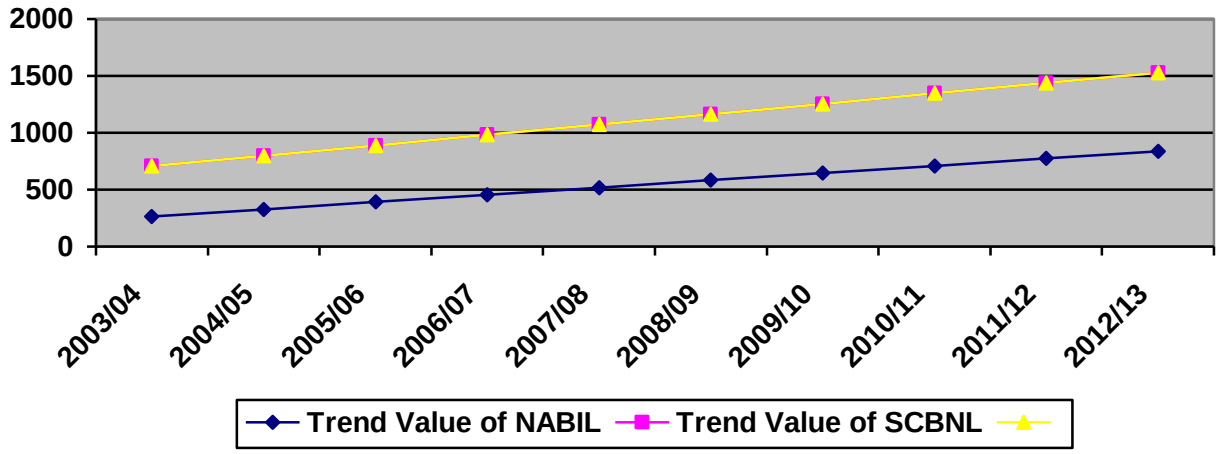
From the above table it is clear that the trend value of both the banks are in increasing trend. The trend value of NABIL will be highest in F/Y 2012/2013 i.e. Rs.838.15 million. In case of SCBNL net profit will be Rs 691.50 million in F/Y 2012/2013, which is the highest under the review period.

Looking at the trend values NABIL would surpass SCBNL in this fiscal itself. It can be said that both the banks have followed the policy of maximizing their net profit.

However, we can draw a conclusion that NABIL has utilized its fund better than SCBNL to earn higher amounts of profit.

Figure No. 4.4

Trend value of Net Profit of NABIL AND SCBNL



C. Test of Hypothesis

Under this topic, an effort has been made to test the significance level regarding the parameter of the population on the basis of sample drawn from the population. The following stops have been followed in the test of hypothesis.

i) Formulating of hypothesis
- Null Hypothesis
- Alternative Hypothesis

ii) Computing the test statistic

iii) Fixing the level of significance

iv) Deciding two tailed or one tailed test

v) Having decision

i) t-test

In this research study the sample is small i.e., n =5. Hence, to deal with small sample 't' test is used. Suppose we want to test if two independent samples have been drawn from two normal population having the same means, the population variances being equal.

We set up the Null hypothesis Ho: μ = μy i.e., the samples have been drawn from the normal population, or the sample means $\bar{x}$ and $\bar{y}$ do not differ significantly. Under the assumption that $a^2 = 6a^2$ i.e., population variances are equal but unknown, the test statistic under Ho is:

$$= \frac{\bar{x} - \bar{y}}{\sqrt{S2 \times \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}} \sim \text{... w.d.f.} \quad n_1 + n_2 - 2$$

Where $\bar{x} = \frac{\sum x}{n_1}$ $\bar{y} = \frac{\sum y}{n_2}$

And $S^2 = \frac{1}{n_1 + n_2 - 2} [\sum (x - \bar{x})^2 + \sum (y - \bar{y})2]$

is an unbiased estimate the common population variance 6^2 based on both the samples. By comparing the tabulated value of 't' for $n_1 + n_2 - 2$ d.f. at the desired level of significance. Usually 5% we reject or retain the mull hypothesis H_o.

(a) Test of Hypothesis on Loan and Advances to Total Deposit Ratio of NABIL and SCBNL.

Let loan and advances to total deposit of NABIL and SCBNL be denoted by X and Y respectively.

Calculated S^2 = 50.96 (for detail see Appendix A_{22})

Solution:

Null Hypothesis (H_0): $\mu_1 = \mu_2$ i.e., there is no significant difference between mean ratio of loan and advances to total deposit of NABIL and SCBNL.

Alternative Hypothesis (H_1): $\mu_1 = \mu_2$ i.e., there is significant difference between mean ratio of loan and advances to total deposit of NABIL and SCBNL.

Test Statistic

Under H_0, the test statistic is

$$t = \frac{\bar{x} - \bar{y}}{\sqrt{S^2\left(\frac{1}{n^1} + \frac{1}{n^2}\right)}} \quad \text{(with ..... d.f. = } n_1 + n_2 - 2\text{)}$$

$$|t| = 8.32$$

Decision:

The tabulated value of t for 8 d.f. at 5%level of significance is 2.306. Since calculated 't' is much greater than tabulated 't' it is highly significant. Hence H_0: $\mu_1 = \mu_2$ is rejected at 5% level of significance and we can conclude that there is significant difference between mean ratios of loan and advances to total deposit of NABIL and SCBNL.

b) Test of Hypothesis on total Investment to Total Deposits Ratio NABIL and SCBNL.

Let, the total investment to total deposit ratio of NABIL and SCBNL be denoted by X and Y.

Calculated S^2 = 50.72 (for detail see Appendix A_{23})

Solution:

Null Hypothesis (H_0): $\mu_1 = \mu_2$ i.e., There is no significant difference between the mean ratios of total investment to total deposit of NABIL and SCBNL.

Alternative Hypothesis (H_1): $\mu_1 \neq \mu_2$ i.e., There is significant difference between the mean ratio of total investment to total deposit of NABIL and SCBNL.

Test Statistic

Under H_0, the test statistic is

$$t = \frac{\bar{x} - \bar{y}}{\sqrt{S^2\left(\frac{1}{n^1} + \frac{1}{n^2}\right)}} \quad \text{(with ..... d.f. = } n_1 + n_2 - 2\text{)}$$

$$|t| = 4.41$$

Decision:

The tabulated value of t for 8 d. of at 5% level of significance is 2.306. Since calculated is more than tabulated value of 't' it is highly significant. Hence H0: $\mu_1 = \mu_2$ is accepted at 5% level of significance and we may conclude that there exists a significant difference between mean ratios of total investment to total deposit of NABIL and SCBNL.

c) *Test Of Hypothesis On Investment in Government Securities to Current Assets Ratio Of NABIL AND SCBNL.*

Let, the total Investment in Government securities to current assets ratio of NABIL and SCBNL be denoted by X and Y.

Calculated $S^2 = 14.52$ (for detail see Appendix A_{24})

Solution:

Null Hypothesis (H_0): $\mu_1 = \mu_2$ i.e., there is no significant difference between the mean ratio of Investment in Government securities to current assets of NABIL and SCBNL.

Alternative Hypothesis (H_1): $\mu_1 \neq \mu_2$ i.e., there is significant difference between the man ratio of Investment in Government securities to current assets of NABIL and SCBNL.

Test Statistic:

Under H_0, the test statistic is

$$t = \frac{\bar{x} - \bar{y}}{\sqrt{S^2\left(\frac{1}{n^1} + \frac{1}{n^2}\right)}} \quad \text{(with ..... d.f. = } N_1 + N_2 - 2\text{)}$$

$|t| = 7.63$

Decision:

The tabulated value of t for 8 d.f. at 5% level of significance is 2.306. Since calculated 't' is greater than tabulated 't' it is significant. Hence null Hypothesis H_o: $\mu_1 = \mu_2$ is rejected at 5% level of significance and we may conclude that there is significant difference between the mean ratios of Investment in Government securities to current assets ratio of NABIL and SCBNL.

d) Test of Hypothesis on Return on Loan and Advance Ratio

Let the return on loan and advance of NABIL and SCBNL be denoted by X and Y.

$S^2 = 0.74$ (for detail see Appendix – A_{25})

Solution:

Null Hypothesis (H_o): $\mu_1 = \mu_2$ i.e., there is no significant difference between the mean ratio of return on loan and advances of NABIL and SCBNL.

Alternative Hypothesis (H_1): $\mu_1 \neq \mu_2$, i.e. there is significant difference between the mean ratio of return on loan and advances of NABIL and SCBNL.

Test Statistic

Under H_0 the test statistic is

$$t = \frac{\bar{x} - \bar{y}}{\sqrt{S^2\left(\frac{1}{n^1} + \frac{1}{n^2}\right)}} \quad \text{(with ..... d.f. = } N_1 + N_2 - 2\text{)}$$

$|t| = 8.84$

Decision:

The tabulated value of 't' at 5% level of significance is 2.306. Since calculated 't' is much greater than tabulated value of 't' it is highly significant. Hence Null Hypothesis Ho: $\mu_1 = \mu_2$ i.e., is rejected and Alternative Hypothesis H_1: $\mu_1 \neq \mu_2$ is accepted at 5% level of significance and we can conclude that there is significant difference between the mean ratio of return on loan and advances of NABIL and SCBNL.

e) Test of Hypothesis on Total Interest Earned to Total Outside Assets:

Let, the total interest earned to total outside assets of NABIL and SCBNL be denoted by X and Y respectively.

Calculated $S^2 = 0.42$ (for detail see Appendix- A_{26})

Solution:

Null Hypothesis (Ho): $\mu_1 = \mu_2$ i.e., there is no significant difference between the mean ratio of total interest earned to total outside assets of NABIL and SCBNL.

Alternative Hypothesis (H_1): $\mu_1 \neq \mu_2$ i.e., there is significant difference between the mean ratio of total interest earned to total outside assets of NABIL and SCBNL.

Test Statistic

Under H_0 the test statistic is

$$t = \frac{\bar{x} - \bar{y}}{\sqrt{S^2\left(\frac{1}{n^1} + \frac{1}{n^2}\right)}} \quad \text{(with ..... d.f. = } N_1 + N_2 - 2\text{)}$$

$$|t| = 4.48$$

Decision:

The tabulated value of 't' at 5% level of significance is 2.306. Since calculated value of 't' is much greater than tabulated value of 't' it is highly significant. Hence, Alternate hypothesis (H_o): $\mu_1 =/ \mu_2$ is accepted at 5% level of significance and we can conclude that there is a significant difference between total interest earned to total outside assets of NABIL and SCBNL.

4.4 Major findings 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 the findings. This will give meaning to the desired result. A comprehensive summary of the major findings of this study is presented below.

The main findings of the study derived from the analysis of financial data of NABIL and SCBNL are given below.

4.4.1 Liquidity Ratio

The liquidity position of NABIL and SCBNL reveals that:

* From the analysis of current ratio it is found that the mean ratio of NABIL is slightly higher than SCBNL. The ratio of both the banks are highly consistent. The mean current ratio of both the banks is greater than 1.

* The mean ratio of cash and bank balance to total deposits of SCBNL is slightly higher than NABIL. SCBNL has better liquidity position than NABIL because of high percentage of liquid assets. This shows SCBNL readiness to meet its customer requirement. On the contrary, a high liquidity also indicates the inability of the bank to mobilize its current assets. The ratios of NABIL are more consistent than SCBNL.

* The mean ratio of cash and bank balance to current assets of SCBNL is slightly higher than NABIL. This shows SCBNL's greater capacity to meet its customer's daily cash requirement than NABIL. The ratios of NABIL are less variable and more consistent than SCBNL.

* The mean ratio of loan and advances to current assets of NABIL is comparatively higher than SCBNL. The variability of ratios of NABIL ratios are more variable than SCBNL.

From the above findings, we can conclude that the liquidity position of SCBNL is comparatively better than NABIL. It has the highest cash and bank balance to total deposit, cash and bank balance to current assets. SCBNL is in a better position to meet its daily cash requirement. NABIL has a higher current ratio, which justifies that it is also capable enough to meet its current obligations. SCBNL's mean investment in Government securities is better than NABIL.

4.4.2 Asset Management Ratio

The asset management ratio of NABIL and SCBNL reveals that:

* The mean ratio of loan and advances to total deposit ratio of NABIL is higher than SCBNL. In terms of consistency both have been stable in their ratios.

* The mean ratio of total investment to total deposits of SCBNL is higher than NABIL. The ratios of SCBNL are more consistent and less variable than NABIL.

* The mean ratio of loan and advances to total working fund of NABIL is higher than SCBNL. The ratios of NABIL and SCBNL are more or less consistent.

* The mean ratio of Investment in Government securities to total working fund ratio of SCBNL is higher than NABIL. The ratios of SCBNL are less variable and more consistent than NABIL.

* The mean ratio of Investment in shares and debentures to total working fund ratio of NABIL is slightly higher than SCBNL. NABIL ratios are more variable than that of SCBNL.

From the above findings we can conclude 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 fund as investment in risk free government securities. NABIL has fared better in purchasing shares and debentures of other companies, but both have invested marginal amount under this heading. Both the banks have successfully managed their assets towards different income generation activities.

4.4.3 Profitability Ratios

The profitability ratios of NABIL and SCBNL reveal that,

* The mean ratio of return on total loan and advances of SCBNL has been found to be significantly greater than NABIL. The ratios of SCBNL are less variable and more consistent than NABIL.

* The mean ratio o return on total working fund of SCBNL is slightly greater than NABIL. The ratios of NABIL are less consistent and more variable than SCBNL.

* The mean ratio of total interest earned to total working fund of NABIL is higher than SCBNL. NABIL's ratios are more stable and less variable than SCBNL.

* The mean ratio of total interest earned to total operating income of NABIL is higher than SCBNL. Both the banks have been fairly consistent in their ratios.

* The mean ratio of total interest earned to total outside assets of NABIL is higher than SCBNL. The ratios of NABIL are more consistent than SCBNL.

* The mean ratio of total interest paid to total working fund ratio of SCBNL is lower than NABIL. SCBNL ratios are less consistent than NABIL ratios.

On the basis of above, we can conclude that SCBNL has been more successful in maintaining its higher return on loan and advances and total working fund. On the other hand, NABIL has been more successful in term of earning power w.r.t. Total working fund and outside assets. NABIL has been more successful in mobilization of its funds in interest bearing assets to earn higher interest income than SCBNL. SCBNL is in a better position than NABIL from interest payment point of view. NABIL

has paid higher interest than SCBNL, whereas the latter seems to have collected its funds from cheaper sources than NABIL.

4.4.4 Risk Ratios

The Risk ratio of NABIL and SCBNL reveals that,

* The mean liquidity risk ratio of SCBNL is lower than NABIL.

* The mean credit risk ratio of SCBNL is lower than NABIL. Both the banks have been fairly consistent in their ratios.

Based on above findings we can conclude that SCBNL has lower liquidity risk and credit risk than NABIL. NABIL has greater exposure to risk in its financial operations than SCBNL.

4.4.5 Growth Ratio

* The mean growth rate of deposits of SCBNL is significantly higher than NABIL.

* The mean growth rate of total loan and advances of SCBNL is higher than NABIL.

* The mean growth rate of total investment of NABIL is significantly higher than SCBNL.

* The mean growth rate of net profit of NABIL is higher than SCBNL.

Based on the above findings, we can conclude that, SCBNL has been more successful in increasing its deposits, loan and advances and investment during the study period, whereas,

NABIL has been more efficient in terms of increasing its net profit. While other banks have initiated a host of measures and schemes to attract customer deposits, NABIL's strategy of shedding deposits seems to be off the tune. NABIL needs to seriously rethink its strategy.

4.4.6. Co-efficient of Correlation Analysis

Co-efficient of correlation analysis between different variables of NABIL and SCBNL reveals that:

* SCBNL has a higher value of coefficient of correlation between deposits and loan and advances than NABIL.

* The co-efficient of correlation between deposits and total investment of SCBNL is slightly higher than NABIL.

* The co-efficient of correlation between outside assets and net profit in case of NABIL is negative, whereas the same variables in case of SCBNL are highly correlated.

* The co-efficient of correlation between deposit and net profit in case of NABIL to negative, where as SCBNL has a higher value of coefficient of correlation.

* The coefficient of correlation between deposits and interest earned in case of SCBNL is negative, whereas NABIL has a higher value of coefficient of correlation.

* The coefficient of correlation between total working fund and net profit in case of NABIL is negative, whereas the same variables are highly correlated in case of SCBNL.

In conclusion, we can say that there is a significant relationship between deposit and loan and advances, deposits and total investment, outside assets and net profit, deposits and net

profit in case of SCBNL, and the relationship is insignificant, deposit and interest earned, loan and advances and interest paid, total assets and net profit.

Incase of NABIL, three exists a significant relationship between deposits and total loan and advances, deposits and total investment, deposits and interest earned, whereas the relationship is insignificant between deposit and net profit, deposit and interest earned, loan and advances and interest paid, total assets and net profit, outside assets and net profit.

4.4.7 Trend Analysis and projection for next five years

The trend analysis of deposits, loan and advances, total investment and net profit and its projection for next five years of NABIL and SCBNL reveals that:

* The deposits of SCBNL has an increasing trend while NABIL'S trend values have a fluctuating trend. The total deposit of NABIL is predicted to be 11975.84 million and that of SCBNL to be 27298.58 million at the end of F/Y 2012/2013. The deposit collection of SCBNL is much better than NABIL.

* The loan and advance of both the banks have an increasing trend. The total loan and advance of NABIL is predicted to be 12418.69 million and that of SCBNL to be 11032.17 million at the end of F/Y 2012/2013. The trend of loan and advances of NABIL is much better compared to SCBNL.

* The total investments of SCBNL has an increasing trend while it is exactly the opposite in case of NABIL. SCBNL seems to have a much-focused policy with regards to total investment than NABIL.

* The net profits of both the banks are in an increasing trend. The net profit of NABIL and SCBNL is predicted at 838.15

million and 691.50 million respectively by the end of F/Y 2012/2013. The position of NABIL with regard to utilization of the fund to earn profit is better than SCBNL.

4.3Z.8 Test of Hypothesis

The test of significance regarding the parameter of the population, on the basis of sample drawn from the population reveals that:

* There is significant difference between mean ratio of loan and advances to total deposit of NABIL and SCBNL.

* There is no significant difference between mean ratio of total investment to total deposit of NABIL and SCBNL.

* There is significant difference between the mean ratio of investment in government securities to current assets ratio of NABIL and SCBNL.

* There is significant difference between mean ratio of return on loan and advances of NABIL & SCBNL.

* There lies an insignificant difference between mean ratio of total interest earned to total outside assets of NABIL and SCBNL.

CHAPTER – V
SUMMARY, COCLUSION AND REOMMENDATION

5.1 SUMMARY

The economic development of a country depends upon the development of commerce and industry and there is no doubt that banking promotes the development of commerce because banking itself is the part of commerce. The process of economic development depends upon various factors, however economists are now convinced that capital formation and its proper utilization plays a paramount role for rapid economic development.

The economic growth was very slow in earlier years. It has caught its full swing with the restoration democracy in the country. At present, overall economic growth rate still decline year by year. Reasons behind this decline are insecure situation faced by industry, decrease in the tourist arrival, drop in the production and export of carpet, garment and pashmina industry and political situation and Maoists insurgency.

The evolution of the organized financial system in Nepal has more recent history than in other countries of the world. In Nepalese context, the history of banking is not more than six decades. After the announcement of liberal and free market economic based policy, Nepalese banks and financial sectors have greater network and access to national and international markets. Commercial banks play a vital role which deals with other people's money and stimulate saving by mobilizing

idle resources to those sectors having investment opportunities. Modern bank provides various services to their customers in view of facilitating their economic and social life.

The objective of the commercial banks is always to earn more profit by investing or granting loan and advances into profitable, secured and marketable sector. But commercial bank should be careful while performing the credit creation function; the banks should never invest its funds in those securities, which are too much fluctuating. Commercial banks must follow the rules and regulations as well as different directions issued by central bank and ministry of finance while mobilization the funds or the commercial banks should invest its funds only those securities, which are legal.

5.2 CONCLUSION

- This study reveals that the current ratio of both the banks is greater than 1, which should be considered satisfactory. The liquidity position of SCBNL is better than NABIL. The cash and bank balance of SCBNL w.r.t. deposits is greater than NABIL. This puts, SCBNL in a better position w.r.t. meeting customer requirement than NABIL. In contrast, a high ratio of non-earning cash and bank balance is an indication of bank's inbility to invest its fund in income generation areas. The cash and bank balance of SCBNL w.r.t. current assets is higher than NABIL. This shows greater capacity of SCBNL to meet its customer's cash requirement but that does not mean NABIL cannot meet its daily customer cash requirement. SCBNL needs to invest its funds in more productive sectors.

- SCBNL has invested more portions of its current assets and total working fund in government securities than NABIL. This is due to lack of other secured and profitable investment sector, whereas NABIL has invested more of its fund in other productive sectors.
- NABIL has been more successful in mobilization of its total deposits and working fund as loan and advances and achieving higher profits in comparison to SCBNL. In contrast, a high ratio is not better from the point of view of liquidity, since loan and advances are less liquid than cash and bank balance.

- NABIL has invested more of its funds in purchasing shares and debentures of other companies than SCBNL.

- From the point of view of profitability, NABIL seems to be more successful than SCBNL w.r.t. Profit earning capacity by utilizing available resources. NABIL has also been more successful in terms of interest earning power. It has been more successful in mobilizing its funds in interest bearing assets to earn higher interest income. SCBNL is in a better position to meet its interest expenses as it has collected its fund from cheaper sources than NABIL.

- The liquidity risk and credit risk of SCBNL is comparatively lower than NABIL. NABIL has more exposure to risk than SCBNL.

- SCBNL has been successful in maintaining a steady growth rate on deposits, investments and loan and advances year after year. The average growth rate of net profit of NABIL is higher than SCBNL. SCBNL's growth in deposits can be accounted to its credibility, image and high quality service.

- From the analysis of coefficient of correlation, we can say that both the banks show positive relationship between deposit and loan and advances, deposits and total

investment. There exists a positive relationship between deposits and net profit, outside assets and net profit in case of SCBNL and also between deposits and interest earned in case of NABIL.

- SCBNL has insignificant relationship between deposits and interest earned, loan and advances and interest paid.

- There is an insignificant relationship between deposits and net profit in case of NABIL.

- The trend value of loan and advances, net profits of NABIL and SCBNL are in an increasing trend. The trend values of deposits and investment of SCBNL are proportionately higher than NABIL in all the years. The trend value of loan and advances of NABIL is proportionately better than SCBNL in all the years.

- From the test of hypothesis, we can say that there exists a significant difference between the mean ratios of loan and advance to total deposit, investment in government securities to current assets, return on loan and advances of NABIL and SCBNL.

- The test of hypothesis on mean ratios of total investment to total deposit, total interest earned to total outside assets show there is no significant difference in the ratios of NABIL and SCBNL except for Total Interest Earned to Total Outside assets.

5.3 RECOMMENDATIONS

On the basis of analysis, findings, following recommendations are made. The banks can make use of these recommendations to overcome their weakness, inefficiency and

improve their present fund mobilization and their overall investment policy.

Increase Deposits

SCBNL, backed by its credibility and high quality service has been able to increase its deposit collection consistently. While other banks are coming up with a host of measures to increase their deposits, NABIL's strategy of selective shedding of unprofitable deposits seems off the tune. NABIL is recommended to rethink its strategy and collect more deposits. Since the past few years, banks have been targeting depositors through a large variety of deposit schemes and facilities. NABIL, itself introduced a saving plus deposit scheme a few years back to target high-end depositors, but the growth in deposits does not look convincing. Like others, it also needs to come up with various incentives, schemes, and facilities to increase deposits. As of now, the minimum balance required to operate an account is Rs. 30000, which is too high. The minimum balance ceiling should be brought down to attract small depositors and entrepreneurs.

Nabil has so far been providing ATM facilities through its own premises. The ATM facilities need further expansion. For this, bank needs to identify potential locations.

Increase Investment in productive sectors

SCBNL has given more priority to invest its fund in government securities and depositors' money has been less utilized as loan and advances. Though securities issued by government are risk free but such instruments yield lower interest rate. SCBNL should identify less risky and profitable investment sectors and invest in them. SCBNL has been following a wait, watch and act

policy towards investment in productive sectors for a long time. Despite the uncertain security and political situation in the country, the macro-economic indicators are good. Once the political and security conditions improve, a good turn-around in the economy is expected and unless SCBNL quickly acts it might be left behind in the race.

Increase Consumer Lending

Currently the size of the consumer lending market is estimated at Rs. 10 billion (Himalayan News Services, March 28). Housing and vehicle finance have become two important and viable sectors with minimum risk. However, the market has not been fully exploited. Retail lending of EBL alone accounts for 20 percent of the total loan portfolio, which is the highest among the commercial banks in Nepal. The sale of automobiles recorded a two-digit growth in the past five years and the real estate business, especially in urban areas is doing much better, thanks to consumer financing. Both NABIL and SCBNL are recommended to increase their investment in consumer loan sector by offering competitive interest rates.

Increase Investment in share and Debentures

Both the banks have invested nominal percentage of its funds in shares and debentures of other companies. They are recommended to invest more in shares and debentures of financial and non-financial companies across different sectors including government comporations. This will encourage overall economic development of the country.

Increase Investment in Deprived and Priority Sectors

NRB has directed the banks to extend a certain percentage of loan and advances to the deprived and priority sector. Both the banks are recommended to adhere to the directives issued by NRB and invest more in these sectors. NRB should also speed up its supervision and monitoring in this regard. It should ensure that such directives are put into practice in letter and spirit.

Commence Margin Lending

The introduction of margin lending by NBL at 6.5% per annum against shares of selected companies can be viewed as a new opportunity for investment. Bank sources claim to have already disbursed over Rupees 2.5 billion in a one and a half year period to margin customers. Since NABIL and SCBNL have sound liquidity position and also as their cost of fund is lower, the banks could embark on margin lending after conducting appropriate feasibility study.

Effective Portfolio Management

Portfolio management refers to the allocation of funds into different components of its assets, having different degree of risk and varying rate of return in such a manner that the conflicting goals of maximum yield and minimum risk can be achieved. The portfolio condition of the banks should be regularly revised from time to time. Appointing an investment specialist as a portfolio manager or assigning the task of portfolio management to Manager Finance and Planning could prove beneficial.

Enhancement of OBS Operation

The fee-based activities include commission, discount and fees. They yield high return to the bank. NABIL is not in a better position with regard to income from off-balance sheet activities. It is recommended to enhance off-balance sheet operations as well.

Increase Branches in Rural Areas

Integrated and speedy development of the country is possible only when competitive banking services reaches nooks and corners of the country. NABIL and SCBNL have shown no interest to open branches in rural areas. Both the banks are recommended to expand their branches and banking services and facilities in rural areas and communities to accelerate their economic development. NRB sould implement policies to encourage banks, which provide extensive services while penalizing those who are not responsive to the banking needs of the community, including the underprivileged.

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Appendix -1

Profile of Concerned Banks

i) NABIL Bank Ltd.

NABIL Bank Ltd. (erstwhile Nepal Arab Bank Ltd.) was established on July 12th 1984 under a technical service agreement with Dubai Bank Ltd., Dubai, which was later, merged with Emirate Bank Ltd., Dubai. NABIL is the first and major joint venture bank in the country with key points of representation all over Nepal. The bank is managed by a team of qualified and highly experienced professionals.

The shareholding are distributed as follows:

- 50% is owned by N.B. International Limited, Ireland.
- 20% is owned by local financial institutions and
- 30% by the Nepalese public.

NABIL is amongst the most successful joint venture organizations in Nepal registering strong growth in balance sheet footing as well as profits year after year. The initial capital of Rs. 30 million, invested in 1984, has grown to Rs.1482 million as at mid July 2005.

The bank provides a complete range of personal, commercial and corporate banking and related financial services through its 16 branches and 2 airport counters, the largest number of braches amongst any JVB"s in Nepal. The bank was able to receive "Bank of Year 2004" award from Financial Times London.

The bank has been a pioneer in introducing modern banking and numerous innovative products into Nepal. It was the first to introduce

consortium finance in Nepal. NABIL is the sole banker to a multitude of International Aid Agencies, NGO's, Embassies and consulates in the Kingdom, which is a compliment to its image and servicing capabilities. NABIL was the first bank to issue credit card in Nepal. NABIL has correspondent banking relationship with banks in 47 countries. NABIL is a member of SWIFT. It has also been providing ATM facilities to its account holders.

ii) Standard Chartered Bank Nepal Ltd.

Nepal Grindlays Bank Ltd. (recently named Standard Chartered Bank Nepal Ltd.) was established in 1987 A.D. as a joint venture bank with 50% of the equity share capital originally owned by ANZ Grindlays Bank, UK that managed and controlled overall activities of the bank. The bank has made significant contribution in the Nepalese banking sector since its inception.

In August 2000, the ownership of ANZ Grindlays Bank, U.K. was transferred to SCB, Australia. Since then, the bank is being managed and controlled by SCBL Australia, as Standard Chartered Bank Nepal Ltd. (SCBNL) in Nepal. SCBL holds 50% of total equity capital investment. Out of 35% of the total equity share capital that was held by NBL, Standard Chartered Bank, UK, now has bought 25%. The general public holds the remaining 25% shares.

The bank is being managed under joint venture & technical services agreement (T.S.A.) signed between SCB and Nepalese promoters. The bank has been providing various banking services to its customers through its braches nation wide. It has four branches including its main branch /corporate office in the Kathmandu valley. The bank is well equipped with the latest technology in the banking sector. It leads the Nepalese list in the best 500 banks of Asia as voted by Fortune magazine. It has some of the best banking professionals in the banking industry in Nepal.

Some of the facilities are listed below.

- Tele-banking

- Credit Card facilities
- Foreign Currency Transaction
- Automated Teller Machines
- Personalized & Corporate Financial services
- SWIFT, TELEX
- Western Union Money Transfer
- Money Gram

The present capital structure of SCBNL is shown below.

(Rs. in million)

Authorized equity share central	339.54
Issued Capital	339.54
Paid up Capital	339.54

Source: Annual Report of SCBNL 2061/62.

Appendix -1

NABIL BANK LTD

(Rs in million)

S.N.	F/Y	2003/04	2004/05	2005/06	2006/07	2007/08
1	Current Assets	18098.96	17732.35	16644.97	16742.67	17027.75
2	Current Liabilities	17226.20	16482.82	15248.44	15263.80	15528.69
3	Cash and Bank Balance	812.91	1051.82	1144.77	970.49	559.38
4	Total Investment	7704.31	8199.51	6031.18	5835.95	4267.23
5	Total Deposit	15839	15506.43	13447.66	14119.03	14587
6	Loan and Advances	8324.44	7801.85	8113.68	8548.66	10947
7	Investment in Government Securities	2732.96	4120.30	3588.77	3672.63	2413
8	Investment on Shares and Debn.	18.82	22.22	22.22	22.22	27.36
9	Total Working Fund	18367.15	17993.20	16668.44	17104.27	17546.89
10	Total Interest Earned	1266.70	1120.18	1017.87	1001.62	1068.74
11	Total Interest Paid	578.36	462.08	317.35	282.95	244
12	Net Profit	291.38	271.64	416.24	455.32	519
13	Operating Income	1573.33	1639.12	1340.50	1333.65	1438.44
14	Total Outside Assets	16028.75	16001.36	14144.26	14384.61	15213.97

Appendix –2

STANDARD CHARTERED BANK NEPAL LTD.

(Rs. in million)

S.N	F/Y	2003/04	2004/05	2005/06	2006/07	2007/08
1	Current Assets	19224.20	18663.02	21101.94	23778.25	22086.48
2	Current Liabilities	18245.18	17207.63	19631.60	22146.32	20311.16
3	Cash and Bank Balance	961.05	825.26	1512.30	2023.16	1111.11
4	Total Investment	9559.18	9275.88	10357.68	11360.33	9702.5
5	Total Deposit	15430.05	15835.75	18755.63	21161.44	19335.09
6	Loan and Advances	5681.35	5696.18	60001.16	6693.86	8420.86
7	Investment in Government Securities	4811.01	5784.72	6722.83	7948.22	7203.06
8	Investment on Share and Debn.	11.195	11.195	11.195	11.195	13.348
9	Total Working Fund	19357.2	18775.27	21304.84	23925.68	22171.24
10	Total Interest earned	1242.92	1013.64	1001.36	1042.18	1058.67
11	Total Interest paid	474.4	299.86	255.15	275.81	254.13
12	Net profit	430.83	479.21	506.93	537.8	539.20
13	Operating Income	1640.26	1446.81	1503.60	1521.16	1573.32
14	Total Outside Assets	15240.53	14974.06	16357.84	18054.19	18123.42

Appendix –3

NABIL BANK LTD

Current Ratio

F/Y	*Current assets*	*Current Liabilities*	*Ratio*
2003/2004	18098.96	17226.20	1.051
2004/2005	17732.35	16482.82	1.076
2005/2006	16644.97	15248.44	1.092
2006/2007	16742.67	15263.80	1.097
2007/2008	17072.75	15528.69	1.097

STANDARD CHARTERED BANK NEPAL LTD

Current Ratio

F/Y	*Current assets*	*Current Liabilities*	*Ratio*
2003/2004	19924.2	18196.01	1.054
2004/2005	18663.02	17150.05	1.085
2005/2006	21101.94	19569.39	1.075
2006/2007	23778.25	22086.20	1.074
2007/2008	22086.48	20311.16	1.087

Appendix –4

NABIL BANK LTD

Cash and Bank Balance to Total Deposit Ratio

F/Y	*Cash & Bank Balance*	*Total Deposit*	*Percentage*
2003/2004	812.91	15839.00	5.13
2004/2005	1051.82	15506.43	6.78
2005/2006	1144.77	13447.66	8.51
2006/2007	970.49	14119.03	6.87
2007/2008	559.38	14587.00	3.83

STANDARD CHARTERED BANK NEPAL LTD

Cash and Bank Balance to Total Deposit Ratio

F/Y	*Cash & Bank Balance*	*Total Deposit*	*Percentage*
2003/2004	961.05	15430.05	6.23
2004/2005	825.26	15835.75	5.21
2005/2006	1512.30	18755.63	8.06
2006/2007	2023.13	21161.44	9.56
2007/2008	1111.11	19,335.09	5.75

Appendix –5

NABIL BANK LTD

Cash and Bank Balance to Current Asset

F/Y	*Cash & Bank Balance*	*Current Asset*	*Percentage*
2003/2004	812.91	18098.96	4.49
2004/2005	1051.82	17732.35	5.93
2005/2006	1144.77	16644.97	6.88
2006/2007	970.49	16742.67	5. 80
2007/2008	559.38	17027.75	3.29

STANDARD CHARTERED BANK NEPAL LTD

Cash and Bank Balance to Current Asset

F/Y	*Cash & Bank Balance*	*Current Asset*	*Percentage*
2003/2004	961.05	19224.20	5.00
2004/2005	825.26	18663.20	4.42
2005/2006	1512.30	21101.94	7.17
2006/2007	2023.16	23778.25	8.51
2007/2008	1111.11	22086.48	5.03

Appendix –6

NABIL BANK LTD

Investment in Government Securities to Current Asset Ratio

F/Y	*Investment in Government Securities*	*Current Asset*	*Percentage*
2003/2004	2732.96	18098.96	15.10
2004/2005	4120.30	17732.35	23.24
2005/2006	3588.77	16644.97	21.56
2006/2007	3672.63	16742.67	21.94
2007/2008	2413.00	17027.75	14.17

STANDARD CHARTERED BANK NEPAL LTD

Investment in Government securities to Current Asset Ratio

F/Y	*Investment in Government Securities*	*Current Asset*	*Percentage*
2003/2004	4811.01	19224.20	25.03
2004/2005	5784.72	18663.02	31.00
2005/2006	6722.83	21101.94	31.86
2006/2007	7948.22	23778.25	33.43
2007/2008	7203.06	22086.48	32.61

Appendix -7

NABIL BANK LTD

Loan and Advances to Current Asset Ratio

F/Y	*Loan and Advance*	*Current Asset*	*Percentage*
2003/2004	8324.44	18098.96	45.99
2004/2005	7801.85	17732.35	44.00
2005/2006	8113.68	16644.97	48.75
2006/2007	8548.66	16742.67	51.06
2007/2008	10947.00	17027.75	64.29

STANDARD CHARTERED BANK NEPAL LTD

Loan and Advances to Current Asset Ratio

F/Y	*Loan and Advances*	*Current Asset*	*Percentage*
2003/2004	5681.35	19224.20	29.55
2004/2005	5676.18	18663.02	30.52
2005/2006	6000.16	21101.94	28.44
2006/2007	6693.86	23778.25	28.15
2007/2008	8420.86	22086.48	38.13

Appendix -8

NABIL BANK LTD

Loan and Advances to Total Deposit Ratio

F/Y	*Loan and Advance*	*Total Deposit*	*Percentage*
2003/2004	8324.44	15839.00	52.56
2004/2005	7801.85	15506.43	50.31
2005/2006	8113.68	13447.66	60.34
2006/2007	8548.66	14119.03	60.55
2007/2008	10947.00	14587.00	75.05

STANDARD CHARTERED BANK NEPAL LTD

Loan and Advances to Total Deposit Ratio

F/Y	*Loan and Advances*	*Total Deposit*	*Percentage*
2003/2004	5681.35	15430.05	36.82
2004/2005	5696.18	15835.75	35.97
2005/2006	6000.16	18755.63	32.00
2006/2007	6693.86	21161.44	31.63
2007/2008	8420.86	19335.09	43.55

Appendix –9

NABIL BANK LTD

Total Investment to Total Deposit Ratio

F/Y	*Total Investment*	*Total Deposit*	*Percentage*
2003/2004	7704.31	15839	48.64
2004/2005	8199.51	15506.43	52.88
2005/2006	6031.18	13447.66	44.85
2006/2007	5835.95	14119.03	41.33
2007/2008	4267.23	14587.00	29.25

STANDARD CHARTERED BANK NEPAL LTD

Total Investment to Total Deposit Ratio

F/Y	*Total Investment*	*Total Deposit*	*Percentage*
2003/2004	9559.18	15430.05	61.95
2004/2005	9275.88	15835.05	58.58
2005/2006	10357.68	18755.63	55.22
2006/2007	11360.33	21161.44	53.68
2007/2008	9702.55	19335.09	50.18

Appendix -10

NABIL BANK LTD

Loan and Advance to Total Working Fund Ratio

F/Y	*Loan and advance*	*Total Working Fund*	*Percentage*
2003/2004	8324.44	18367.15	45.32
2004/2005	7801.85	17993.20	43.36
2005/2006	8113.68	16668.44	48.68
2006/2007	8548.66	17104.27	49.98
2007/2008	10947.00	17546.89	62.39

STANDARD CHARTERED BANK NEPAL LTD

Loan and Advance to Total Working Fund Ratio

F/Y	*Loan and Advance*	*Total Working Fund*	*Percentage*
2003/2004	5681.35	19357.2	29.35
2004/2005	5696.18	18775.27	30.34
2005/2006	6000.16	21304.84	28.17
2006/2007	6693.86	23925.68	27.98
2007/2008	8420.86	22171.24	37.98

Appendix –11
NABIL BANK LTD

Investment in Government Securities to Total Working Fund Ratio

F/Y	*Investment in Government Securities*	*Total Working Fund*	*Percentage*
2003/2004	2732.96	18367.15	14.88
2004/2005	4120.30	17993.20	22.90
2005/2006	3588.77	16668.44	21.53
2006/2007	3672.63	17104.27	21.47
2007/2008	2413.00	17546.89	13.75

STANDARD CHARTERED BANK NEPAL LTD

Investment in Government Securities to Total Working Fund Ratio

F/Y	*Investment in Government Securities*	*Total Working Fund*	*Percentage*
2003/2004	4811.01	19357.2	24.85
2004/2005	5784.72	18775.27	30.81
2005/2006	6722.83	21304.84	31.56
2006/2007	7948.22	23925.68	33.22
2007/2008	7203.06	22171.24	32.49

Appendix -12
NABIL BANK LTD

Investment in Share & Debentures to Total Working Fund Ratio

F/Y	*Investment in Share & Debenture*	*Total Working Fund*	*Percentage*
2003/2004	18.82	18367.15	0.102
2004/2005	22.22	17993.20	0.124
2005/2006	22.22	16668.44	0.134
2006/2007	22.22	17104.27	0.130
2007/2008	27.36	17546.89	0.156

STANDARD CHARTERED BANK NEPAL LTD

Investment in Share & Debentures to Total Working Fund Ratio

F/Y	*Investment in Share & Debenture*	*Total Working Fund*	*Percentage*
2003/2004	11.195	19357.2	0.058
2004/2005	11.195	18775.27	0.060
2005/2006	11.195	21304.84	0.053
2006/2007	11.195	23925.68	0.047
2007/2008	13.348	22171.24	0.060

Appendix -13

NABIL BANK LTD

Return on Loan and Advances Ratio

F/Y	*Net Profit*	*Loan and Advances*	*Percentage*
2003/2004	291.38	8324.44	3.50
2004/2005	271.64	7801.85	3.48
2005/2006	416.24	8113.68	5.13
2006/2007	455.32	8548.66	5.33
2007/2008	519.00	10947.00	4.74

STANDARD CHARTERED BANK NEPAL LTD

Return on Loan and Advances Ratio

F/Y	*Net Profit*	*Loan and Advances*	*Percentage*
2003/2004	430.83	5681.18	7.58
2004/2005	479.21	5696.18	8.41
2005/2006	506.93	6000.16	8.45
2006/2007	537.80	6693.86	8.03
2007/2008	539.20	8420.86	6.40

Appendix -14

NABIL BANK LTD

Return on Total Assets Ratio

F/Y	*Net profit*	*Total Working Fund*	*Percentage*
2003/2004	291.38	18367.15	1.59
2004/2005	271.64	17993.20	1.51
2005/2006	416.24	16668.44	2.50
2006/2007	455.32	17104.27	2.66
2007/2008	519.00	17546.89	2.96

STANDARD CHARTERED BANK NEPAL LTD

Return on Total Assets Ratio

F/Y	*Net profit*	*Total Working Fund*	*Percentage*
2003/2004	430.83	19357.2	2.23
2004/2005	479.21	18775.27	2.55
2005/2006	506.93	21304.84	2.38
2006/2007	537.8	23925.68	2.25
2007/2008	539.20	22171.24	2.43

Appendix -15

NABIL BANK LTD

Total Interest Earned to Total Assets Ratio

F/Y	*Total Interest Earned*	*Total Assets*	*Percentage*
2003/2004	1266.70	18367.15	6.90
2004/2005	1120.18	17993.20	6.23
2005/2006	1017.87	16668.44	6.11
2006/2007	1001.62	17104.27	5.86
2007/2008	1068.74	17546.89	6.09

STANDARD CHARTERED BANK NEPAL LTD

Total Interest Earned to Total Assets Ratio

F/Y	*Total Interest Earned*	*Total Assets*	*Percentage*
2003/2004	1224.92	19357.2	6.42
2004/2005	1013.64	18775.27	5.40
2005/2006	1001.36	21304.84	4.70
2006/2007	1042.18	23925.68	4.36
2007/2008	1058.67	22171.24	4.77

Appendix -16

NABIL BANK LTD

Total Interest Earned to Total Operating Income Ratio

F/Y	*Total Interest Earned*	*Total Operating Income*	*Percentage*
2003/2004	1266.70	1573.33	80.51
2004/2005	1120.18	1639.12	68.34
2005/2006	1017.87	1340.50	75.93
2006/2007	1001.62	1333.65	75.10
2007/2008	1068.74	1438.44	74.30

STANDARD CHARTERED BANK NEPAL LTD

Total Interest Earned to Total Operating Income Ratio

F/Y	*Total Interest Earned*	*Total Operating Income*	*Percentage*
2003/2004	1242.92	1640.26	75.78
2004/2005	1013.64	1446.81	70.06
2005/2006	1001.36	1503.60	66.60
2006/2007	1042.18	1521.16	68.51
2007/2008	1058.67	1573.32	67.29

Appendix -17

NABIL BANK LTD

Total Interest Paid to Total Working Fund Ratio

F/Y	*Total Interest Paid*	*Total Working Fund*	*Percentage*
2003/2004	578.36	18367.15	3.15
2004/2005	462.08	17993.20	2.57
2005/2006	317.35	16668.44	1.90
2006/2007	282.95	17104.27	1.65
2007/2008	244.00	17546.89	1.39

STANDARD CHARTERED BANK NEPAL LTD

Total Interest Paid to Total Working Fund Ratio

F/Y	*Total Interest Paid*	*Total Working Fund*	*Percentage*
2003/2004	474.4	19357.20	2.45
2004/2005	299.86	18775.27	1.60
2005/2006	255.15	21304.84	1.20
2006/2007	275.81	23925.68	1.15
2007/2008	254.13	22171.24	1.15

Appendix -18

NABIL BANK LTD

Total Interest Earned to Total Outside Assets Ratio

F/Y	*Total Interest Earned*	*Total Outside Assets*	*Percentage*
2003/2004	1266.70	16028.75	7.90
2004/2005	1120.18	16001.36	7.00
2005/2006	1017.87	14144.896	7.20
2006/2007	1001.62	14384.69	6.96
2007/2008	1068.74	15213.97	7.02

STANDARD CHARTERED BANK NEPAL LTD

Total Interest Earned to Total Outside Assets Ratio

F/Y	***Total Interest Earned***	***Total Outside Assets***	***Percentage***
2003/2004	1242.92	15240.53	8.16
2004/2005	1013.64	14974.06	6.77
2005/2006	1001.36	16357.84	6.12
2006/2007	1042.18	18054.19	5.77
2007/2008	1058.67	18123.42	5.84

Appendix -19

NABIL

Correlation between Total Deposit and Loan and Advances.

F/Y	**Deposit (X)**	**Loan and Advance (Y)**	**X=(x-$\bar{x}$) (x-14699.83**	**x^2**	**y = (y-$\bar{y}$) (y-)**	**Y^2**	**XY**
03/04	15839.00	8324.44	1139.17	1297708.3	-422.69	178666.84	-481515.77
04/05	15506.43	7801.85	806.6	650603.56	-945.28	893554.28	-762462.85
05/06	13447.66	8113.68	-1252.17	1567929.71	-633.45	401258.90	793187.09
06/07	14119.03	8548.66	-580.8	337328.64	-198.47	39390.34	115271.38
07/08	14587.00	10947.00	-112.83	12730.61	2199.87	4839428.02	-248211.33
	Σx= 73499.12	Σy= 43735.63		Σx^2= 3866300.82		Σy2= 6352298.38	Σxy= 583731.48

Here, N = 5

$\bar{X}$ *=Ex/N =73499.12/5 =14699.83*

$\bar{y}$ *=Ey/N =43735.63/5 =8747.13*

We have,

$\Sigma x^2 = 3866300.82$
$\Sigma y^2 = 6352298.38$
$\Sigma xy = 583731.48$

Calculation of correlation coefficient (r) :

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

r = 583731.48/4955794.23 = 0.1177

or r = 0.1177 $r^2 = 0.0138$

Calculation of Probable error,

$$P.\ Er. = 0.745\ \frac{1-r^2}{\sqrt{N}} = 0.2975$$

Or P. Er= 0.2975 6. P. Er. = 1.7849

Appendix - 20

SCBNL

Correlation between Total Deposit and Loan and Advances.

F/Y	Deposit (X)	Loan and Advance (Y)	X=(x-$\bar{x}$) (x-18103.59	x^2	y = (y-$\bar{y}$) (y-6498.68)	Y^2	XY
03/04	15430.05	5681.35	-2673.54	7147816.13	-817.33	668028.33	2185164.45
04/05	15835.75	5696.18	-2267.84	5143098.27	-802.50	644006.25	1819941.60
05/06	18755.63	6001.16	652.04	425156.16	-497.52	247526.15	-324402.94
06/07	21161.44	6693.86	3057.85	9350446.62	195.18	38095.23	596831.16
07/08	19335.09	8420.86	1231.5	1516592.25	1922.18	3694775.95	2367164.67
	Σx= 90517.96	ΣY= 32493.41		Σx^2= 23583109.44		Σy^2= 1597655.96	Σxy= 6644698.94

Here, N = 5

$\bar{X}$ = *Ex/N =90517.96/5 =18103.59*

$\bar{y}$ = *Ey/N =32493.41/5 =6498.68*

We have,

Σx^2 = 23583109.44
Σy^2 = 5292431.68
Σxy = 6644698.94

Calculation of correlation coefficient (r) :

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

r = 6644698.94/11171928.91 = 0.595

or r = 0.595 r^2 = 0.353

Calculation of Probable error,

P. Er. = $0.6745 \quad \frac{1-r^2}{\sqrt{N}}$

Or, P. Er. = 0.1948 6 P. Er. = 1.17

Appendix - 21

NABIL

Correlation between Total Deposit and Total Investment.

F/Y	Deposit (X)	Total Investment(Y)	X=(x-$\bar{x}$) (x-14699.82)	x^2	y = (y-$\bar{y}$) (y-6407.64)	Y^2	XY
03/04	15839.00	7704.31	1139.18	1297731.08	1296.67	1681353.09	1477140.53
04/05	15506.43	8199.51	806.61	650619.69	1791.87	3210798.1	1445340.26
05/06	13447.66	6031.18	-1252.16	1567904.67	-376.46	141722.13	471388.15
06/07	14119.03	5835.95	-580.79	337317.02	-571.69	326829.46	332031.83
07/08	14587.00	4267.23	-112.82	12728.35	-2140.41	4581354.97	241481.05
	Σx= 73499.12	ΣY= 32038.18		Σx^2= 3866300.81		Σy^2= 9942057.74	Σxy= 3967381.82

Here, N = 5

$\bar{X}$ =*Ex/N =73499.12/5 =14699.82*

$\bar{y}$ =*Ey/N =14699.82/5 =6407.64*

We have,

Σx^2 = 6887773.39
Σy^2 = 30132632.46
Σxy = 12537985.38

Calculation of correlation coefficient (r) :

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

r = 3967381.82/6199918.22 =0.64

or, r = 0.64 r^2 =0.409

Calculation of Probable error,

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

Or, P. Er. = 0.1 6 P. Er. = 0.107

Appendix - 22

SCBNL

Correlation between Total Deposit and Total Investment.

F/Y	Deposit (X)	Total Investment (Y)	X=(x-$\bar{x}$) (x-18103.59)	x^2	y = (y-$\bar{y}$) (y-10051.11)	Y^2	XY
03/04	15430.05	9559.18	-2673.54	7147816.13	-491.93	241995.13	1315194.53
04/05	15835.75	9275.88	-2267.84	5143098.30	-775.23	600981.55	1758097.60
05/06	18755.63	10357.68	652.04	425156.16	306.57	93985.16	199895.90
06/07	21161.44	11360.33	3057.85	9350446.62	1309.22	1714057.01	4003398.37
07/08	19335.09	9702.5	1231.5	1516592.25	-348.61	121528.93	429313.21
	Σx= 90517.96	ΣY= 50255.57		Σx^2= 23583109.46		Σy^2= 2772547.78	Σxy= 7705899.61

Here, N = 5

$\bar{X}$ = *Ex/N =90517.96/5 =18103.59*

$\bar{y}$ = *Ey/N =50255.57/5 =10051.11*

We have,

Σx^2 = 23583109.46
Σy^2 = 2772547.78
Σxy = 7705899.61

Calculation of correlation coefficient (r) :

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

r = 7705899.61/8086117.60

or r = 0.953 r^2 = 0.908

Calculation of Probable error,

$$\text{P. Er.} = 0.6745 \quad \frac{1-r^2}{\sqrt{N}}$$

Or, P. Er. = 0.028 6 P. Er. = 0.167

Appendix - 23

NABIL

Correlation between Outside Assets and Net Profit

F/Y	Outside Assets (X)	Net Profit (Y)	X=(x-$\bar{x}$) (x-15154.59)	x^2	y = (y-$\bar{y}$) (y-390.66)	Y^2	XY
03/04	16028.75	291.38	874.16	764155.71	-99.28	9856.52	-80786.6
04/05	16001.36	271.38.	846.77	707019.43	-119.28	14227.72	-101002.72
05/06	14144.26	416.24	-1010.33	1020766.71	25.58	654.34	-25844.24
06/07	14384.61	455.32	-769.98	592869.20	64.66	4180.92	-49786.90
07/08	15213.97	519.00	59.38	3525.98	128.34	16471.16	7620.82
	Σx= 75772.95	ΣY= 1953.32		Σx^2= 3098337.03		Σy^2= 45390.64	Σxy= -249799.64

Here, N = 5

$\bar{X}$ = *Ex/N =75772.95/5 =15154.59*

$\bar{y}$ = *Ey/N =1953.22/5 =390.66*

We have,

Σx^2 = 3098337.03
Σy^2 = 45390.64
Σxy = -249799.64

Calculation of correlation coefficient (r) :

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

r = -249799.64/375014.00

or r = -0.67 r^2 = 0.44

Calculation of Probable error,

$$\text{P. Er.} = 0.6745 \quad \frac{1-r^2}{\sqrt{N}}$$

Or, P. Er. = 0.17 6 P. Er. = 1.01

Appendix - 24

SCBNL

Correlation between Outside Assets and Net Profit

F/Y	Outside Assets (X)	Net Profit (Y)	X=(x-$\bar{x}$) (x-16550.00)	x^2	y = (y-$\bar{y}$) (y-498.79)	Y^2	XY
03/04	15240.53	430.83	-1309.47	1714711.68	-67.96	4618.56	88991.58
04/05	14974.06	479.21	-1575.94	2483586.89	-19.58	383.38	30856.90
05/06	16357.84	506.93	-192.16	36925.47	8.14	66.26	-1564.18
06/07	18054.19	537.80	1504.19	2262587.56	39.01	1521.78	58678.45
07/08	18123.42	539.20	1573.42	2475650.50	40.41	1632.68	63581.90
	Σx= 82750.04	ΣY= 2493.97		Σx²= 8973462.08		Σy²= 8222.66	Σxy= 240544.65

Here, N = 5

$\bar{X}$ = *Ex/N =82750.04/5 =16550.00*

$\bar{y}$ = *Ey/N =2493.97/5 =498.79*

We have,

Σxy = 240544.65
Σx² = 8973462.08
Σy2 = 8222.66

Calculation of correlation coefficient (r) :

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

r = 240544.65/271635.28

or r = 0.89 r^2 = 0.78

Calculation of Probable error,

$$\text{P. Er.} = 0.6745 \quad \frac{1-r^2}{\sqrt{N}}$$

Or, P. Er. = 0.065 6 P. Er. = 0.39

Appendix - 25

NABIL

Correlation between Total Deposits and Net Profit

F/Y	Total Deposits (X)	Net Profit (Y)	X=(x-$\bar{x}$) (x-14670)	x^2	y = (y-$\bar{y}$) (y-390.72)	Y^2	XY
03/04	15839.00	291.38	1169	1366561	-99.34	9868.44	-116128.46
04/05	15506.43	271.64	836.43	699615.15	-119.08	14180.05	-99602.08
05/06	13447.66	416.24	-1222.34	1494115.08	25.52	651.27	-31194.11
06/07	14119.03	455.32	-550.97	303567.94	64.6	4173.16	35592.66
07/08	14587.00	519.00	-83	6889.00	128.28	16455.76	10647.24
	Σx= 73499.12	ΣY= 1953.58		Σx^2= 3870748.16		Σy^2= 45328.67	Σxy= -293164.55

Here, N = 5

$\bar{X}$ = *Ex/N =73499.12/5 =14670.00*

$\bar{y}$ = *Ey/N =1953.58/5 =390.72*

We have,

Σxy = -293164.55
Σx^2 = 3870748.16
Σy2 = 45328.67

Calculation of correlation coefficient (r) :

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

r =-293164.55/418874.52

or r = - 0.70 r^2 = 0.49

Calculation of Probable error,

$$\text{P. Er.} = 0.6745 \quad \frac{1-r^2}{\sqrt{N}}$$

Or, P. Er. = 0.15 6 P. Er. = 0.92

Appendix - 26

SCBNL

Correlation between Total Deposits and Net Profit

F/Y	Total Deposits (X)	Net Profit (Y)	X=(x-$\bar{x}$) (x-18103.59	x^2	y = (y-$\bar{y}$) (y-498.80)	Y^2	XY
03/04	15430.05	430.83	-2673.54	7147816.13	-67.97	4619.92	181720.51
04/05	15835.75	479.21	-2267.84	5143098.27	-19.59	383.77	44426.98
05/06	18755.63	506.93	652.04	425156.16	8.13	66.10	43099.84
06/07	21161.44	537.80	3057.85	9350446.62	39	1521	119256.15
07/08	19335.09	539.20	1231.5	1516592.25	40.4	1632.16	49752.60
	Σx= 90517.96	ΣY= 2493.97		Σx^2= 22066517.18		Σy^2= 8222.95	Σxy= 318999.93

Here, N = 5

$\bar{X}$ = *Ex/N =90517.96/5 =18103.59*

$\bar{y}$ = *Ey/N =2493.97/5 =498.80*

We have,

$\Sigma xy = 318999.93$
$\Sigma x^2 = 22066517.18$
$\Sigma y2 = 8222.95$

Calculation of correlation coefficient (r) :

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

r = 318999.93/425971.67

or r = 0.75 $r^2 = 0.56$

Calculation of Probable error,

P. Er. = $0.6745 \quad \frac{1-r^2}{\sqrt{N}}$

Or, P. Er. = 0.132 6 P. Er. = 0.79

Appendix - 27

NABIL

Correlation between Total Deposits and Interest Earned

F/Y	Total Deposits (X)	Interest Earned (Y)	X=(x-$\bar{x}$) (x-14699.82)	x^2	y = (y-$\bar{y}$) (y-1095.02)	Y^2	XY
03/04	15839.00	1266.7	1139.18	1297731.07	171.5	29412.25	195369.37
04/05	15506.43	1120.18	806.61	650619.69	25.16	633.03	20294.30
05/06	13447.66	1017.87	-1252.16	1567904.67	-77.15	5852.12	96604.14
06/07	14119.03	1001.62	-580.79	337317.02	-93.4	8723.56	54245.78
07/08	14587.00	1068.74	-112.82	12728.35	-26.28	690.64	2964.91
	Σx= 73499.12	ΣY= 5475.11		Σx^2= 3866300.81		Σy^2= 45411.60	Σxy= 369478.49

Here, N = 5

$\bar{X}$ =*Ex/N =318999.93/5 =14699.82*

$\bar{y}$ =*Ey/N =5475.11/5 =1095.02*

We have,

Σxy = 369478.49
Σx^2 = 3866300.81
Σy^2 = 45411.60

Calculation of correlation coefficient (r) :

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

r = 369478.49/419016.59

or, r = 0.882 r^2 = 0.78

Calculation of Probable Error

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

P. E.r. = 0.067 6 P.E.r. = 0.40

Appendix - 28

SCBNL

Correlation between Total Deposits and Interest Earned

F/Y	Total Deposits (X)	Interest Earned (Y)	X=(x-$\bar{x}$) (x-18103.59)	x^2	y = (y-$\bar{y}$) (y-1071.75)	Y^2	XY
03/04	15430.05	1242.92	-2673.54	7147816.13	171.17	29299.17	-457629.84
04/05	15835.75	1013.64	-2267.84	5143098.27	-58.11	3376.77	131784.18
05/06	18755.63	1001.36	652.04	425156.16	-70.39	4954.75	-45897.09
06/07	21161.44	1042.18	3057.85	9350446.62	-29.57	874.38	-90420.62
07/08	19335.09	1058.67	1231.5	1516592.25	-13.08	171.09	-16108.02
	Σx= 90517.96	ΣY= 5358.77		Σx^2= 23583109.43		Σy^2= 38676.16	Σxy= -478271.39

Here, N = 5

$\bar{X}$ *=Ex/N =90517.96/5 =18103.59*

$\bar{y}$ *=Ey/N =5358.77/5 =1071.75*

We have,

Σxy = -478271.39
Σx^2 = 23583109.43
Σy^2 = 38676.16

Calculation of correlation coefficient (r) :

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

r = -478271.39/955041.42

or, r = - 0.50 r^2 = 0.25

Calculation of P. Er.

$$\text{P. Er.} = 0.6745 \quad \frac{1-r^2}{\sqrt{N}}$$

P. E.r. = 0.23 6 P.E.r. = 1.35

Appendix - 29

NABIL

Correlation between Loan and advances and Interest Paid

F/Y	Outsides Assets (X)	Interest paid (Y)	X=(x-$\bar{x}$) (x-8747.12)	x^2	y = (y-$\bar{y}$) (y-376.94)	Y^2	XY
03/04	8324.44	578.36	-422.68	178658.38	201.42	40570.02	-85136.2
04/05	7801.85	462.08	-945.27	893535.37	85.14	7248.82	-80480.28
05/06	8113.68	317.35	-633.44	401246.23	-59.59	3550.97	37746.68
06/07	8548.66	282.95	-198.46	39386.37	-93.99	8834.12	18653.25
07/08	10947.00	244.00	2199.88	4839472.01	-132.94	17673.04	-292452.04
	Σx= 43735.63	ΣY= 1884.74		Σx^2= 6352298.38		Σy^2= 77876.97	Σxy= -401668.59

Here, N = 5

$\bar{X}$ = *Ex/N =43735.63/5 =8747.12*

$\bar{y}$ = *Ey/N =1884.74/5 =376.94*

We have,

Σxy = -401668.59

Σx^2 = 6352298.38

Σy^2 = 77876.97

Calculation of correlation coefficient (r) :

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

r = -401668.59/703347.53

r = -0.57 r^2 = 0.33

Calculation of Probable Error

P. Er. = $0.6745 \quad \frac{1-r^2}{\sqrt{N}}$

P. Er. = 0.203 6 P. Er. = 1.22

Appendix - 30
SCBNL

Correlation between Loan and advances and interest paid.

F/Y	Loan & Advance (X)	Interest Paid (Y)	X=(x-$\bar{x}$) (x-6498.48)	x^2	y = (y-$\bar{y}$) (y-312)	Y^2	XY
03/04	5681.35	474.4	-817.13	667701.44	162.4	26373.76	-132701.91
04/05	5696.18	299.86	-802.3	643685.29	-12.14	147.38	9739.92
05/06	6000.16	255.86	-498.32	248322.82	-56.14	3151.70	27975.68
06/07	6693.86	275.81	195.38	38173.34	-36.19	1309.72	-7070.80
07/08	8420.86	254.13	1922.38	3695544.86	-57.87	3348.94	-111248.13
	Σx= 32492.41	ΣY= 1560.00		Σx^2= 5293427.76		Σy^2= 34331.49	Σxy= -213305.24

Here, N = 5

$\bar{X}$ = *Ex/N =32492.41/5 =6498.48*

$\bar{y}$ = *Ey/N =1560/5 =312.00*

We have,

Σxy = -213305.24
Σx^2 = 5293427.76
Σy^2 = 34331.49

Calculation of correlation coefficient (r) :

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

r = -213305.24/426299.50

Or, r = -0.50 r^2 = 0.25

Calculation of Probable Error

P. Er. = $0.6745 \quad \frac{1-r^2}{\sqrt{N}}$

P. E.r. = 0.225 6 P.E.r. = 1.35

Appendix - 31

NABIL

Correlation between Total Working Fund and Net Profit

F/Y	Total Working fund (X)	Net Profit (Y)	X=(x-$\bar{x}$) (x-17536)	x^2	y = (y-$\bar{y}$) (y-390.71)	Y^2	XY
03/04	18367.15	291.38	831.15	690810.33	-99.83	9866.45	-82558.13
04/05	17993.2	271.64	457.20	209031.84	-119.07	14177.66	-54438.80
05/06	16668.44	416.24	-867.56	752660.35	25.53	651.78	-22148.81
06/07	17104.27	455.32	-431.73	186390.79	64.61	4174.45	-27894.07
07/08	17546.89	519.00	10.89	118.59	128.29	16458.32	1397.08
	Σx= 87679.95	ΣY= 1953.58		Σx^2= 1839011.90		Σy^2= 45328.67	Σxy= -185642.74

Here, N = 5

$\bar{X}$ = *Ex/N =87679.95/5 =17536.00*

$\bar{y}$ = *Ey/N =1953.58/5 =390.71*

We have,

Σx^2 = -185642.74
Σy^2 = 1839011.90
Σxy = -185642.74

Calculation of correlation coefficient (r) :

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

r = -185642.74/288721.26

r = - 0.643 r^2= 0.413

Calculation of Probable Error

$$\text{P. Er.} = 0.6745 \quad \frac{1-r^2}{\sqrt{N}}$$

P. Er. = 0.177 6 P. Er. = 1.06

Appendix - 32

SCBNL

Correlation between Total Working Fund and Net Profit

F/Y	Total Working fund (X)	Net Profit (Y)	X=(x-$\bar{x}$) (x-21142.85)	x^2	y = (y-$\bar{y}$) (y-498.79)	Y^2	XY
03/04	19357.20	430.83	-1785.65	3188545.92	-67.96	4618.56	121352.77
04/05	18775.27	479.21	-2367.58	5605435.06	-19.58	383.38	46357.22
05/06	21304.84	506.93	161.99	26240.76	8.14	66.26	1318.60
06/07	23925.68	537.80	2782.83	7744142.81	39.01	1521.78	108558.20
07/08	22171.24	539.20	1028.39	1057586.00	40.41	1632.97	41557.24
	Σx= 105714.23	ΣY= 2493.97		Σx^2= 17621950.54		Σy^2= 8222.95	Σxy= 319144.03

Here, N = 5

$\bar{X}$ = *Ex/N =105714.23/5 =21142.85*

$\bar{y}$ = *Ey/N =2347.80/5 =498.79*

We have,

Σxy = 17621950.54
Σx^2 = 29053806.76
Σy2 = 8222.95

Calculation of correlation coefficient (r) :

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

r = 319144.03/380663.13

r = 0.84

r^2= 0.71

Calculation of Probable Error

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

P. Er. = 0.09 6 P. Er. = 0.54