CHAPTER ONE

INTRODUCTION

1.1 General Background

Nepal is one of the landlocked, developing countries. Nepal's geographical location lies between the two Asian giants - India and China. These two countries account for almost half of the world population and have been experiencing the most rapid economic growth in the last decade. Nepal has high population growth rate (2.27%), and low per capita income ($473). The country has been politically unstable in the last decade. The GDP at basic price is estimated to increase by 5.6 percent in 2007/08 compared to a growth of 2.6 percent in 2006/07 (NRB monitory policy 2008). The size of the Nepalese economy is very small. The small size of the economy, low per capita income, low savings (8.01%) and low investment has made an impact on its development. Nepal's economy is predominantly agrarian since about 80% of the population fully or partially depends on income from agriculture. It is estimated that about 31% of the population still live below the poverty line (living Standard Survey: 2005). Thus the country is faced with the challenge of raising saving and mobility it to put it into productive channels. In this context banks and other financial institutions have to play and important role.

1.1.1 Commercial Banking in Nepal

The history of banking in Nepal is quite new. It started with the establishment of Nepal Bank Limited in 1994 under the Nepal Bank Act 1994 B.S. However Nepal Rastra |Bank, the Central Bank of the Country came into existence in the year 2013 B.S. After the adopting the economic liberalization policy a number of commercial banks has been established in Nepal under the Commercial Banking Act 2031B.S. In year 2041 B.S. Nepal Arab Bank Limited (now NABIL Bank) was established as the first joint venture commercial bank in Nepal. After the democracy in 2046 B.S. NRB adopted more liberal policy in establishing the commercial banks in Nepal.

As a result the number of commercial banks have fostered since then and their number stand at 26. Apart from providing different services and facilities to the society they have also been providing modern banking services by introducing new technologies and efficient methods in the banking sector.

1.1.2 Investment policy of commercial banks

The commercial banks have their own role and contribution in the economic development. It is a source for economic development; it maintains economic confidence of various segments and extends credit to people. In simple words investment policy is the proper management of any fund/wealth to maximize the value of it or to obtain the favorable return with minimal risk considering the protection of the investment from inflation, taxes, and other factors. It ensures efficiency on the allocation of fund to achieve the materialistic and economic well-being of the society. Investment is always related with risks and returns. Making money alone cannot be an appropriate objective in itself; the objective should focus on making decent related with risks and returns by recognizing the possible losses. We can say that there is a proportional relation between risk and return for sensible investment strategies. And the investment policy concludes with the identification of the potential categories of financial assets for consideration in the ultimate portfolio.

From the above explanation we can say that investment policy is an important ingredient for the overall economic development. In this regard, the commercial banks also formulate their investment policies which drive to achieve the priority of the commercial sector along with their needs in the context of the whole country's economic development.

1.1.3 Importance of Investment Policy to the Joint Venture Commercial Banks

Financial institutions transfer the resources by mobilizing them from surplus units and in turn lend these funds to deficit units. In this way, the institutions provide savers highly liquid, divisible assets at a lower risk while the investors

receive a large pool of resources. Satisfaction of both lenders and borrowers preferences determines the success of intermediary function of an economy. Investment policy is an important element of overall national economic development because it ensures efficient allocation of funds to achieve the material and economic well being of the society as a whole. The importance of financial institutions has been stressed by R. C. Bryant in these words: “Economists and historians agree that the process of modern economic growth has been closely associated with the expansion and increasing diversification of financial intermediation” (Bryant 1987).

In order to operate a business organization under joint venture basis, there should at least two partners from two different countries. Joint venture banks are the com 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 group of industries or trade to achieve mutual exchange of goods and service for sharing competitive advantage by performing joint investment scheme between Nepalese investors and their parent banks each supplying 50 percent of total in many parts of the world, have come to Nepal with latest technology and advanced management skills. “A joint venture is the role of forces between two or more enterprises for the purpose of carrying out a specific operation (industrial or commercial investment and production or trade.)” (Gupta 1984) Joint venture banks are established by joining forces with ability to achieve a common goal with each of the partners. They are more efficient monetary institution in modern banking fields than other old type of banks in Nepalese context, the primary objectives of these joint venture banks is always to earn profit by investing or granting loan and advances to people associated with trade, business and industry etc.

1.2 Focus of the Study

Investors invest their money in the hope of getting good return. Some investors need succeed while others proper investment management requires careful analysis of risk and return analysis become failure in their goal. Banks and

financial institutions needs sound investment policy. The main focus of the study is to analyze and compare the investment policies of three joint venture banks i.e. NABIL Bank Ltd., Standard Chartered Bank Nepal Ltd. and Himalayan Bank Ltd.

NABIL Bank Ltd., the first joint venture bank in Nepal was established in 1984, under company act 1964. NABIL was incorporated with the objectives of sectors of society. The bank provides a full range of the various sectors of society. The bank provides a full range of commercial banking services through its 19 points of representation across the country and over the 170 reputed correspondent banks across the globe. The highly qualified and experienced team is operating the bank including day-to-day operation and risk management. Bank is fully equipped with modern technologies, which include ATMs, credit cards and state of arts, Internet banking system; Tele banking is international trade, bank guarantee, safe deposit locker, western union money transfer, and automatic teller machine. Its equity configuration showed that Dubai Bank Ltd owned 50 percent equity partner, which was transferred to emirates bank international limited. Later on, Dubai sold its entire 50% holding to national Bank Ltd, Bangladesh.

Standard Chartered Bank Nepal Ltd has been in operation I Nepal since 1987 when it was initially registered as a joint-venture operation. Today the bank is an integral part of Standard Chartered Group who has 75% ownership in the company with 25% ownership in the company with 25% shares owned by the Nepalese public. The bank enjoys the status the largest international bank currently operating in Nepal. The Bank is a leading financial institution in the country. With 11 points of representation (7 Branches) and 9 ATMs across the nation and with over 300 local staff, SCBNL is in a position to service its customers through a large domestic network. In addition to which the global network of Standard Chartered Group gives the Bank the unique opportunity to provide truly international banking in Nepal.

SCBNL offers a full range of banking products and services in Wholesale and Consumer banking, catering to a wide range of customers from individuals, to mid-market local corporate to multinationals and large public sector companies, as well as embassies, aid agencies, airlines, hotels and government corporations. It is the first Bank in Nepal that has implemented the Anti-Money laundering policy and applied the 'Know Your Customer' procedure on all the customer accounts.

Himalayan Bank Ltd. was established as a joint venture bank with Habib bank of Pakistan in 1992 A.D. under the company act 1964. This is the first joint venture bank with maximum share holing by the Nepalese private sector. The bank has five branches inside the Kathmandu valley and also has nine branches outside the Kathmandu valley. The bank will be aggressively opening new branches at different parts of the country to serve its customer better. The Bank, wherever possible, offers tailor made facilities to its clients, based on the unique needs and requirements of different clients. To further extend the reliable and efficient services to its valued customers. The Bank has adopted the latest banking technology. All Branches of HBL are integrated into Globus (developed by Temenos), the single Banking software where the Bank has made substantial investments. This has helped the Bank provide services like 'Any Branch Banking Facility', Internet Banking and SMS Banking. Living up to the expectations and aspirations of the Customers and other stakeholders of being innovative, HBL very recently introduced several new products and services. Millionaire Deposit Scheme, Small Business Enterprises Loan, Pre-paid Visa Card, International Travel Quota Credit Card, Consumer Finance through Credit Card and online TOEFL, SAT, IELTS, etc. fee payment facility are some of the products and services. HBL also has a dedicated offsite 'Disaster Recovery Management System'. Looking at the number of Nepalese workers abroad and their need for formal money transfer channel; HBL has developed exclusive and proprietary online money transfer software- Himal Remit TM.

1.3 Statement of the Problem

Although Nepal has adopted planned development strategies, since the implementation of its first five years plan in 1956, the financial sector has not been responsive enough to meet the growing resources need as aspired by plan. The establishment of commercial banks, the enforcement of priority sector and production sector, lending policies of Nepal Rastra Bank to financial institution does not seem to have had and appropriate impact.

Investment is the most important factor from the shareholder's and bank's management point of view. Several commercial banks have been established in Nepal within a short period of time, sufficient return can not have been earned and strong, stable and appropriate investment policy has no followed. Due to throat-cut competition of financial environment, banks seem to be ready to grant much more loan, advances and other facilities against their client's insufficient deposit. However, subsequent development of commercial banks in quality has not been satisfactory. Majority of the commercial banks is found to be unsatisfactory. The financial loss and managerial responsibilities for their ailing units have to be done by the government. But private banks are running successfully. The joint venture banks are not interested in granting loan to the primary sectors of the economy. Banking is not being easy accessibility of public in remote village area. Private bank have concentrated their operation mainly in town and capital of the country. The present study will try to analyze and examine the investment policy of respected banks. Each and every commercial bank should not run successfully without the conceptual framework of investment policy.

It can be therefore hypothesized that bank portfolio like loans, investment cash reserve deposit and borrowing affects the national income. And also how the government policy affects these variables, such as the effect of an interest rate on the bank portfolio variables is of great concern. Therefore, when monitoring money and credit conditions, the central bank has to keep an eye on the bank portfolio behaviors.

In this study, investment policies of NABIL Bank Ltd, Standard Chartered Bank Nepal Ltd and Himalayan Bank Ltd are compared. As mentioned above following are the major problems that have been identified for the purpose of the study.

1. Are they maintaining sufficient liquidity position?
2. Are the banks funding mobilization and investment policy more effective an efficient?
3. What is the relationship of investment and loan & advances with total deposits and net profit?
4. Does the investment decision affect the total earning of the banks?
5. What are the views and ideas of the financial executives and customers regarding the knowledge on the various aspects of the investment policy adopted by the commercial banks today?

1.4 Objective of the Study

The major objective of the study is to evaluate the investment policy and the fund mobilization of selected joint venture commercial banks in Nepal. The comparative study is analyzed using different financial and statistical tools.

The specific objectives are as follows:

1. To evaluate the liquidity, assets management system, profitability and risk position of the commercial banks.
2. To analyze the comparative study on fund mobilization and investment policies of among joint venture banks.
3. To evaluate the trends of deposit utilization and its projection for future.
4. To analyze the relationship between total investment, deposits, loan and advances and net profit and their comparative study in between commercial banks.
5. To test the significance regarding the parameter of the population on the basis of sample drawn from the commercial banks.
6. To provide various suggestions and recommendations on the basis of findings for further growth of the organization.

1.5 Significance of the Study

Economic development is the first objective of our nation. Capital is one of the prime factors, necessary for the development of the country. A developing nation like Nepal rarely save a large part of its income, thus the possibilities of the domestic capital formation are very small. The major problem of the developing countries is the capital formation and their proper mobilization. For the domestic resource mobilization and economic development of the nation, banking institution definitely contribute and play a vital and gigantic role to build up the confidence of business person for promoting the business and industrialist for encouraging opening new industries. Without the proper development of banking development of the country is impossible. Therefore, the study has significance in particular areas of joint venture commercial banks. It fills the gap in literature and justifies the role of joint venture commercial banks in the economic development of the country.

1.6 Limitations of the Study

The study has been made to evaluate the investment policy of Joint venture commercial banks. This study is simply a partial requirement of MBS program, and the limitations faced while doing this study are as follows:

- The study is mainly based on the secondary data (i.e. published financial documents such as balance sheet, profit and loss account, related books, journals and magazines) so the result of all the analysis depends upon the information provided by the banks.
- The whole study is based on the data of five years period from 2003/2004 to 2007/2008 and hence the conclusion drawn confines only to the above period.
- Out of the numerous affecting factors, profitability of banks only those factors are considered which is related to investment policy.
- The sample taken for the study does represent the whole population of the commercial banks in Nepal. Out of many banks, three banks (NABIL Bank Limited, Standard chartered Bank Nepal limited and Himalayan Bank Limited) are taken for the study.

- Lastly, the time factor is the major limitation of this study, as this has to be completed within a short period of time.

1.7 Organization of the Study

The study contains five chapters. Every chapter are parallel important to some accepts of the study

Chapter 1: Introduction: This chapter comprises of general background, focus of the study, brief profile of the banks under study, significance of the study, objectives of the study, limitations of the study and organization of the study.

Chapter 2: Review of Literature: This section conceptual framework of investment policy, by reviewing relevant previous literature and the studies along. Hence under this section we will refer to various approaches taken by other researchers and related literature on the related topic.

Chapter 3: Research Methodology: The third chapter includes the research design, population and sampling sources of data, data collection techniques, data analysis tools and limitation of the methodology.

Chapter 4: Presentation and Analysis of Data: This part constitutes the tabular and graphical representation of the collected data, their interpretation and analysis using various financial as well as statistical tools. A part from it, summary of the major findings are also presented at the end of the chapter.

Chapter 5: Summary, Conclusion and Recommendations: This chapter contains the summary of the whole study and relevant conclusions were drawn based on the study. A suitable set of recommendations were made at the end of the chapter. Finally an extensive appendices and bibliography are presented at the end of this study.

CHAPTER TWO
REVIEW OF LITERATURE

This chapter includes the review of previous studies and the conceptual framework on the topic and its related areas. It provides the thorough understanding related to the present study by the insight of previous research works and besides it avoids investigating problems that have already been answered. The purpose of the literature review is to find out what other studies have been conducted in one's chosen field of study. Hence, the literature reviews on this study from a comprehensive perspective, moving on to more specific studies done on this topic are presented below:

2.1 Conceptual / Theoretical Framework

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

"Investment means the sacrifice of current dollars for future dollars. Two different attributed are generally involved: time and risk. The sacrifice takes place in the present and is certain. The reward comes later, it at all and the magnitude is generally uncertain. In some cases the element of time predominates (for example, government bond). In other cases risk is the dominant attribute (for example, call option on common stock). In yet both time and risk are important." **William F. Sharpe, Alexander J. Gordon & Jeffery V. Bailey (2002)**

A joint venture bank is an organization designed to make profits and profits are the primary measure of its success, profits are the acid test of the individual bank's performance. Profit is the expenses incurred to operate the business and it is the primary objective of business.

Thus, "profit is the excess amount over cost of operations. In every organization, it is one of the most essential parts to run business smoothly. Profit is the contribution of all factors of production. No company can survive without making profit for longtime. So, it is taken as ultimate measure of its effectiveness for business firms. It is widely accepted principle that 'profit does not happen, it is managed.' An organization should plan its activities for achieving a desired profit" (Mahat, 2003:67).

Profit is a controversial term: it is defined and viewed in different senses by different people considering various aspects. "Usually profit does not happen. Profits are managed before making an intelligent approach to the managerial concept of profit. There are, after all, several different interpretations of the term 'profit'. An economist will say that profit is the reward for entrepreneurship for risk taking. A Labour leader might say that it is a measure of new efficiency labour has produced and that it provides a base for negotiating a wage increase. An investor will view it as a gauge of the return on his or her money. An internal revenue agent might regard it as the base for determining income taxes: the accountant well defined it simply as the excess of a firm's revenue over the expense of producing revenue in a given fiscal period." (Lynch, 1989:254)

2.1.1 Features of Sound Investment Decision

The income and profit of the bank depends upon its lending procedure, lending policies and investment of its fund in different securities. In many causes a sound lending and investment policy is not only prerequisite for the promotion of commercial savings of a backward country like Nepal.

Shakespeare Vaidya has highlighted about the need of the bank and its origin the meaning of the bank mechanism controlling the bank operations loan management and capital management. “Every bank board of directors generally formulates an investment policy statement in order to define the objectives of banks liquidity management and investment portfolio.” Shakespeare Vaidya (1996)

It means that the bank must formulate the guidelines to invest its deposits and capital in various forms of earning assets. Allocation of deposits in different sectors or areas is also known as portfolio management. Investment is the means to earn for the banks. If the banks invest more funds in productive sector, it will generate higher income. So, executive always must practice best decision for the investment. In brief, some important considerations to be adopted by commercial banks for sound investment decisions are shortly explained below:

I. Liquidity

The investment portfolio should remain sufficiently liquid to meet all operating and debt service obligations that may be reasonably anticipated. This can be accomplished by structuring the portfolio in such a way that the securities mature with cash needs to meet the portfolio should consist largely of securities with active secondary or resale markets. A portion of the portfolio also may be placed in bank deposits or repurchase agreements that offer same-day or next day liquidity for short-term funds. To maintain such confidence of the depositors the bank must keep this point in mind while investing its excess funds in different securities, so that it can meet current or short term obligations when they become due for payment.

II. Safety and security

As we all know that the public deposits their money at financial institutions. So that the financial institutions should never forget that the funds, which are going to invest in various sectors is borrowed from depositors on various account. Safety from probable risks must be considered for an investment decision-making. Market risks, price risks, geographical risks, political risks and managerial risks etc always direct the investors to invest. So, proper security mechanism for investment must be cared out for fighting with such risks. The banks must always, invest the funds in such alternatives, which contain safety and security. While investing in different sectors, the risk and return must be analyzed thoroughly. The bank should invest in only those securities, which are commercial, durable and high market valued securities.

III. Profitability

Generally, the profit of bank depends upon the interest rate, volume of loan, tie period of loan and nature of investment in various sectors. So the bank must invest their funds, which generates maximum profit. If the banks are able to maximize the profit the shareholders will be happy because all the profit has been given to shareholders in the form of dividend. A good bank is one who invests most of its funds in different earning assets standing safely from the problem of liquidity i.e. keeping cash reserves to meet day-to-day requirements of the depositors. Hence to achieve its goal it should adopt the principle of profitability while making its investment policy.

IV. Suitability

Banks should always know that why a customer needs loan because if the borrower misuse the loan granted by bank he will never be able to repay loan. In order to avoid such circumstance advances should be allowed to select the suitable burrowers and it should demand all the essential detailed information about the scheme of the project in which the bank is lending for. Bank must keep in mind the overall development plans of the nation and the credit policy of the concerned authority i.e. central bank.

V. Diversification

Diversification is defined as not putting all the eggs in one basket. The bank must not invest the funds in specific sector but it the various sectors so that when something goes wrong in once particular sector other will recover so to minimize risk a bank must diversify its investment on different sectors.

Diversification of loan helps to sustain loss according to the law of average because if securities of a company deprived, there may be appreciation in the securities of other companies. In this way the loss can be recovered.

2.1. 2 Nrb Directives

The directives of NRB must be reviewed while making any decisions. Here, we focus on those which are related to investment function of a commercial bank.

The main provisions established by NRB in the form of prudential norms in the concerned area are basically has been focusing to the deprived and priority sectors. Besides, in course of timely rectification of the existing directives, the NRB has been clarifying, nullifying or modifying the unclear clauses in addition to enforcing new directives. In this action it has defined the provision for deprived and priority sector lending in the following way:

a. Priority Sector and Deprived Sector Lending Program

With the financial liberalization, a policy of phasing out the priority sector lending program has been initiated. However, it has been equally challenging to meet credit demand in rural areas. The priority sector lending program has gradually been phased out since 2002/03. In 2004/05, commercial banks were required to disburse only 2.0 percent of total loans and advances to the priority sectors. However, the deprived sector lending program has been kept unchanged. Newly established commercial banks are required to disburse 0.25 percent and the existing commercial banks are required to disburse 3.0 percent of their loans and advances to deprived sectors Individual credit up to 100000 has been defined as deprived sector credit. Besides, the following directives were enforced in 2004/05 which is directly or indirectly related to lending program of a bank:

- Banks and financial institutions were required to make a loan loss provision of one percent in case of good loans, only if the loan was restructured or rescheduled with hundred percent interest collection. Distribution of dividend to shareholders is not allowed out of profit earned from the use of this facility.
- Banks and financial institutions should maintain minimum capital fund of 11.0 percent (of which, 5.5 percent should be primary capital) of risk weighted assets, instead of 12.0 percent as directed earlier. The downward revision was made in view of the prevailing adverse situation.

Similarly incase of the maintenance of the Monetary policy stance and instruments, Cash Reserve Ratio CRR), a compulsory cash balance to be

maintained by commercial banks at the NRB, was slashed down to 5.0 percent from 6.0 percent. This released additional 2.0 billion loan able fund to commercial banks. The effect of reduction in CRR at the outset of the fiscal year transmitted into short term interest rates. As a result, short term interest rates declined significantly. However the reduction in CRR contributed to bring down the cost of fund of commercial banks. The reduction in CRR and the provision of Standing Liquidity Facility (SLF) provided commercial banks with confidence in liquidity management. These phenomena have developed the base for effective transmission of monetary measures.

2.2 Review of Relevant Studies

Many researchers have conducted their research on the field Commercial Banks especially on their financial performance, and fund mobilization policy, compliance with NRB directives etc. Besides this, there are some books, articles desertions and other relevant study concerned with the Lending and Investment. Some of the relevant studies, their objectives, findings and conclusions and other literature relating to the topic have been reviewed below.

2.2.1 Review of Articles / Journals

Investment policy is determinant factor for the successful existence of every bank. In the Nepalese context, modern concept and practice of investment is now to come. The decision-making units (DMUs) are steel applying traditional way of investments. Some of the multinational companies, joint venture banks are now starting to invest in modern as well as globalize view. For this study, some of the reports, articles World Bank discussion papers, magazines, newspapers etc are analyzed.

Shiba Raj Shrestha (2055), in his article, “Portfolio Management in Commercial Bank Theory and Practice” has focused on the use of the excess funds in the best and profitable investment. But here the question may arise on how to make any best investment decisions - and the answer would be proper portfolio management. Portfolio management basically means to invest funds in various schemes of mutual funds like deposits, shares and debentures for the

investors with surplus income. Basically, the wealthy clients having plenty of surplus funds seek to maximize the return on their fund prepared to take certain amount of risk for this. But due to lack of technical expertise they can't make such investment decision of their own. Primarily, there are only two options for savers/investors, i.e. to use funds either for purchase of financial assets like securities or for purchase of financial assets like land, building etc. while selecting the best mix of investment assets there are things to be considered like; higher comparable return with alternative opportunities available according to the risk of investor, good liquidity with adequate safety on investment, capital gains, tax concessions, flexible investment, etc.

However, Shrestha states that, in order to get success in portfolio management and customer's confidence, the bank should possess: skilled manpower, strong research and analysis team, Proper management information system.

Radhe Shyam Pradhan (1994) in his research, "Financial management Practices in Nepal" has studied about the major features of financial management practices in Nepal. To address his issue, a survey of 78 enterprises was carried out by distributing a multiple questionnaire that question contained on various aspects.

He found that the several finance functions, the most important finance function appeared to be working capital management. While, the least important one is appeared to be maintained good relations with stockholders. The findings reveal that banks and retained earnings are the two most widely used financing sources. Most enterprises do not borrow from one bank only and they do switch between banks to which ever offers best interest rates. Most enterprises find that banks are flexible in interest rates and covenants. He further found that among the bank loans, bank loans of less than one year are more popular in public sector where as bank loans of 1-5 years are more popular in private sectors. In periods of tight money, the majority of private sectors enterprises fell that bank will treat all firms equally while public sector does not feel so. Similarly, he concluded that the majority of enterprises in

traded sector find that banks, interest rate is just right while the majority in non-traded sector find that the same is one higher side.

Bodhi B. Bajrachara (1990) in his article, " Monetary policy & deposit mobilization in Nepal" concludes that the mobilization of domestic saving is one of the prime objectives of the monetary policy in Nepal and for this purpose commercial banks are the active financial intermediary for generating resources in the form of deposit of the private sector and providing credit to the investors indifferent sector of economy.

F. Morris (1990) in his discussion paper, "Latin Americas banking system in the 1980s" has concluded that most of the banks concentrated on compliance with central bank rules on reserve requirements, credit allocation and interest rates. While analyzing loan portfolio quality, operating efficiency and soundness of bank investment management has largely been overlooked. The huge losses now found in the banks portfolio in many developing countries are testimony to the poor quality of this oversight investment function.

He further adds that mismanagement in financial institutions has involved inadequate and over optimistic loan appraisal, tax loan recovery, high risk diversification of lending and investment, high risk concentration, connected and insider lending, loan mismatching. This has led many banks of developing countries to the failure in 1980s.

Sunity Shrestha (1995) has concluded in her study, " portfolio behavior of commercial banks in Nepal," has made specific efforts to analyze the total investment portfolio behavior of commercial banks in Nepal. She addresses that the domestic banks in Nepal are investing mostly on government securities, national saving bonds, debentures and company shares. The resources for investment of banks are related with total deposits, cash reserve, interest rate internally and externally, national income, market value etc variables which definitely influence the investment behavior of commercial banks. On the basis of her finding, the given conclusions are made:

I. Log-linear equation the banks portfolio behavior.
II. GDP of out country related with deposits to be made.

III. The commercial banks are interested to invest on governmental securities, which are influenced by total deposit cash reserve, lending rates etc.

IV. The loan loss ratio been found to increase with low recovery of loan.

Murari Raj Sharma (1998), "Joint venture banks in Nepal, co-existing or growing out" in his own words, it would be definitely unwise for Nepal not to let the Joint Venture Banks operate in the country and not to take advantage of them as additional means of resources mobilization as well as harbinger of new era in banking. But it will certainly be unfortunate for the country to develop Joint Venture Banks and the cost of domestic banks.

Bhagat Bista (2001) in his research paper, " Nepal Adhunik Banking Byabastha: has made an attempt to highlight some of the important indicators, which have contributed to the efficiency and performance of Joint Venture Banks in the field of commercial banks. At the end of the paper he has concluded that the establishment of Joint Venture Banks a decade ago marks beginning of modern banking era in Nepal. The joint venture banks have brought in many new banking techniques such as computerization, hypothecation, consortium finance and modern fee based activities into the economy. These are indeed significant milestone in the financial development process to the economy.

Bishowamber Pyakuryal (1987) in his article, "workshop on banking and national development" writes the present changing context of the economic calls for a substantial revitalization of the resources. How much they have gained over the years depends chiefly on how far they have been able to utilize their resource sin an efficient manner. There fore the task of utilization of resources is as much crucial as the mobilization. The under utilization of resources not only results not only results in loss of on come but also further to discourage the collection of deposits.

2.2.2 Review of Dissertations

As the special guidelines are needed for this study, the researcher of this study has made a quick to several theses with view to gather knowledge part for a goal oriented and successful thesis to prepare. This researcher has found theses uniform to this form TU, NCC library, some of them are analyzed as given below.

Upendra Shrestha (2004) entitled "The investment practices of joint venture banks in Nepal with special reference to Nabil Bank Limited, Standard Chartered Bank Nepal Limited and Nepal SBI Bank Limited" has figured out the problem, conclusion and recommendation as follows:

Commercial Banks are more emphasized to be making loan on short-term basis against movable merchandise. Commercial Banks have a lot of deposits but very little Investment Opportunity. They are even discouraging people by offering very low interest rate and minimum threshold balances. Commercial Bank invests their funds in limited areas to achieve higher amount of profit. This regarded as a very risky step, which may lead to lose in profit as well as principle. The credit extended by commercial Banks to agriculture and industrial sector is not satisfactory to meet the growing need of the present say.

He has concluded that since the liquidity position of Nabil and SCBNL have not found satisfactory, it is, therefore, suggested them to improve cash and bank balance to meet current obligations. SCBNL's Loans and Advances to total deposit ratio is lower at all, it is recommended to follow liberal lending policy for enhancement of fund mobilization. It is recommend to Nepal SBI bank that it have to invest its fund on share and debentures of other companies. It is suggested to enhance off balance sheet transactions, diversifying their investments, open new branches, play merchant banking role and invest their risky assets and shareholder's fund to gain higher profit margin.

Mukunda Prasad Lamichhane (2004) entitled "Investment policy of joint venture banks in Nepal" is relevant proposal for this research. The researcher's

main objective was to study the fund mobilization and investment policy with respect to fee based off balance sheet transactions.

He has carried out for findings that proper investment activities by joint venture banks in Nepal are performed or not. Mr. Lamichhane has found that financial position due to proper investment programmers of NABIL in higher than other JVBs. He also concluded that there is no significant relationship between deposits and total investment in case of NABIL with comparison to other JVBs, due to effective investment policy. He further recommended that before mobilizing fund well, the commercial bank must collect large amount of deposits for more investments. The JVBs must mobilize the funds in different sectors such as purchase share and debentures of the financial or non-financial companies as well as government securities. He pointed that of course; the commercial banks are playing a vital role but not as neat merchant bank. He further advised to the JVBs to keep eyes and mind over open on portfolio management practically. To get the success in banking business, every manager should consider on proper utilization and mobilization of depositors deposits effectively and efficiently.

Upendra Tuladhar (1999) entitled "A study on investment policy of Nepal Grindlays bank Ltd in comparison to other joint venture banks (NABIL and HBL)" is another relevant literature for this proposal research. The researcher's main objectives of study was to study the fund mobilization and investment policy with respect to fee based off balance sheet transactions and to evaluate the growth ratios of loan and advances and total investment with respective growth rate of total deposits and net profit.

Through his research Mr. Tuladhar has found that NGBL has been successful to maintain in the best way both liquidity position and there consistency, among three banks NGBL has successfully managed assets to generate income source of NGBL and it can affect the banks net profit. The researcher has concluded that the joint venture banks of Nepal are not effectively informative to their clients and joint venture banks have given first priority on education sectors while making investment. The poverty stricken and deprived sectors are

given second priority. The reason behind not providing banking facilities to rural areas is that these banks are profit oriented only.

Raja Ram Khadka (1998) entitled "A study on investment policy of NABIL bank in comparison to other joint venture banks of Nepal". The researcher's main objective of study is to find out the fund mobilization and investment policy of NABIL in comparison to other joint venture banks along with other objectives.

Khadka through his research has found that the liquidity and assets management ratio of NABIL is worse than that of NGBL and NIBL and profitability position of NABIL is comparatively not better than other joint venture banks. Growth ratios of NABIL seems to be more successful to increase its source of funds i.e. deposits and mobilization of them seem to be failure to maintain high growth rate of profit. The researcher has concluded that there is significant relationship between deposits and loan and advances as well as outside assets and net profit but no between deposits and total investment incase of NABIL and other joint venture banks. The researcher has stated that NABIL has higher trend value of loan and advances ratio and total investment to total deposits and NABIL is comparatively less successful in on balance sheet operation as well as off balance sheet operation than that of other joint venture banks.

Mr. Prakash Shrestha (2003) entitled "Portfolio Analysis in investment of Nepalese Commercial Banks" has presented that most of the commercial banks gave first priority to invest their resources on loan and advances. So, there was lack of opportunities to investment on corporate securities. All the commercial banks were found to invest in government securities for certainty, ever there is less return. The bank during research time has not applying scientific approach for investment diversification and portfolio management.

Vikram Chandra Gurung (1995) entitled "A financial study of joint venture banks in Nepal, A comparative study of Nepal Grindlays bank and Nepal Indosuez bank Ltd" has found that both joint ventures indicate unsatisfactory in liquidity position and interest coverage ratios. The capital structure of both

banks is extremely levered but thy have been maintaining sound capital adequacy ratio as per NRB directives. In addition of this he has recommended to maintain improved capital structure by increasing equity base. The researcher has further suggested extending their banking facilities even in the rural areas by opening up branches.

Bikram Maharjan (2006) entitled "A comparative study on investment policy of joint venture banks in Nepal with special reference to Nabil bank limited in comparison to standard chartered bank Nepal limited and Himalayan bank limited.

The basis objectives of the study are to review the investment policies of concerned joint venture commercials banks as well as to compose it. The researcher's main objectives is to evaluate the liquidity, assets management system profitability and risk position of the commercial banks Through his research Mr. Maharjan has found that the liquidity position of NABIL is comparative better than SCBNL and HBL. The asset management of NABIL is good enough as compared to that of SCBNL and HBL. It has the highest loan and advances, investment on shares and debentures of other companies from analysis of profitability ratio, it can be concluded that NABIL is comparatively average or in between successful in comparison to other banks. The degree of credit risk is highest in NABIL. It has moderate position in liquidity and capital risk. The trend of total deposit of NABIL shows the lower position and loan and advances is in moderate position and investment is in negative. How ever the most important fact is that the trend of net profit of NABIL shows highest in compared other two banks.

2.3 Research Gap

We have had a plenty of research work done on the topic 'Investment Policy'. Having there is no comparative study on investment policy of NABIL, SCBNL and HBL. The previous researchers have done investigation about the investment policy of other different banks. The concerned banks are the leading joint venture banks of the country having huge market share and their investment activities and significant impact on the national economy. The

above-mentioned works deal on gross concept only. To get more accuracy in result, this study has been conducted to focus on both gross and net concept. The researcher has covered five years (2003/04 to 2007/08) to analyze the liquidity position, profitability position, assets management position as well as risk position also of the concerned banks. This study examines recent secondary financial data using coefficient of correlation, trend analysis and hypothesis test. This subject will throw light on investment policy and suggest the possible measures for the betterment of the bank. An attempt has also been made to show the significance of this study to the shareholders, depositors, customers and general public.

CHAPTER THREE
RESEARCH METHODOLOGY

The main objective of this study is to find out the relationship between investment and other variables which affect investment policy. Keeping this objective in mind we have made an attempt to spell out the research methods followed by us for analytical proposes.

3.1 Research Design

The study attempts to analyze the investment policy techniques adopted by joint venture banks in Nepal. For this, analytical and descriptive research design has been followed. Descriptive research is essentially as a fact finding approach relative largely to present and abstracting generalization by the cross section study of the current situation. Analytical approach is followed to parametric and non-parametric test of data. It is the process of microanalysis and appraisal of the data.

The research design is more prescriptive and less descriptive. Annual reports and financial statements published by related banks and other necessary information were collected form the concerned banks. The study period covers five years accordingly data were collected from the year 2003/2004 to year 2007/2008.

3.2 Population and Sample

Altogether 26 commercial banks are under operation in Nepal. These commercial banks, all listed in Nepal Stock Exchange Limited (NEPSE) form the population of this study. However, three of them have been selected as sample. Population and sample of this study are presented below:

Table No. 3.1

List of Commercial Banks

S. N	Commercial Banks	Operation Date (A. D.)	Head Office
1.	Nepal Bank Ltd.	1937/11/15	Kathmandu
2.	Rastriya Banijya Bank.	1966/01/23	Kathmandu
3.	Agricultural Development Bank Ltd.	1968/01/02	Kathmandu
4.	NABIL Bank Ltd.	1984/07/16	Kathmandu
5.	Nepal Investment Bank Ltd.	1986/02/27	Kathmandu
6.	Standard Chartered Bank Ltd.	1987/01/30	Kathmandu
7.	Himalayan Bank Ltd.	1993/01/18	Kathmandu
8.	Nepal SBI bank Ltd.	1993/07/07	Kathmandu
9.	Nepal Bangladesh Bank Ltd.	1993/06/05	Kathmandu
10.	Everest Bank Ltd.	1994/10/18	Kathmandu
11.	Bank of Kathmandu Ltd.	1995/03/12	Kathmandu
12.	Nepal credit & commerce Bank.	1996/10/14	Siddarthanagar
13.	Lumbini Bank Ltd.	1998/07/17	Narayangadh
14.	Nepal industrial & commercial bank	1998/07/21	Biratnagar
15.	Machhapuchhre Bank Ltd.	2000/10/03	Pokhara
16.	Kumari Bank Ltd.	2001/04/03	Kathmandu
17	Laxmi Bank Ltd.	2002/04/03	Birgunj
18	Siddhartha Bank Ltd.	2002/12/24	Kathmandu
19	Global Bank Ltd.	2007/01/02	Birgunj, Parsa
20	Citizen Bank International Ltd.	2007/06/21	Kathmandu
21	Prime Commercial Bank Ltd.	2007/09/24	Kathmandu
22	Sunrise Bank Ltd.	2007/10/12	Kathmandu
23	Bank of Asia Nepal Ltd.	2007/10/12	Kathmandu
24	DCBL Bank Ltd	2001/01/23	Kathmandu
25	NMB Bank	1996/11/26	Kathmandu
26.	KIST Bank Ltd.	2065/12/03	Kathmandu

Source: http:/brf.nrb.org.np

Out of 26 commercial banks we have selected only three banks, Nabil Bank Limited (NABIL), Standard Chartered Bank Nepal Limited (SCBNL) and Himalayan Bank Limited (HBL). These three banks have been selected as they are high rated joint venture banks in Nepal.

3.3 NATURE AND SOURCES OF DATA

The information used for this study is based on secondary data. The required data were directly obtained from financial statements, such as balance sheet and profit & loss account of the concerned banks. Other sources of information include:

- Annual reports of related companies and security board of Nepal.
- Financial statistics of listed companies, published by security board of Nepal.
- Journals, Government and Non-government publication other supportive books and mostly websites of the companies.
- Other related published and unpublished documents.
- Other necessary information's were collected from various institutions and informal discussion with concerned office and also from websites.

3.4 Data Analysis Tools

In this study, only financial and statistical tools are used for the analysis of data. The procedures of analyzing data are described as bellow:

3.4.1 Financial Tools and Techniques

The financial ratio basically contributes to identify the banks' strength and weakness on its financial fact, by expressing the relationship between the different prospects under its balance sheet and profit and loss account. It shows basically the mathematical relationship between different accounting figure of the financial statements/accounts which in turn highlights the key aspects of the firm's operation and its financial performance so far. Financial tools like ratio analysis have been used in this study.

3.4.1.1 Ratio Analysis

Financial ratio analysis is a widely and frequently used tool of financial analysis. It is possible only when the relationships between two figures are meaningful or some reference can be drawn from such relationship. There are many ratios, only those ratios have been covered which are related to investment operation of the banks. The study contains following ratios.

1. Liquidity Ratios

Liquidity ratios are the ratios that provide the quick measure of the liquidity position or the ability of the firm to meet its current obligations. Under liquidity ratios the following ratios have been used:

A. Current Ratio
B. Cash and Bank Balance to Current Assets Ratio
C. Cash and bank Balance to Total Deposit Ratio
D. Investment on Government Securities to Current Assets Ratio
E. Loan and advances to current assets ratio

2. Assets Management Ratios

The bank or any firm has to manage the resources in a good way otherwise it's very difficult to run. Assets management ratio measures how efficiency the banks manages the resources at its command. The following ratios are used under it.

A. Loan and Advances to Total Deposit Ratio
B. Total Investment to Total Deposit Ratio
C. Loan and advances to Total Working fund Ratio
D. Investment on Government Securities to Total Working Fund Ratio
E. Investment on Shares and Debenture to Total working Fund Ratio
F. Total OBS Operation to Loan and Advances Ratio
G. Loan Loss Ratio

3. Profitability Ratios

The firm should earn profits to survive and grow over the long period of time but not at the cost of employees, customers and society. Obviously, if the firm in not able to make reasonable profits form its operation, it will not run for long time. The profitability ratios are used as a measure to judge the operating efficiency (success or failure) of any firm. Profitability ratios are usually computed by relating it either sales or investment as listed below. Only profitability ratios on the basis of investment are used.

I. Profitability Ratios on the basis of Sales

i. Gross profit margin
ii. Net profit margin
iii. Operating expenses ratio

II. Profitability Ratios on the basis of Investment

A. Return on Loan and Advances
B. Return on Total Working Fund Ratio
C. Return on Equity Ratio
D. Total Interest Earned to Total Working Fund Ratio
E. Total Interest Earned to Total Operating Ratio
F. Total Interest Earned to Total Outside Assets Ratio
G. Total Interest Paid to Total Working Fund Ratio

4. Risk Ratios

In this study, three major important risk ratios were computed and compared among the banks during the span of five years period. Following ratios are used as bellow:

A. Liquidity Risk Ratio
B. Credit Risk Ratio
C. Capital Risk Ratio

5. Growth Ratios

In Nepal, the financial institutions have grown very slowly in terms of numbers of bank branches. With the introduction of foreign banks in Nepal, financial intermediaries' function has been geared up to a significant extent. The following growth ratios are calculated to examine and analyzed the expansion and growth of the banks business.

a. Growth ratio of total deposits.
b. Growth ratio of loan and advances.
c. Growth ratio of total investment.
d. Growth ratio of net profit.

3.5.2 Statistical Tools

Statistical tools are also very important tools for the analysis. Some important statistical tools are used in this study to achieve the objectives. Statistical tools such as standard deviation, coefficient of variation, least square linear trend and hypothesis testing have been used. They are as follows.

A. Arithmetic Mean
B. Standard Deviation
C. Coefficient of Variance
D. Correlation of Coefficient Analysis
E. Trend Analysis
F. Test of Hypothesis

Research methodology and the various financial and statistical tools discussed above have been used in the next chapter to analyze and interpret the data regarding the three joint venture banks for the study from the F/Y 2003/2004 to 2007/2008.

CHAPTER IV
PRESENTATION AND ANALYSIS OF DATA

In this chapter an attempt has been made to analyze and evaluate the financial information, which have an impact on investment management and fund mobilization of NABIL, SCBNL and HBL. In this study only those ratios are calculated and analyzed that are important in evaluating the fund mobilization of commercial banks.

4.1 Financial Tools

Financial analysis involves identifying the financial strength and weakness of the organization by presenting the relationship between items of balance sheet. Ratio analysis has been used for this purpose. There are various financial ratios related to investment management and fund mobilization, have been presented and discussed in order to evaluate and analyze the performance of three joint venture banks. The ratios are designed and calculated to highlight the relationship between financial items and figures. These calculations are based on financial statements of concerned joint venture banks. The financial ratios that are calculated for the purpose of this study are as follows:

A. Liquidity Ratio
B. Asset Management Ratio
C. Profitability Ratio
D. Risk Ratio
E. Growth Ratio

4.1.1 Analysis of Liquidity Ratios

Liquidity ratio measures the firms' capability to meet its current obligation. A commercial bank must maintain its satisfactory liquidity position in order to meet the credit need of the community, demand for the deposit withdrawals, pay maturity in time and convert non cash assets into cash to satisfy immediate need without loss to bank and consequent impact on long -run profit The following ratios which measure the liquidity position of banks are calculated.

I. Current Ratio

This is a crude measurement of liquidity ratio. It measures the ratio between total current assets and total current liabilities. It gives only the short glimpses on the liquidity position of a firm. It indicated the extent to which the claims of short-term creditors are covered by asset expected to cover to cash in the near future. Generally, accepted current ratio is 2:1, however, it is accepted 1:1 too for banking and seasonal business. Current ratio is calculated by dividing current assets by current liabilities. The current assets include cash and bank balance with cheques in hand, balance with NRB, money at call and short notices, Investments in government securities, bills purchased and discounted, Loans and Advances and other current assets, Similarly, current liabilities includes borrowings from other banks, deposits, bills payable, and other current liabilities. Table 4.1 shows the current ratios of the banks for various years.

Table No. 4.1

Current Ratio (Times)

F/Y	NABIL	SCBNL	HBL
2003/04	1.08	1.06	1.04
2004/05	1.06	1.08	1.03
2005/06	1.08	1.06	0.42
2006/07	1.06	1.08	0.42
2007/08	1.05	1.08	1.05
Mean	1.072	1.066	0.762
S. D.	0.0098	0.012	0.2846
C.V.	0.91	1.13	37.35

Source: Appendix A - 1

It is clear from the above table that NABIL, SCBNL and HBL have maintained current assets more than their current liabilities. All the three banks have maintained correct ratio at one doing the years under study except for HBL during the FY 2005/06 and 2006/07 This is clearly an indication that they are capable to meet their current obligations.

The averages mean ratio of NABIL and SCBNL is higher than HBL. HBL's average ratio is less them one. This shows that liquidity position of NABIL and SCBNL is better than that of HBL. From the view point of C.V. it suggests that NABIL has more consistency in its ratios. HBL's record is inconstant. Though as per the conventional rule, current ratio should be 2:1 but for banks and other financial institutions any current ratio above 1 is considered healthy and sound. However the ratio of HBL is less than 1.00 in the F/Y 2005/06 & 2006/07 which is not good. Thus, it can be concluded that the liquidity position of NABIL is satisfactory than others.

II. Cash and Bank Balance to Total Deposit Ratio

Cash and bank balance is said to be assets that represent the banks first line of defense. The ratio between the cash and bank balance and total deposit measures the ability of banks to meet its unanticipated calls on all types of deposits. Higher ratio indicates the greater ability to meet the sudden demand of deposits and vice versa. But too, high ratio is undesirable since capital will be tied up and it will be higher the opportunity cost of fund to the bank. This ratio is calculated by dividing cash and bank balance by total deposits.

The cash and bank balance to total deposits ratio of NABIL, SCBNL and HBL are presented below:

Table No. 4.2

Cash and Bank Balance to Total Deposit Ratio

F/Y	NABIL	SCBNL	HBL
2003/04	6.87	9.56	9.09
2004/05	3.83	5.75	8.12
2005/06	3.26	5.53	6.48
2006/07	6.00	8.20	5.85
2007/08	8.37	6.89	4.55
Mean	5.666	7.186	6.804
S. D.	1.8991	1.5201	1.5961
C.V.	33.52	21.16	23.46

Source: Appendix A - 2

The above table shows that the ratio of cash and bank balance to total deposits of NABIL and SCBNL is fluctuating trend, whereas HBL's ratio is declining. NABIL has the highest ratio of 8.37% in the F/Y 2007/08 and lowest ratio of 3.26% in the F/Y 2005/06. SCBNL has the highest of 9.56% in F/Y 2003/04 and the lowest of 5.53% in F/Y 2005/06. Similarly, HBL has recorded highest ratio of 9.09% and lowest ratio of 4.55% in the F/Y 2007/08 respectively. The average mean ratio of SCBNL is higher than NABIL and HBL. The mean ratio of NABIL is the lowest. This shows SCBNL readiness to meet customer requirement better than NABIL and HBL. In comparison of C.V, SCBNL seems to be more consistency and NABIL seems to be less consistency because SCBNL has less and NABIL has high C.V.

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

In conclusion we can say that NABIL is not in a good position in maintaining cash and bank balance. Though, it has invested more funds in other sector which is quite good to earn high income.

III. Cash and Bank Balance to Current Assets Ratio

This ratio examines the banks liquidity capacity on the basis if its most liquid assets i.e. cash and bank balance. This ratio reaches the ability of the banks to make the payment of its customer deposits. High ratio indicates the sound ability to meet their daily cash requirement of their customer deposit and vice versa. But higher ratio is not desirable as the bank has to pay interest on deposits and some earning may be lost. Similarly, lower ratio is also not preferable as the bank may fail to make the payment against the cheques presented by the customers. This ratio is calculated by dividing cash and bank balance by current assets. The cash and bank balance to current assets ratio are presented in the following table.

Table No. 4.3

Cash and Bank Balance to Current Assets Ratio (%)

F/Y	NABIL	SCBNL	HBL
2003/04	5.92	8.61	8.19
2004/05	3.41	5.10	7.44
2005/06	2.88	5.02	15.83
2006/07	5.25	7.06	14.97
2007/08	7.38	6.10	0.93
Mean	4.968	6.394	9.47
S. D.	1.6487	1.3405	5.4641
C.V.	33.19	20.96	57.7

Source: Appendix A - 3

The above table shows that the cash and bank balance to current assets all three banks NABIL, SCBNL and HBL are in fluctuating trend. NABIL has maintained the highest ratio of 7.38% in the F/Y 2007/08, and the lowest ratio of 2.88% in the F/Y 2005/06. Similarly, SCBNL has recorded the highest ratio of 8.61% in F/Y 2003/04 anticipating higher cash requirement depositors in this F/Y. It has recorded the lowest ratio of 5.02% in F/Y 2005/06. HBL has maintained the highest ratio of 15.83% and the lowest ratio of 0.93% in the F/Y 2007/08 respectively.

The averages mean ratio of NABIL is lower than SCBNL and HBL. The C.V. of HBL is greater than other two banks. It shows SCBNL ratio is less consistency than that of NABIL and SCBNL. All the banks have fared well in meeting their depositor's daily cash requirement and investing the surplus fund in other productive areas. Comparatively, NABIL is not in good position to maintain cash and bank balance. It has invested more funds in other sectors.

The three ratios calculated and presented in tables 4.1, 4.2 and 4.3 are all in isolated forms. Ratios interpreted in an isolated form do not give us a correct picture. Then we have wedge and humble attempt to group their ratios and interpret.

IV. Investment on Government Securities to Current Assets Ratio

Every commercial bank is interested to invest their collected funds on different securities issued by government in different times to utilize their excess funds and for other purpose. Though, government securities are not so much liquid as cash and bank balance. They can be easily sold in the market or they can be converted into cash on other ways. This ratio helps to examine that portion of banks current assets, which is invested on different government securities. This ratio is calculated by dividing investment on government securities by current assets. The investment on government securities to current assets ratio are presented in below:

Table No. 4.4

Investment on Government Securities to Current Assets Ratio (%)

F/Y	NABIL	SCBNL	HBL
2003/04	22.41	33.83	14.04
2004/05	14.73	33.03	20.21
2005/06	10.51	33.96	47.42
2006/07	18.02	24.81	54.94
2007/08	12.83	24.56	4.81
Mean	15.7	30.038	28.282
S. D.	4.1598	4.3830	19.4661
C.V.	26.5	14.59	68.83

Source: Appendix A - 4

The above table clearly depicts that the investment on Government securities to current assets of NABIL and SCBNL have in fluctuating trend. The ratio of HBL is in increasing trend up to 2006/07 and then, it is decreased by 50.12 points.

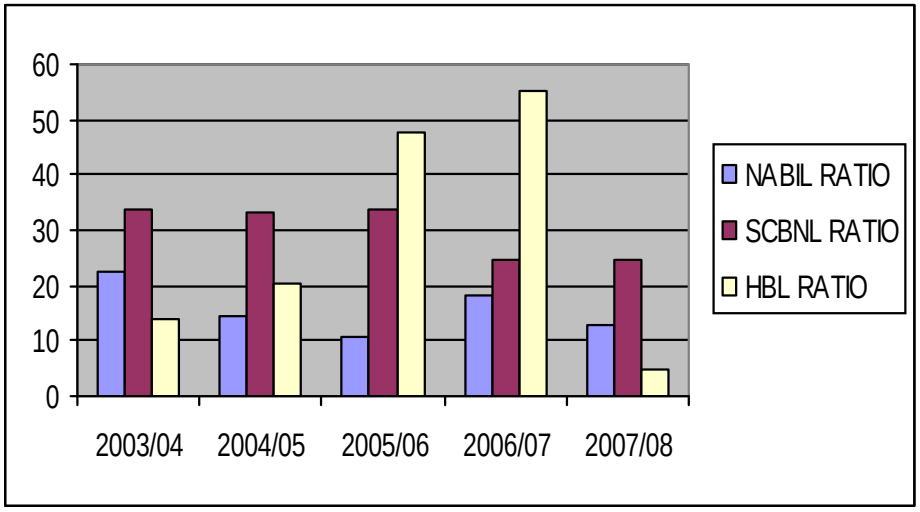
From the above five years picture, it is evident that the average mean ratio of SCBNL is higher than that of other two sample banks. This shows that the greater portion of current assets of SCBNL comprises on government securities. Also, SCBNL's investments on government securities to current assets have an increasing trend over the years. HBL trend is moderate position,

which is lower than SCBNL and higher than NABIL. From the point of view of C.V. SCBNL's ratios have been more consistency and HBL has less consistency and uniformity. From the above analysis it is clear that NABIL and HBL 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 2003/04 shows that total fund invested in government securities is more than the loan & advances it has made.

In conclusion viewing from C.V. we can say that NABIL'S liquidity position from investment on government securities is better than HBL and poorer than SCBNL. Investment on government securities of NABIL, SCBNL and HBL is graphically shown as follows:

Figure No. 4.1

Investment on Government Securities to Current Assets Ratio (%)



V. Loan and Advances to Current Assets Ratio

Loan and advances are the main sources of income and profitable assets for every bank. Every bank is willing to lend as more as possible. This ratio shows the relationship between loan and advances and current assets. This ratio is calculated by dividing total loan and advances by current assets. The ratios of loan and advances to total current assets are presented in the following table.

Table No. 4.5

Loan and Advances to Total Current Assets Ratio (%)

F/Y	NABIL	SCBNL	HBL
2003/04	49.98	27.28	48.93
2004/05	64.60	37.34	45.92
2005/06	58.99	35.13	134.97
2006/07	58.27	36.67	144.67
2007/08	59.00	41.41	12.55
Mean	58.168	35.566	77.408
S. D.	4.6860	4.6339	52.6244
C.V.	8.06	13.03	67.98

Source: Appendix A - 5

The above table clearly shows favorable increasing trend of HBL up to F/Y 2006/07. The average mean ratio of HBL is highest in comparison to other banks. SCBNL has decreasing trend in to 2005/06 and then it has increased. NABIL has a fluctuating trend. NABIL has the highest ratio of 64.60% in the F/Y 2004/05 and the lowest ratio of 49.98% in F/Y 2003/04. Similarly SCBNL has experienced the highest ratio o 41.41% in F/Y 2007/08 and the lowest of 27.28% in the F/Y 2003/2004. Similarly, HBL has maintained the highest ratio of 144.67% and the lowest of 12.55% in the F/Y 2007/08 respectively. In the point of view C.V, NABIL seems to be more consistency and HBL seems to be less consistency.

The above analysis reveals that HBL has been more successful in identifying profitable investment sectors and increasing its earning. 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. HBL also has made successful loan and advances.

The three ratios calculated and presented in tables 4.4 and 4.5 are all in isolated forms. SCBNL's liquidity position form investment on government securities is better than NABIL and HBL. On the view form loan and advances to current assets ratio HBL has made successful than two banks.

4.1.2 Analysis of Assets Management Ratios

A commercial bank must be able to manage its assets very well to earn high profit to satisfy its customers and for its own existence. This ratio measures how efficiently the bank manages the resources at its command. The following ratios are used under this ratio.

I. Loan and Advances to Total Deposit Ratio

This ratio shows the relationship between loans and advances which are granted and the total deposit collected by the banks. This ratio actually measures the extent to which the banks are successful to mobilize their total deposits on loan and advances. This ratio is calculated by dividing loan and advances by total deposits.

Table No. 4.6

Loan and Advances to Total Deposit Ratio (%)

F/Y	NABIL	SCBNL	HBL
2003/04	58.01	30.29	54.30
2004/05	72.57	42.12	50.07
2005/06	66.79	38.75	55.27
2006/07	66.60	42.61	56.57
2007/08	66.94	46.12	61.23
Mean	66.182	39.976	55.488
S. D.	4.6628	5.3770	3.6043
C.V.	7.05	13.45	6.5

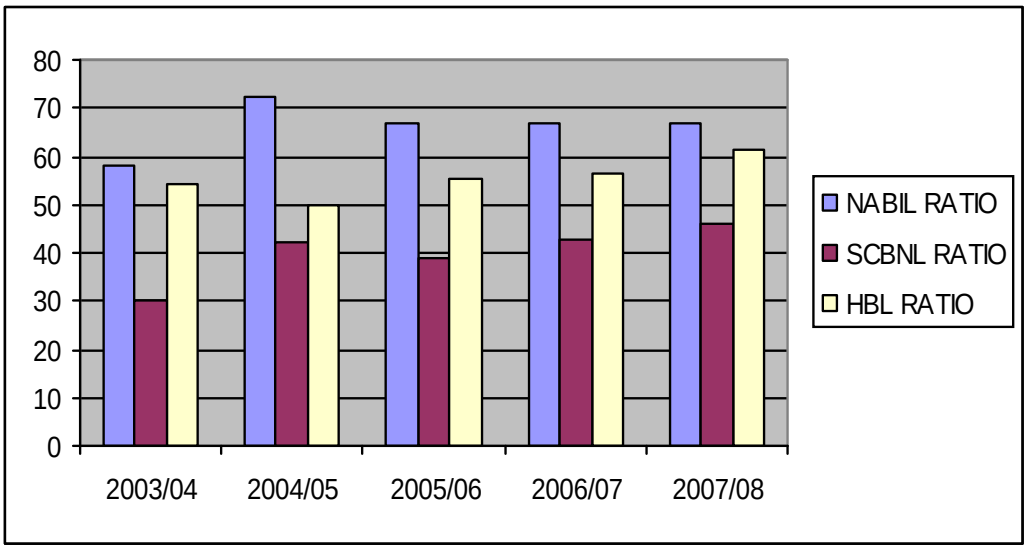
Source: Appendix B - 1

The above table shows that loan and advances to total deposit of all three banks have a fluctuating trend. NABIL has the highest ratio of 72.57% in the F/Y 2004/05 and the lowest ratio of 58.01% in the F/Y 2003/04. Accordingly, SCBNL has the highest of 46.12% and the lowest of 30.29%. HBL has the highest ratio of 61.23% in the F/Y 2007/08 and the lowest ratio of 50.07% in the F/Y 2004/05. The mean ratio of NABIL is higher than SCBNL and HBL. NABIL seems to be strong in terms of mobilizing on its total deposits as loan and advances when compared to SCBNL and HBL.

In terms of C.V. SCBNL seems to be less consistency but HBL has the lowest ratio of all so it seems to be more consistency. It can be concluded that, SCBNL has been more successful in mobilizing its total deposit as loan and advances. 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 advances 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. Loan and advances to total deposit ratio of NABIL, SCBNL and HBL is graphically shown as follows:

Figure No. 4.2

Loan and Advances to Total Deposit Ratio (%)



II. Total Investment to Total Deposit Ratio

The commercial banks are interested to invest its funds in different securities issued by government and other financial or non-financial companies. This ratio measures the extent to which the banks are able to mobilize their deposit on investment in various securities. High ratios indicate the high success in mobilizing deposit in securities and vice versa. This ratio is calculated by dividing total investments by total deposits. The data tabulated below shows the total investment to total deposit ratio.

Table No. 4.7

Total Investment to Total Deposit Ratio

F/Y	NABIL	SCBNL	HBL
2003/04	41.33	53.68	42.22
2004/05	29.25	50.18	47.12
2005/06	31.93	55.67	41.10
2006/07	38.32	54.99	39.35
2007/08	31.14	46.74	41.89
Mean	34.394	52.252	42.336
S. D.	4.6183	3.3435	2.5901
C.V.	13.43		6.12

Source: Appendix B - 2

The above table shows a highly fluctuating trend in total investment to total deposit of NABIL and HBL. But SCBNL has decreasing trend. NABIL has the highest ratio of 41.33% and the lowest ratio of 29.25%. SCBNL, on the other hand has the highest ratio of 55.67% and the lowest ratio of 46.74% in F/Y 2003/04 and 2004/05 respectively. Similarly, HBL has the highest ratio of 47.12% in the F/Y 2004/05 and the lowest ratio of 39.35 in the F/Y 2006/07. SCBNL has higher mean ratio than NABIL and HBL. From mean ratio perspective, SCBNL has been more successful in mobilization of deposit on various forms of investment. From view point of C.V, HBL seems to more consistency and NABIL seems to be less consistency.

In conclusion, we can say that SCBNL has been more successful in mobilizing its resources on various forms of investment.

III. Loan and Advances to Total Working Fund Ratio

The main purpose of this ratio is to examine how broad area the bank has covered to provide its service efficiently. Each commercial banks working fund should play vital role on profit generating through fund mobilizing its total asset as loan and advances in appropriate levels. This ratio measures the extent to which the commercial banks are success in mobilizing their assets on loan and advances for the purpose of income generation. A higher ratio preferable as

it includes better mobilization of fund as loan and advances and vice versa. 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.

Table No. 4.8

Loan and Advances to Total Working Fund Ratio (%)

F/Y	NABIL	SCBNL	HBL
2003/04	48.91	27.11	48.27
2004/05	61.60	37.19	45.31
2005/06	57.87	34.68	49.70
2006/07	57.04	36.73	50.71
2007/08	57.54	41.15	53.90
Mean	56.592	35.372	49.578
S. D.	4.1672	4.6319	2.8250
C.V.	7.36	13.09	5.7

Source: Appendix B - 3

From the above table, the loan and advances to total working fund ratio of NABIL, SCBNL and HBL are in fluctuating trend. NABIL has maintained the highest ratio of 61.60% in F/Y 2004/05 and the lowest ratio of 48.91% in F/Y 2003/04. Similarly, SCBNL has maintained the high ratio of 41.15% in the F/Y 2007/08 and the lowest ratio of 27.11% in F/Y 2003/04. HBL has the highest ratio of 53.90% and the lowest ratio of 45.31% in the F/Y 2004/05 respectively.

If mean ratio is considered, NABIL has the highest ratio of loan and advances to total working fund than both banks. It reveals the strength of NABIL in mobilizing its total assets as loan and advances. According to view point of C.V, SCBNL is 13.09% which is higher than NABIL and HBL. It proves that its ratios are less stable and consistent than NABIL and HBL.

From above analysis, it can be concluded that NABIL is in strong position in term of mobilizing the loans and advances with respect to total working fund in comparing to SCBNL and HBL banks.

IV. Investment in Government Securities to Total Working Fund Ratio

Government securities are a safe medium of investment though it is not liquid as cash and bank balance. Therefore, a bank never used as its resources as loan and advances. It utilizes its funds by purchasing government securities, this ratio is very helpful to measure the extent on which the banks are successful in mobilizing their total working fund on different types of government securities to maximize the income. High ratio shows better mobilization of fund as investment on government securities and vice versa. This ratio is calculated by dividing investment in government securities to total working fund. The following table shows that ratios of concerned banks.

Table No. 4.9

Investment in Government Securities to Total Working Fund Ratio

F/Y	NABIL	SCBNL	HBL
2003/04	21.93	33.62	13.86
2004/05	14.05	32.90	19.95
2005/06	10.31	33.51	17.46
2006/07	17.64	24.86	19.26
2007/08	12.51	24.41	20.65
Mean	15.288	29.86	18.236
S. D.	4.0909	4.2756	2.4317
C.V.	26.76	14.32	13.33

Source: Appendix B - 4

The above table reveals that all three banks are in fluctuating trend. NABIL had the highest ratio 21.93% in F/Y 2003/04 and the lowest ratio of 10.31% in F/Y 2005/06. Similarly, SCBNL has the highest ratio of 33.62% in F/Y 2003/04 and the lowest ratio of 24.41% in 2007/08. Similarly, HBL has high ratio of 20.65% and low ratio of 13.86% in the year 2007/08 and 2003/04 respectively. If mean ratio is considered, SCBNL seems to be stronger than NABIL and HBL in mobilizing of total assets as investment in Government securities. According to the view point of C.V, HBL seems to be more consistency and NABIL seems to be less consistency because HBL has the lowest C.V. and NABIL has the highest C.V.

From the above analysis, we can conclude that HBL has invested large portion of working fund in government securities than NABIL and SCBNL. The ratios also indicate that the banks have no certain investment policy with regards to what percentage of working fund to be invested in purchasing government securities. In this case SCBNL is in moderate position.

V. Investment in Share and Debentures to Total Working Fund Ratio

Commercial banks are now interested to invest its funds not only government securities but also shares and debentures of other different types of companies. The investments in government securities are safer than the investment in debenture and share of other companies. These banks are showing response on investment, the main purpose of the ratio is to measure to which extent the banks are successful to mobilize their assets on purchase of shares and debentures of other companies to generate and utilize their excess funds, a high ratio indicates greater portion of investment on shares and debentures out to total working funds and vice versa. This ratio is calculated by dividing investment in share and debentures by total working fund. It is presented in below table no 4.10.

Table No. 4.10

Investment in Shares and Debentures to Total Working Fund Ratio

F/Y	NABIL	SCBNL	HBL
2003/04	0.0013	0.0005	0.0004
2004/05	0.0016	0.0006	0.0012
2005/06	0.0012	0.0001	0.0013
2006/07	0.0021	0.0015	0.0022
2007/08	0.0022	0.0032	0.0025
Mean	0.168	0.13	0.152
S. D.	0.0407	0.1032	0.0752
C.V.	24.22	79.35	49.48

Source: Appendix B - 5

The above table clearly reveals that all three 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 0.01%. In average, NABIL has invested slightly higher amount of total working fund on shares and debenture than other banks. The mean ratio is also higher. It indicates that NABIL has been more successful in mobilizing its fund as investment in shares

and debenture. The above table shows NABIL has an increasing trend in investment on shares and debentures; where as SCBNL and HBL has a fluctuating trend through out the period of study.

From the above analysis, it can be concluded that the ratios of NABIL with other two banks as shown in the table, it has maintained the highest ratio. It means it has comparatively higher percentage of its total asset into other company's shares and debentures

VI. Total OBS Operation to Loan and Advances Ratio

This ratio shows the proportion of fee based off balance sheet activities to fund based loan and advances of the bank. These fee based activities are very much dependent on mode of operation, management strategy, banking network with foreign banks etc. a commercial banks should not concentrate only on fund based activities such as loan and advances, investment on different sectors but it should pay its attention to increase fee based off balance activities. Income generated through the fee based off balance sheet activities constitutes a significant proportion in the total income of commercial banks income statement. A high ratio indicates the higher OBS transaction and vice versa. The ratio can be calculated by dividing total OBS operation by loan and advances. Which ratios are presented form in table no 4.11

Table No. 4.11

Total OBS Operation to Loan and Advances Ratio

F/Y	NABIL	SCBNL	HBL
2003/04	64.69	67.57	52.12
2004/05	44.32	50.07	62.13
2005/06	42.55	57.69	44.93
2006/07	36.64	65.26	40.32
2007/08	36.47	44.76	55.76
Mean	44.934	57.07	51.052
S. D.	10.3614	8.6977	7.7289
C.V.	23.06	15.24	15.14

Source: Appendix B - 6

The above table shows that the ratio of NABIL is in decreasing SCBNL and HBL are in fluctuating trend. The highest ratio of NABIL is 64.69% in the F/Y 2003/04 and the lowest ratio of 36.47% in the F/Y 2007/08. SCBNL has the

highest ratio of 67.57% and the lowest ratio of 44.76% in the F/Y 2003/04 and 2007/08 respectively. Similarly, the highest ratio of HBL is 62.13% in the F/Y 2004/05 and the lowest ratio of 40.93% in the F/Y 2006/07. If the mean ratio is considered, SCBNL has the highest ratio of 57.07% and NABIL has the lowest ratio of 44.93%. HBL seems to be more consistency and NABIL seems to be less consistency.

Thus, we can say that NABIL is in moderate position, which is better than HBL and poorer than SCBNL.

VII. Loan Loss Ratio

Loss of loan is occurred when the debtors fail to pay their. Loss o f loan is not only the default of debtors but it is because of the failure of recovery of loan by the bank**.** Negligence in its part makes a negative impact on the earning and capital of a bank very badly. Greater loan loss provision is made in income statement if high loss is expected. But this will lead to low profit and possible losses and produces low increase or decrease in capital. The loan loss ratio shows how efficiently the bank manages its loan and advance and makes effort for timely recovery of loan. The negative sign indicates that an increase in the value of the variables is indicative of weakness of the bank. This ratio is calculated by dividing loan loss provision by loan and advances. This ratio is presented at below table no 4.12

Table No. 4.12

Loan Loss Provision Ratio

F/Y	NABIL	SCBNL	HBL
2003/04	4.38	4.42	8.10
2004/05	3.41	3.41	8.26
2005/06	2.76	3.03	7.64
2006/07	2.30	2.74	4.68
2007/08	1.85	1.79	3.50
Mean	2.84	3.96	6.44
S. D.	0.98	1.25	1.96
C.V.	1.13	0.75	2.4

Source: Appendix B - 7

From the above table, it is clearly seen that, three banks have decreasing trends. NABIL has the maximum ratio of 7.65% in the fiscal year 2000/01 and the minimum ratio of 4.38% in the fiscal year 2003/04. In case of SCBNL, it

has the maximum ratio of 4.42% in the fiscal year 2003/04 and the minimum ratio of 1.79% in the F/Y 2007/08. Similarly, HBL has the maximum ratio of 8.26% in the F/Y 2004/05 and the minimum ratio of 3.50% in the F/Y 2007/08.

In average, NABIL has lowest loan loss provision ratio comparing with other two banks. So, it shows that the position is better in this regard. It concludes that the performance of NABIL in terms of recovery of loan is satisfactory in comparison to HBL and SCBNL.

4.1.3. Analysis of Profitability Ratios

Profitability ratios are very much helpful to measure the overall efficiency of operation of financial institutions. In the context of bank, strictly speaking no bank can survive without profit. Profit is the important indicator of efficiency in the operation of a bank. The banks acquire profit by providing different services to its customers by making investment in different sectors. Sufficient profit is a must to have good liquidity, grab investment opportunities, expand banking transaction, finance government in need of development fund, overcome the future contingencies and need fixed internal obligation of a bank. Higher the profit ratio shows that higher the efficiency of a bank. Following profitability ratios, which are related with profit and fund mobilization are studied under this heading.

I. Returns on Loan and Advances Ratio

Return on loan and advances ratio measures the earning capacity of commercial banks its mobilized fund - based loan and advances. The high ratio indicates the high return and vice versa. This ratio is calculated by dividing net profit by loan and advances. The following table no 4.13 shows the return on loan and advances ratio of NABIL, SCBNL and HBL during the study period.

Table No. 4.13

Return on Loan and Advances Ratio

F/Y	NABIL	SCBNL	HBL
2003/04	5.56	8.39	2.20
2004/05	4.90	6.62	2.48
2005/06	4.92	7.37	3.12
2006/07	4.34	6.59	2.89
2007/08	3.49	5.97	1.58
Mean	4.64	6.99	2.45
S. D.	0.69	0.83	0.54
C.V.	14.94	11.87	22.04

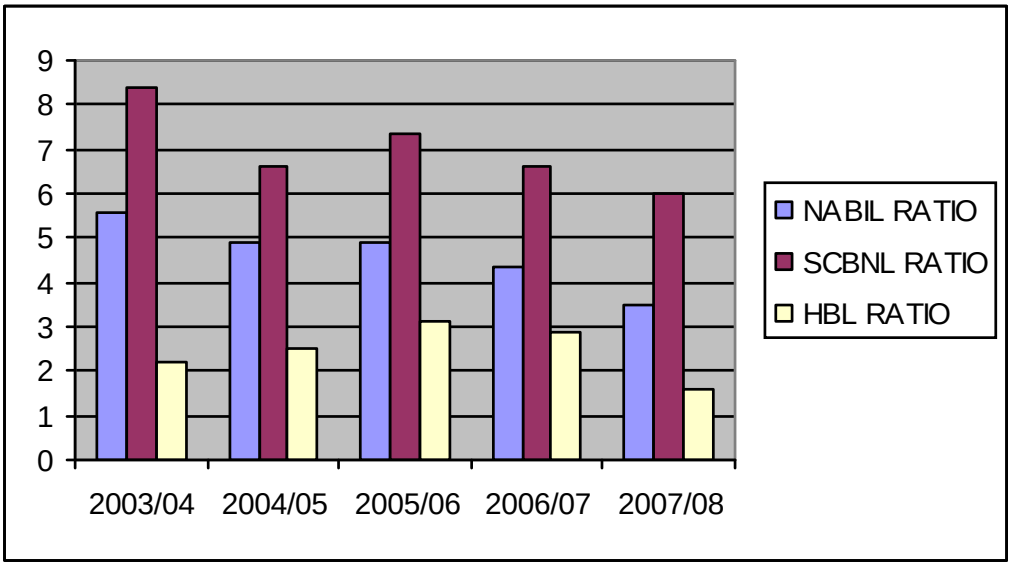
Source: Appendix C - 1

The above table shows that the ratio of return on loan and advances of SCBNL is better than NABIL and HBL in the all fiscal years, through they have a fluctuating trend. NABIL's ratios have witnessed a decreasing trend up to F/Y 2001/02; there after it has an increasing trend. NABIL has recorded the highest ratio of 5.56% in F/Y 2003/04, and the lowest ratio of 3.49% in F/Y 2007/08. SCBNL has recorded the highest of 8.39% in F/Y 2003/04 and the lowest of 5.97% in F/Y 2007/08. Similarly, HBL has the highest ratio of 3.12% and the lowest ratio of 1.58% in the F/Y 2005/06 and 2007/08 respectively.

The comparison of mean ratio reveals that SCBNL has higher ratio than other banks. This shows that SCBNL has been more successful in maintaining its higher return on loan and advances. If C.V. is considered, HBL is significantly higher than other two sample banks. It proves that HBL is less consistency and uniformity than SCBNL and NABIL. NABIL's ratio on return on loan and advances is in moderate position among three banks. Returns on loan and advances ratio of NABIL, SCBNL and HBL is graphically shown as follows:

Figure No. 4.3

Returns on Loan and Advances Ratio



II. Return on Total Working Fund Ratio

Return on total working fund ratio measures the profit earning capacity by investing financial resources of the bank assets. Return will be higher if the banks working fund is well managed and efficiently utilized and vice versa. 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, SCBNL and HBL.

Table No. 4.14

Return on Total Working Fund Ratio

F/Y	NABIL	SCBNL	HBL
2003/04	2.72	2.27	1.06
2004/05	3.02	2.46	1.12
2005/06	2.84	2.56	1.55
2006/07	2.47	2.42	1.47
2007/08	2.01	2.46	0.85
Mean	2.61	2.43	1.21
S. D.	0.35	0.09	0.26
C.V.	13.4	3.87	21.66

Source: Appendix C - 2

Form the above listed comparative table, it is found that the return on total working fund is in fluctuating trend in case of all three banks. NABIL has the highest ratio of 3.02% in the F/Y 2004/05 and the lowest ratio of 2.01% in the F/Y 2007/08. SCBNL has the highest ratio of 2.56% and the lowest ratio of 2.27% in the F/Y 2005/06 and 2003/04 respectively. Similarly, HBL has recorded the highest ratio of 1.55% and the lowest ratio of 0.85% in the F/Y 2005/06 and 2007/08 respectively.

Among three banks, NABIL has slightly higher mean ratio than SCBNL and HBL. It reveals that NABIL has been able to earn high profit on total working fund in comparison with other two banks. One point worth making here is that NABIL has managed and utilized its assets more efficiently than SCBNL and HBL from F/Y 2002/03 onwards and its return on assets have also been higher. HBL has not managed its assets well because the return on total working fund is lower than other banks. From the viewpoint of C.V., SCBNL are more consistency than NABIL and HBL. NABIL is less consistency than others.

From the above analysis, it can be concluded that SCBNL is little bit poorer in return on total working fund than NABIL and better than HBL.

III. Return on Equity Ratio

The objective of every bank is to earn high profit. If the banks utilize its equity capital properly then only bank can earn maximum profit. The return on equity capital shows the extent to which a bank is successful to mobilize its equity. It is measuring rod of the profitability of a bank. A high ratio indicates the success of bank in mobilizing its equity capital and vice versa. The ratio can be calculated by dividing net profit by equity capital. The return on equity ratio of three banks are presented in below table no. 4.15

Table No. 4.15

Return on Equity Ratio

F/Y	NABIL	SCBNL	HBL
2003/04	92.61	158.39	87.68
2004/05	105.49	158.79	79.05
2005/06	129.21	194.01	59.24
2006/07	137.09	167.37	60.66
2007/08	108.31	131.92	30.42
Mean	114.54	162.10	63.41
S. D.	16.28	19.91	19.73
C.V.	14.21	12.28	31.12

Source: Appendix C - 3

The above table shows that the ratio of NABIL has increasing trend up 2003/04 to 2006/07 and then decreased trend. It has the highest ratio of 137.50% in the F/Y 2004/05 and the lowest ratio of 92.61% in the F/Y 2003/04. The ratio of SCBNL has followed increasing trend from 2003/04 to 2005/06 and then decreases. It has the highest ratio of 149.30% and the lowest ratio of 131.92% in the F/Y 2005/06 and 2007/08 respectively. Similarly, the ratio of HBL has followed decreasing trend. It has the highest ratio of 87.68% and the lowest ratio of 30.42% in the F/Y 2003/04 and 2007/08 respectively. When mean ratios are observed, it is found that SCBNL has the highest ratio comparing with NABIL and HBL. HBL has the lowest ratio. The C.V. of SCBNL is low so that it seems to be more consistency and HBL seems to be less consistency. Thus, it can conclude that HBL's return on equity is better than NABIL and poorer than SCBNL.

IV. Total Interest Earned to Total Working Fund Ratio

This ratio is very helpful to reveals the earning capacity of commercial banks by mobilizing its working fund. This ratio is important to know the extent on which the banks are successful in mobilizing their total assets to generate high income as interest. Higher the ratio, higher will be the earning power of the bank on its total working fund and vice versa. This ratio is calculated by

dividing total interest earned by total assets. The following table no 4.16 shows interest earned to total working fund ratio of NABIL, SCBNL and HBL.

Table No. 4.16

Total Interest Earned to Total Working Fund Ratio

F/Y	NABIL	SCBNL	HBL
2003/04	5.98	4.41	5.03
2004/05	6.22	4.84	5.28
2005/06	5.87	4.62	5.52
2006/07	5.83	4.94	5.28
2007/08	5.33	4.77	5.43
Mean	5.85	4.72	5.31
S. D.	0.29	0.19	0.17
C.V.	4.99	3.93	3.13

Source: Appendix C - 4

The above table reflects that NABIL have increasing trend up to 2004/05 and decreasing respectively and other two banks had fluctuating trend. NABIL has the highest ratio of 6.22% in F/Y 2004/2005 and the lowest ratio of 5.33% in the F/Y 2007/08. SCBNL has experienced the highest ratio of 4.84% in the F/Y 2004/05 and the lowest ratio of 4.41% in F/Y 2003/2004. Similarly, HBL has the highest ratio of 5.52% and the lowest ratio of 5.03% in the F/Y 2003/04 respectively.

The average interest earned ratio of NABIL is 5.85% where as the same for SCBNL and HBL are 4.72% and 5.31% respectively. This reflects that NABIL has been stronger in terms of interest earning power on total working fund. According to view point of C.V, the ratio of HBL is slightly lower than HBL and SCBNL. It can be concluded that HBL is more consistency than other two banks.

From the above analysis, we can conclude that HBL is in better position and 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.

V. Total Interest Earned to Total Operating Income Ratio

Total interest earned to total operating income ratio helps to depict the earning capacity of a commercial bank on its total operating income, this ratio indicated the extent to which the bank has successfully mobilized its fund in interest bearing asset. This ratio is calculated by dividing total interest earned to total operating income. The following table no: 4.17 shows interest earned to total operating income ratios of NABIL, SCBNL and HBL.

Table No. 4.17

Total Interest Earned to Total Operating Income Ratio

F/Y	NABIL	SCBNL	HBL
2003/04	75.10	66.03	82.17
2004/05	74.30	67.30	82.28
2005/06	96.36	83.88	116.72
2006/07	107.27	90.63	127.43
2007/08	118.45	89.69	122.92
Mean	94.30	79.40	106.30
S. D.	17.46	10.70	19.95
C.V.	18.52	13.48	18.77

Source: Appendix C - 5

The above table exhibits that the ratio of NABIL bank is decreasing in F/Y 2004/05 and then increasing trend. SCBNL has decreasing trend and HBL have increasing trend in the study period. NABIL has the highest ratio of 118.45% in the F/Y 2007/2005 and the lowest ratio of 75.10% in the F/Y 2003/04. SCBNL is going to increasing in year from 2003/04 to 2006/07. SCBNL has the highest ratio of 90.63% in the F/Y 20006/07 and the lowest ratio of 66.03% in the F/Y 2003/04. Similarly, HBL has recorded the highest ratio of 127.43% and lowest ratio of 82.17% in the F/Y 2006/07 and 2003/04 respectively.

If the mean ratios are observed, it is found that the HBL has the highest ratio than NABIL and SCBNL. Mean ratio of HBL is 106.30%, whereas the NABIL and SCBNL mean ratios are 94.30% and 79.40% respectively. The C.V. of NABIL is 18.52% that are comparatively higher than SCBNL and lower than

HBL. It indicates that the total interest earned to total operating income ratio of the HBL is less consistency than other banks. The C.V. of SCBNL is lower than other two banks. It means more consistency and uniformity than other banks.

From the above analysis, it can be concluded that NABIL is in moderate position among three banks. HBL has mobilized more of its funds in interest bearing assets.

VI. Total Interest Earned to Total Outside Assets Ratio

The main assets of a commercial bank are its outside assets, which includes loan and advances, investment on government securities, investment on shares and debentures and other all types of investments. This ratio reflects the extent on which the banks are successful to earn interest as major income on al the outside assets. A high ratio shows high earning power of total outside assets and vice versa. This ratio is calculated by dividing total interest earned by total outside asset. The following table no: 4.18 shows interest earned to total outside assets.

Table No. 4.18

Total Interest Earned to Total Outside Assets Ratio

F/Y	NABIL	SCBNL	HBL
2003/04	7.14	5.86	5.86
2004/05	7.20	5.93	5.10
2005/06	8.81	5.46	6.37
2006/07	8.31	5.87	6.16
2007/08	8.08	5.76	5.98
Mean	7.91	5.78	6.07
S. D.	0.65	0.17	0.18
C.V.	8.19	2.89	2.9

Source: Appendix C - 6

The above comparative table proves that the ratio of NABIL exhibits fluctuating trend and SCBNL & HBL has decreased up to 2003/04 and then increased during the study period. NABIL has the highest ratio of 8.21% in the

F/Y 2000/01 and the lowest ratio of 7.14% in the F/Y 2003/04. In case of SCBNL, it has followed almost decreasing trend, though it has increased for the year 2003/04 to 2004/05 from 5.86% to 5.93%. Similarly, HBL has recorded highest ratio of 10.51% and lowest ratio of 5.86% in the F/Y 2000/01 and 2003/04 respectively.

If the mean ratios are observed it is found that the NABIL has the highest ratio of all. It has the mean ratio of 7.91%. The mean ratios of SCBNL and HBL are 5.78% and 6.07% respectively. The C.V. of ratios of SCBNL is 2.89% that is comparatively lower than NABIL and HBL. NABIL seems to be less consistency and SCBNL seems to be more consistency.

From the above table, it can be concluded that the ratio of total interest earned to total outside assets of NABIL is satisfactory in comparing to other two banks because high ratio is an indicator of high earning power of the banks.

VII. Total Interest Paid to Total Working Fund Ratio

This ratio measures the percentage of total interest expenses against total working fund. The higher ratio is the indicator of higher interest expenses on total working fund and vice versa. This ratio is calculated by dividing total interest paid by total working fund. The following table no: 4.19 shows the total interest paid to total working fund ratio.

Table No. 4.19

Total Interest Paid to Total Working Fund Ratio

F/Y	NABIL	SCBNL	HBL
2003/04	1.69	1.15	1.99
2004/05	1.42	1.16	2.05
2005/06	1.60	1.18	2.20
2006/07	2.04	1.44	2.29
2007/08	2.04	1.41	2.28
Mean	1.76	1.27	2.16
S. D.	0.25	0.13	0.12
C.V.	14	10.33	5.62

Source: Appendix C - 7

The above table shows that the interest paid by HBL is in increasing trend up to 2006/07 then decreasing trend. NABIL shows decreasing up to 2005/06 than increasing trend remaining same ratio for 2006/07 to 2007/08 respectively and SCBNL is in increasing to 2005/06 than fluctuating trend. The ratio of NABIL has highest ratio of 2.04% in 2006/07 and 2007/08 and minimum ratio of 1.42% in the F/Y 2004/05 respectively. Similarly, the ratio of SCBNL has highest in 1.18% in the F/Y 2005/06 and minimum in 1.15% in 2003/04. HBL has maximum ratio of 2.29% in the F/Y 2006/07 and minimum ratio of 1.99% in the F/C 2003/04. When mean ratios are observed, it is found that HBL has the highest of all. It has the mean ratio of 2.162% against the 1.76% and 1.27% of NABIL and SCBNL. Thus, it means HBL has paid higher interest in comparison to other two banks. The C.V. of HBL is lower than other banks. It shows the total interest paid to total working fund ratio is more consistency than that of NABIL and SCBNL.

Thus, it can conclude that the position of HBL is not better than other banks as its ratio is paying more interest against working fund. It has collected the funds from expensive sources, which may be the higher portion of fixed deposit in its total deposit. NABIL is in better position from interest payment point of view than other banks. NABIL seems to have collected its funds from cheaper sources than other banks.

4.1.4. Analysis of Risk Ratios

The possibilities of risk make banks investment a challenging task. Bank has to take risk to get return on its investment. The risk taken is compensated by the increase in profit. So that the banks opting for high profit have to accept the risk and manage of the level of risk that one has to bear while investing its funds. The following ratios are calculated to measure the risk.

I. Liquidity Risk Ratio

The ratio of cash and bank balance are the most liquid assets and they are considered as banks liquidity sources and deposits as the liquidity needs. A higher liquidity indicates less risk and less profitable banks and vice versa.

Liquidity risk is calculated by dividing cash and bank balance by total deposit. The following table no 4.20 shows the liquidity risk ratio of concerned banks.

Table No. 4.20

Liquidity Risk Ratio

F/Y	NABIL	SCBNL	HBL
2003/04	6.87	9.56	9.09
2004/05	3.83	5.75	8.12
2005/06	3.26	5.53	6.48
2006/07	6.00	8.20	5.85
2007/08	8.37	6.89	4.55
Mean	5.67	7.19	6.80
S. D.	1.90	1.52	1.60
C.V.	33.52	21.16	23.46

Source: Appendix D - 1

The above table shows that the liquidity risk ratios of NABIL and SCBNL banks have fluctuating trend. HBL banks have decreasing trend. NABIL has recorded the highest ratio of 8.37% in the fiscal year 2007/08 and the lowest ratio of 3.26% in the fiscal year 2005/06. SCBNL has recorded the highest ratio of 9.56% and the lowest ratio of 5.53% in the F/Y 2003/04 and 2005/06 respectively. Similarly, HBL has recorded the highest ratio of 9.09% in the fiscal year 2003/04 and the lowest ratio of 4.55% in the fiscal year 2007/08.

When mean ratios are taken it is found that NABIL'S liquidity risk is lower than that of SCBNL and HBL. SCBNL has more cash & bank balance to meet its current obligations. On the other hand, too much idle cash might have an adverse impact on profitability. A trade off between liquidity and profitability must be maintained at all times. In comparison of C.V.'s of the SCBNL banks seems to be more stable and consistent. NABIL seems to be less consistency. Thus, it can be concluded that HBL is in moderate position among three banks. Its mean liquidity risk ratio is higher than SCBNL and lower than NABIL.

II. Credit Risk Ratio

Bank utilizes its collected funds in providing credit to different sectors. There is risk of default or non-repayment of loan while making investment; bank examines the credit risk involved in the project. Generally credit risk ratio shows the proportion of non-performing assets in the total loan and advances of a bank. But, here, we presented the credit risk as the ratio of total loan and advances to total assets due to lack of relevant data. The credit risk ratio is presented in below table no 4.21

Table No. 4.21

Credit Risk Ratio (%)

F/Y	NABIL	SCBNL	HBL
2003/04	48.91	27.11	48.27
2004/05	61.60	37.19	45.31
2005/06	57.87	34.68	49.70
2006/07	57.04	36.73	50.71
2007/08	57.54	41.15	53.90
Mean	56.59	35.37	49.58
S. D.	4.17	4.63	2.83
C.V.	7.36	13.09	5.7

Source: Appendix D - 2

The above table shows that all three banks are in fluctuating trend. NABIL has witnessed the highest ratio of 61.60% in the F/Y 2004/05 and the lowest ratio of 48.91% in the F/Y 2003/04.

Similarly, SCBNL has the highest ratio of 41.15% in F/Y 2007/08 and the lowest ratio of 27.11% in F/Y 2003/04. HBL has had a high ratio of 53.90% in the F/Y 2007/08 and low ratio of 45.31% in the F/Y 2004/05. The mean ratio of NABIL is higher than that of SCBNL and HBL. This indicates that NABIL has more exposure to credit risk than its counterpart.

From the point of view of C.V., HBL seems to be more consistency and uniformity because it has low C.V. SCBNL seems to be less consistency because it has high C.V.

III. Capital Risk Ratio

The capital risk of a bank indicates how much assets value may decline before the position of deposit and other creditors is jeopardized. Therefore, a bank must maintain adequate capital in relation to the nature and condition of its assets, its deposits liabilities and other corporate responsibility. Capital risk ratio measures banks ability to attract deposits and inter bank funds.

It also determines the level of profit. A bank can earn if a bank chooses to take high capital risk and its ROE will be higher and vice versa. This ratio is calculated by dividing capital (paid up + reserve) by total risk weighted assets. This can be expressed as follows. The following table no: 4.22 shows the capital risk ratio of three banks.

Table No. 4.22

Capital Risk Ratio

F/Y	NABIL	SCBNL	HBL
2003/04	12.48	14.92	7.85
2004/05	11.68	15.07	8.41
2005/06	6.65	14.18	8.87
2006/07	0.62	6.72	9.81
2007/08	5.37	6.92	9.81
Mean	7.35	11.56	8.95
S. D.	4.36	3.88	0.77
C.V.	59.26	33.59	8.64

Source: Appendix D - 3

Above table shows that the capital risk ratio of NABIL has in decreasing trend up to 12.48% to 0.62% in F/Y 2003/04 to 2006/07 respectively. SCBNL is in fluctuating trend. HBL ratio is increasing trend. NABIL has the highest ratio of 12.48% in the F/Y 2003/04 and the lowest ratio of 0.62% in the F/Y 2006/07.

SCBNL has maintained the highest ratio of 15.07% and the lowest ratio 6.72% in the F/Y 2004/05 and 2006/07 respectively. Similarly, HBL has recorded the highest ratio of 9.81% in the F/Y 2006/07 and 2007/08 the lowest ratio of 7.85% in the F/Y 2003/04. In average, SCBNL has the highest capital risk ratio i.e. 11.56% and NABIL has the lowest ratio of 7.35%. In the point view of C.V. NABIL seems to be less consistency and HBL seems to be more consistency.

Thus, it can be concluded that, HBL can earn high profit because it has high mean capital risk ratio

4.1.5. Analysis of Growth Ratios:

Those growth ratios are analyzed and interpreted which are directly related to the fund mobilization and investment of a commercial bank. Growth ratio represents how well the commercial banks are maintaining their economic and financial position. Under this topic the following ratios directly related to fund mobilization and investment of the banks are calculated.

I. Growth ratio of total deposits.
II. Growth ratio of total loan and advances.
III. Growth ratio of total investment.
IV. Growth ratio of net profit.

The ratio can be calculated by dividing the last period figure by the first period figure there by referring to the compound interest tables. The high ratio generally indicates better performance of a bank and vice versa.

Table No. 4.23

Growth Ratio of Total Deposit (%)

(Rs. in million)

F/Y	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	G. R (%)
NABIL	14115.03	14586.61	19347.4	23342.29	31915.05	22.62%
SCBNL	21161.46	19335.1	23061.03	24647.02	29744	8.88%
HBL	22010.34	24814.01	26490.85	30048.42	31842.79	9.67%

Source: Appendix E - 1

The above comparative table no: 4.23 shows that the deposit trend of NABIL and HBL are in increasing trend and the deposit trend of SCBNL is in decreasing in 2004/05 than increasing up to the F/Y 2007/08.

The growth ratio of total loan and advances of NABIL is better than other two banks i.e. 22.62%. Among the three banks the growth ratio of SCNBL has the lowest i.e. 8.88% where as HBL has ratio of 9.67%. Thus, it indicates that the performance of NABIL is better in compare to other banks year by year. The performance on loan and advances of SCBNL is poorer than other banks because it has lowest growth ratio.

Table No. 4.24

Growth Ratio of Total Loan and Advances (%)

(Rs. in million)

F/Y	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	G. R (%)
NABIL	8189.99	10586.17	12922.54	15545.78	21365.05	27.09
SCBNL	6410.24	8143.21	8935.42	10502.64	13718.6	20.93
HBL	11951.87	12424.52	14642.56	16998	19497.52	13.01

Source: Appendix E - 2

The above table no: 4.24 shows that the loan and advances pattern of NABIL, SCBNL and HBL are in increasing from the all F/Y. The growth ratio of total loan and advances of NABIL is better than other two banks i.e. 27.09%. Among the three banks the growth ratio of HBL has the lowest i.e. 13.01% where as SCBNL has ratio of 20.93%. Thus, it indicates that the performance of NABIL is better in compare to other banks year by year. The performance on loan and advances of HBL is poorer than other banks because it has lowest growth ratio.

Table No. 4.25

Growth Ratio of Total Investment (%)

(Rs. in million)

F/Y	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	G. R (%)
NABIL	5835.95	4267.23	6178.53	8945.31	9939.77	14.24
SCBNL	11360.33	9702.55	12838.56	13553.23	13902.32	5.18
HBL	9292.1	11692.34	10889.03	11822.98	13340.18	43.56

Source: Appendix E - 3

From the above table no: 4.25 the investment pattern of all the banks is in fluctuating trend and positive growth rate ratio. HBL has the highest growth ratio of 43.56% and SCBNL has recorded the growth ratio of 5.18%.

Thus, we can conclude that the HBL is better in investment pattern than other banks. The performance of SCBNL is poorer than other banks because it has lowest growth ratio. It has to invest in various sectors is worst in compared to other banks year by year.

Table No. 4.26

Growth Ratio of Net Profit (%)

(Rs. in million)

F/Y	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	G. R (%)
NABIL	455.32	518.64	635.26	674	746.47	13.53
SCBNL	537.8	539.2	658.76	691.67	818.92	11.08
HBL	263.05	308.28	457.46	491.82	635.87	78.21

Source: Appendix E - 4

The above comparative table no: 4.26 shows that the trends of net profit of all three banks are in increasing from the F/Y 2002/03 year by year. HBL has recorded the highest growth ratio of 78.21%. The growth ratio of NABIL is 5.77%. Similarly, the SCBNL has lowest growth ratio of 11.08% among three banks.

Thus, it can conclude that HBL is very successful to maintain growth ratio of net profit and SCBNL seems to be failure to maintain growth ratios.

4.2 Statistical Tools

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 which are used to analysis are as follows.

4.2.1. 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.

The following formulae is used to calculate,

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

Where, x = $\int X$ Z $\bar{X}$ and y = $\int Y$ Z $\bar{Y}$

Where,

r= coefficient of correlation

N= No. of observations of X and Y

∑X=sum of the observations in series X

∑Y= sum of the observations in series Y

∑XY= sum of the product of the observations in series X and Y

The result of coefficient of correlation is always between -1 to +1,

i.e. when,

r = +1, it means there is a significant relationship between the two variables

r = - 1, it means there is a no significant relationship between the two variables.

I. Coefficient of Correlation between Deposits and Loan & 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 advances 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 no: 4.27 shows the value of 'r', r^2, P.Er and 6.P.Er. between total deposits and loan & advances of NABIL, SCBNL and HBL during the study period.

Table No. 4.27

Correlation between Deposit and Loan and Advances

Banks	Evaluation Criteria			
	R	r^2	P.Er.	6P.Er.
NABIL	0.9894	0.9789	0.0064	0.6365
SCBNL	0.9241	0.8540	0.0440	0.2642
HBL	0.9734	0.9476	0.0158	0.0949

Source: Appendix F - 1, 2 & 3

The coefficient of correlation 'r' between deposits and loan and advances in case of NABIL is 0.9894, which indicates a positive correlation between deposits and loan and advances. Coefficient of determination (r^2) is 0.9789. This means 97.89% of variation of the dependent variable has been explained by independent variable. The value of 'r' is greater than 6P.Er. This states that there exists a significant relationship between deposits and loan and advances.

The coefficient of correlation 'r' between deposits and loan and advances in case of SCBNL is 0.9241, which indicates a positive relationship between the two variables. The coefficient of determination (r^2) is 0.8540. This indicates that 85.40% of the variation of the dependent variable has been explained by independent variable. Moreover, 'r' is greater than 6P.Er, which further states that there is a significant relationship between deposits and loan and advances.

The coefficient of correlation 'r' incase of HBL is 0.9734, which indicates positive relation between two variables. The coefficient of determination (r^2) is 0.9476. This indicates that 94.76% of the variation of the dependent variable has been explained by independent variable. Here, coefficient of correlation 'r' is greater than 6P.Er. It means there is a significant relationship between two variables.

II. Coefficient of Correlation between Deposit and Investment

Coefficient of correlation between deposit and investment measures the degree of relationship between these two variables. Here deposit is taken as independent variable (x) and the variable dependent on deposit 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 no: 4.28 shows the value r, r^2, P.Er and 6P.Er of NABIL, SCBNL and HBL during the study period.

Table No. 4.28

Correlation between Deposit and Investment

Bank	Evaluation Criteria			
	R	r^2	P.Er.	6P.Er.
NABIL	0.0315	0.0010	0.3013	1.8081
SCBNL	0.8775	0.7701	0.0694	0.4163
HBL	0.8901	0.7922	0.0627	0.3760

Source: Appendix F - 4, 5 & 6

The coefficient of correlation 'r' between deposits and total investment in case of NABIL is 0.0315, which indicates a positive correlation between deposits and total investment. Coefficient of determination (r^2) is 0.0010. This means 0.10% of variation of the dependent variable has been explained by independent variable. The value of 'r' is lower than 6P.Er. This states that there exists an insignificant relationship between deposits and total investment.

The coefficient of correlation 'r' between deposits and total investment in case of SCBNL is 0.8775, which indicates a positive relationship between the two variables. The coefficient of determination (r^2) is 0.7701. This indicates that 77.01% of the variation of the dependent variable has been explained by independent variable. Moreover, 'r' is greater than 6P.Er, which further states that there is a significant relationship between deposits and total investment.

The coefficient of correlation 'r' incase of HBL is 0.8901, which indicates positive relation between two variables. The coefficient of determination (r^2) is

0.7922. This indicates that 79.22% of the variation of the dependent variable has been explained by independent variable. Here, coefficient of correlation 'r' is greater than 6P.Er. It means there is significant relationship between two variables.

In conclusion, it can be said that in case of NABIL the relationship is less significant and SCBNL and HBL shows significant relationship between total deposit and total investment.

III. 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 no: 4.29 shows table shows the value of r, r^2, P.Er and 6P.Er of NABIL, SCBNL and HBL during the study period.

Table No. 4.29

Correlation between Deposit and Net Profit

Bank	Evaluation Criteria			
	R	r^2	P.Er.	6P.Er.
NABIL	0.9373	0.8785	0.0366	0.2198
SCBNL	0.9753	0.9512	0.0147	0.0882
HBL	0.4326	0.1872	0.2452	1.4771

Source: Appendix F - 7, 8 & 9

The coefficient of correlation between deposits and net profit in case of NABIL is 0.9373, which indicates a positive relationship between deposits and net profit. The coefficient of determination (r^2) is 0.8785, which indicates 87.85% of the variation of the dependent variable (net profit) has been explained by the independent variable (deposits). The value of 6P.Er is lower than r i.e. 0.2198<0.9373. This states that there exists a significant relationship between deposits and net profit.

The coefficient of correlation between deposits and net profit in case of SCBNL is 0.9753, which indicates a positive relationship between these variables. The value of (r^2) is 0.9512 indicates that 95.12% of the variation of the dependent variable has been explained by the independent variable. The value of (r) is lower than 6PEr i.e. 0.0882<9753, which further states that these exists a significant relationship between deposits and net profit.

In the case of HBL, the value of 'r' is 0.4326. It means there is positive relationship between two variables. The value of 'r2' i.e. 18.72% indicates that the variation of the dependent variables has been explained by the independent variables. The value of 'r' is lower than 6P.Er. It indicates that there is insignificant relationship between these two variables.

From above analysis, we can conclude that NABIL and SCBNL have positive relationship and significant relationship between deposits and net profit. But HBL shows positive relationship and insignificant between deposits and net profit. The value of (r^2) in case of HBL 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 profit. SCBNL has been more successful in mobilization of its deposit to yield higher profits year after year.

IV. Coefficient 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 between these two variables is to justify whether deposit is significantly used to earn interest or not. The following table no: 4.30 shows the values of r, r^2, P.Er and 6P.Er of concerned banks.

Table No. 30

Correlation between Deposits and Interest Earned

Bank	Evaluation Criteria			
	R	r^2	P.Er.	6P.Er.
NABIL	0.9966	0.9931	0.0021	0.0125
SCBNL	0.9584	0.9184	0.0246	0.1476
HBL	0.9911	0.9823	0.0054	0.0321

Source: Appendix F - 10, 11 & 12

The coefficient of correlation (r) between deposit and interest earned in case of NABIL is 0.9966, which indicates a positive relationship between these variables, when deposits increased; the interest income subsequently increased but when it fall the interest income also fall. The coefficient of determination (r^2) is 0.9931, which shows that 99.31% of the variation of dependent variable has been explained by independent variable. The value of 6P.Er is less than (r). This states that there is a significant relationship between deposits and interest earned.

The coefficient of correlation (r) between deposits and interest earned incase of SCBNL is 0.9584, which projects a positive relationship between these variables. The coefficient of determination (r^2) is 0.9184, which shows that 91.84% of the variation of dependent variable has been explained by the independent variable. The value of 6P.Er is less than (r). This states that there is a significant relationship between deposits and interest earned.

In case of HBL, the coefficient of correlation 'r' is 0.9911, which shows positive relationship between these two variables. The coefficient of determination 'r2' is 0.9823; it means 98.23% of the variation of dependent variable has been explained by the independent variables. The value of 6P.Er is less than (r). This states that there is a significant relationship between deposits and interest earned.

In conclusion, we can say that the relationship between 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.

V. Coefficient of Correlation between Loan & Advances and Interest Paid

The coefficient of correlation between loan and advances and interest paid to 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 and advances has any role to play in decrease in interest expenses and vice versa.

The following table no: 4.31 shows the values of r, r^2, P.Er and 6P.Er of NABIL, SCBNL and HBL during the period of study.

Table No. 4.31

Correlation between Loan & Advances and Interest Paid

Bank	Evaluation Criteria			
	R	r^2	P.Er.	6P.Er.
NABIL	0.9623	0.9260	0.0223	0.1339
SCBNL	0.9309	0.8666	0.0402	0.2415
HBL	0.9726	0.9460	0.0163	0.0978

Source: Appendix F - 13, 14 & 15

The calculated values of (r) of all the three banks show a positive relationship between loan and advances and interest paid. The coefficient of determination in case of NABIL shows 92.60% of variation of the dependent variables has been explained by independent variables. In the case of SCBNL the coefficient of determination i.e. 86.66% of the variation of the dependent variables has been explained by independent variables. Similarly, in the case of HBL, 94.60% variation of the dependent variables has been explained by independent variables. The coefficient of determination (r^2) in case of NABIL and HBL shows a higher degree of dependency.

The value of 6.P.Er is considerably lower than (r) in all the cases, which states that there is significant relationship between loan and advances and interest paid for the above mentioned banks.

In conclusion, we can say that, banks can establish significant relationship between the loan & advances and interest paid because the 6P.Er is lower than coefficient of correlation.

VI. 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 no: 4.32 shows the value of r, r^2, P.Er, and 6P.Er between these two variables of NABIL, SCBNL and HBL.

Table No. 4.32

Correlation between Total Working Fund and Net Profit

Bank	Evaluation Criteria			
	R	r^2	P.Er.	6 P.Er.
NABIL	0.9316	0.0087	0.2990	1.7941
SCBNL	0.9779	0.9563	0.0132	0.0791
HBL	0.3875	0.1502	0.2563	1.5380

Source: Appendix F - 16, 17 & 18

The coefficient of correlating (r) between total assets and net profit in case of NABIL is 0.9316, which indicates a positive relationship between these variables. The coefficient of determination (r^2) is 0.0087, which shows that 0.87% of the variation of the dependent variable has been explained by independent variable. The value of 6.PE.r is greater than 'r'. There exists an insignificant relation between the variables.

In the case of SCBNL, the coefficient of correlation (r) between total assets and net profit is 0.9779, which shows a positive relationship. The coefficient of determination (r^2) is 0.9563, which indicates that 95.63% of the variation of the dependent variable has been explained by the independent variables. The value of 6P.Er is lower than (r), which states that there is significant relationship between these variables.

The coefficient of correlating (r) between total assets and net profit in case of HBL is -0.3875, which indicates a positive relationship between variables. The coefficient of determination (r^2) is 0.1502, which shows that 15.02% of the variation of the dependent variable has been explained by independent variable. The value of 6.PE.r is greater than 'r'. There exists an insignificant relation between the variables.

In conclusion we can say that NABIL and HBL have insignificant relationship between total working fund and net profit.

4.2.2. 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, SCBNL and HBL. These topics analyzes the trend of deposits, loan and advances, total investment and net profit and its projection for next five years the basis of past performance and records available.

The projections are based on the following assumptions:

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

I. Analysis of Trend Value of Deposit:

The trend values of deposit from F/Y 2003/2004 to 2007/08, an attempt has been made to forecast the projection for next five years i.e. up to F/Y 2012/2013. The following table no: 4.33 shows the trend value of deposits from F/Y 2003/04 to F/Y 2012/13.

Table No. 4.33

Trend values of Deposit of NABIL, SCBNL and HBL

(Rs. in million)

F/Y	NABIL	SCBNL	HBL
2003/04	11792.54	19074.32	22061.42
2004/05	16227.31	21322.02	24551.35
2005/06	20662.08	23569.72	27041.28
2006/07	25096.85	25817.42	29531.21
2007/08	29531.62	28065.12	32021.1
2008/09	33966.4	30332.82	34511.07
2009/010	38401.17	32580.52	37001
2010/011	42835.94	34828.22	39490.94
2011/012	47270.71	37075.92	41980.87
2012/013	51705.48	39323.62	44470.8

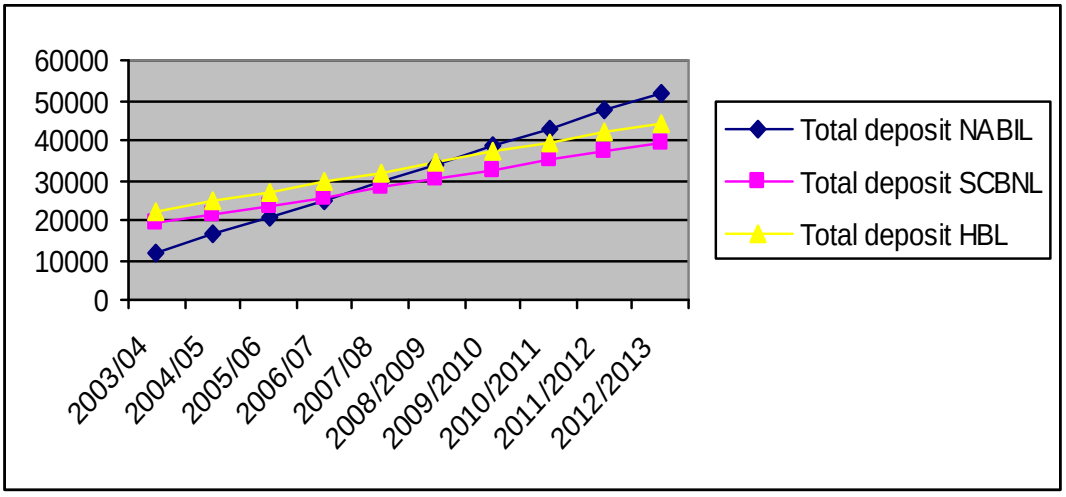
Source: Appendix No. G – 1, 2 and 3

The above table clearly shows that the loan and advances of all the sample 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 2012/013 is predicted to be Rs. 51705.48 and SCBNL is 39323.62. Similarly, the projection for HBL at the end of F/Y 2012/013 is Rs 44470.8 million.

From the above trend analysis, it is quite obvious that NABIL deposit collection is proportionately much better than HBL and SCBNL from F/Y 2000/2001 onwards. SCBNL has to launch new strategy to collect more deposits. The trend values of total deposit of NABIL, SCBNL and HBL are fitted in the following figure.

Figure No. 4.4

Trend values of Deposit of NABIL, SCBNL and HBL



II. Analysis of Trend Values of Loan and Advances:

Under this topic, the trend values of loan and advances of NABIL,SCBNL and HBL has been calculated for five years from F/Y 2003/04 to 2007/08 and the forecast for next five years from 2009/010 to 2012/013. The analysis of trend value of loan and advances of three banks are presented in below table no 4.34.

Table No. 4.34

Trend values of Loan and Advances of NABIL, SCBNL and HBL

(Rs. in million)

F/Y	NABIL	SCBNL	HBL
2003/04	7459.96	6146.792	11169.93
2004/05	10590.93	7844.407	13136.41
2005/06	13721.91	9542.022	15102.89
2006/07	16852.88	11239.64	17069.37
2007/08	19983.85	12937.25	19035.85
2008/09	23114.825	14634.87	21002.32
2009/010	26245.798	16332.48	22968.8
2010/011	29376.771	18030.1	24935.28
2011/012	32507.744	19727.71	26901.76
2012/013	35638.717	21425.33	28868.24

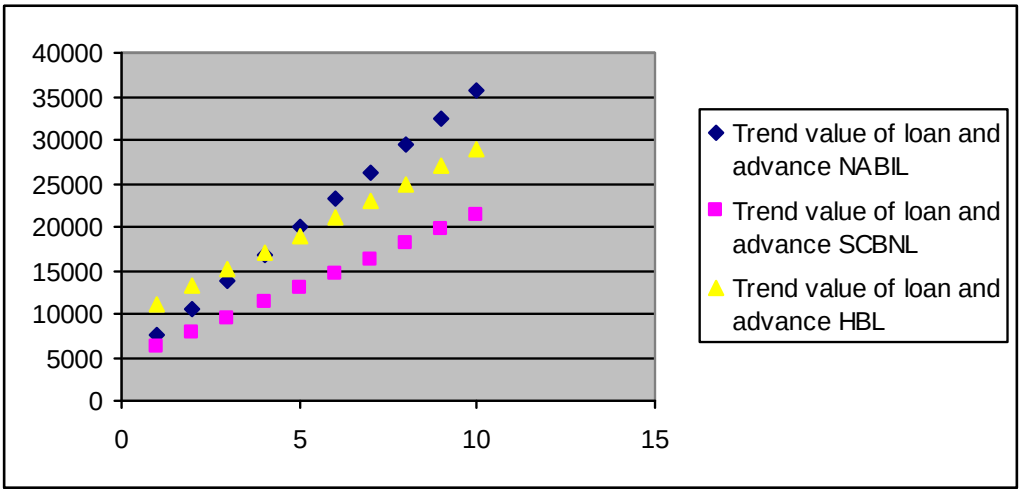
Source: Appendix No. G -4, 5 and 6

The above table clearly shows that the loan and advances of all the sample 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 2012/013 is predicted to be Rs. 35638.72 and SCBNL is 21425.33. Similarly, the projection for HBL at the end of F/Y 2012/013 is Rs 28868.24 million.

From above trend analysis, it is quite clear that loan and advances of NABIL is comparatively higher than HBL and SCBNL through out the trend projection period. The above trends values of loan and advances of NABIL, SCBNL and HBL are fitted in the trend line given in figure No.

Figure No. 4.5

Trend Values of Loan and Advances of NABIL, SCBNL and HBL



III. Analysis of Trend Values of Investment

Here, the trend values of total investment of concerned banks have calculated for five years and an attempt has been made to forecast the projections for next five years from 2009/010 to 2012/013. The following table no: 4.35 shows the trend value if investment from 2000/01 to 2012/013.

Table No. 4.35
Trend values of Investment of NABIL, SCBNL and HBL

(Rs. in million)

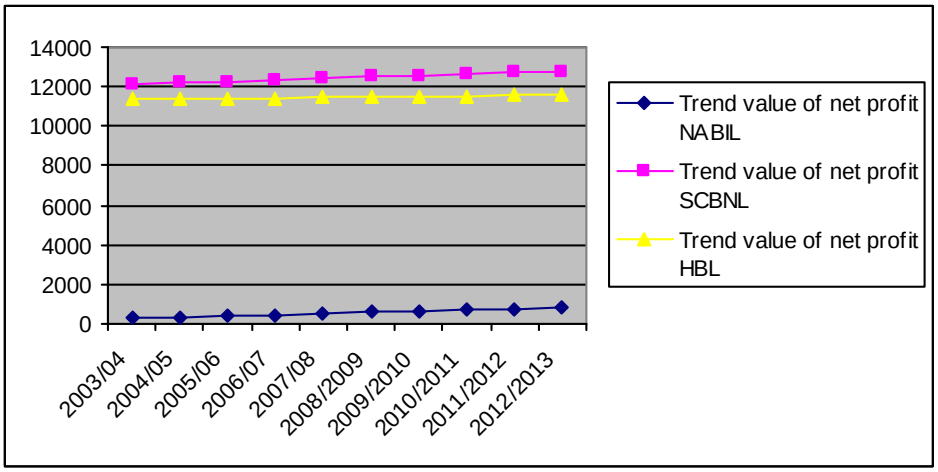
F/Y	NABIL	SCBNL	HBL
2003/04	262.99	12128.32	11352.53
2004/05	326.82	12199.79	11379.93
2005/06	390.64	12271.26	11407.33
2006/07	454.47	12342.73	11434.73
2007/08	518.29	12414.2	11462.13
2008/09	582.11	12485.67	11489.53
2009/010	645.93	12557.14	11516.93
2010/011	709.76	12628.62	11544.33
2011/012	773.58	12700.09	11571.73
2012/013	837.4	12771.56	11599.13

Source: Appendix No. G – 7, 8 and 9

From above table it is clear that the trend values of all three banks are in increasing trend. If other things remain unchanged total investment of NABIL is projected to be Rs 873.4 in F/Y 2012/013 and that of SCBNL to be Rs. 12771.56. Similarly, HBL has projected Rs. 11599.13 in the F/Y 2012/013.

The above table reveals that SCBNL's total investment is higher than that of HBL and NABIL through out the trend projection period. It can be said that all the three banks have followed the policy of maximizing their investment. The above calculated trend values are fitted in the trend line given in following figure.

Figure No. 4.6
Trend values of Investments of NABIL, SCBNL and HBL



IV. Analysis of Trend Values of Net Profit

Under this topic on the trend values of net profit from F/Y 2003/04 to 2007/08, an attempt has been made to forecast the projections for next five years i.e. up to F/Y 2012/013. The following table no: 4.36 shows the trend value of net profit form F/Y 2003/04 to 2012/013.

Table No. 4.36

Trend Values of Net Profit of NABIL, SCBNL and HBL

(Rs. in million)

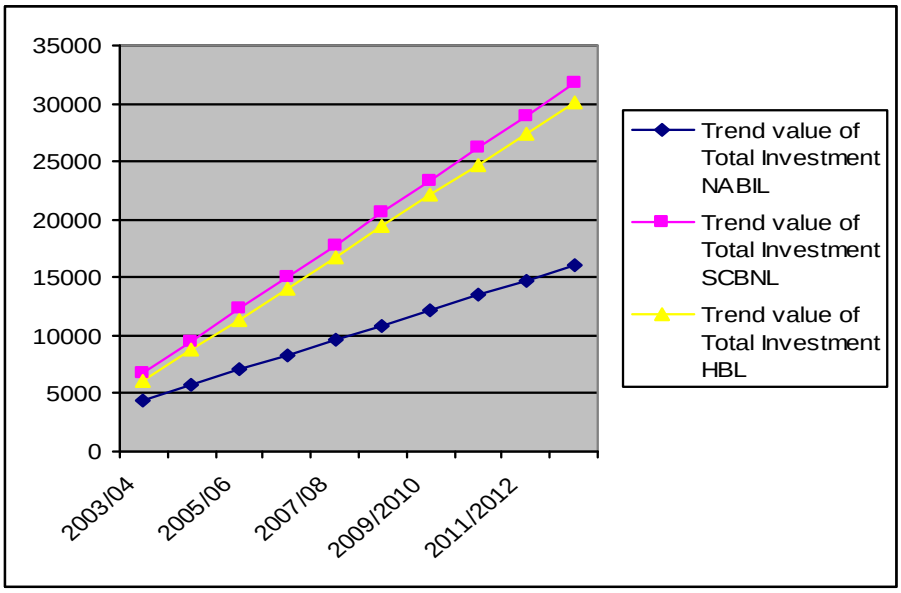
F/Y	NABIL	SCBNL	HBL
2003/04	4456.214	6710.332	6071.258
2004/05	5744.786	9490.796	8739.294
2005/06	7033.358	12271.26	11407.33
2006/07	8321.93	15051.72	14075.37
2007/08	9610.502	17832.19	16743.4
2008/09	10899.07	20612.65	19411.44
2009/010	12187.65	23393.12	22079.47
2010/011	13476.22	26173.58	24747.51
2011/012	14764.79	28954.04	27415.55
2012/013	16053.36	31734.51	30083.58

Source: Appendix No. G – 10, 11 and 12

From the above table it is clear that the trend value of the banks are in increasing trend. Other things remaining the same the trend value of the banks are in increasing trend. The trend value of SCBNL will be highest in F/Y 2012/013 i.e. Rs 31734.51 million. In case of NABIL net profit will be Rs 16053.36 million. Similarly, HBL net profit will be Rs. 30083.58 in the F/Y 2012/013. SCBNL's net profit is higher than that of NABIL and HBL through the review period. It can be said that all the banks have followed the policy of maximizing their net profit. The above calculated trend values are fitted in the trend line given in following figure.

Figure No. 4.7

Trend Values of Net Profit of NABIL, SCBNL and HBL



4.2.3. Test of Hypothesis

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

I. Formulating the Hypothesis
   a. Null Hypothesis
   b. Alternative Hypothesis
II. Computing the test statistic
III. Fixing the level of significance
IV. Deciding the two tail or one tail test
V. Making decision

Here, some of main hypothesis tests are calculated and decision is made. Null Hypothesis (H_0): $\mu 1 = \mu 2 = \mu 3$ i.e. there is no significant difference between mean ratios of two variables of NABIL, SCBNL and HBL.

Alternative Hypothesis (H_1): $\mu 1 \neq \mu 2 \neq \mu 3$ i.e. there is significant difference between mean ratios of two variables of NABIL, SCBNL and HBL.

t - test

In this research study, if we draw large number of small samples i.e. n < 30, and compute the mean for each sample and then plot the frequency distribution of these means, the resulting sampling distribution would be t- test. The samples are taken only for five years i.e. (5<30)

Assumptions:

I. The parent population from which the sample is drawn is normal or approximately normal.

II. The given sample is drawn by random sampling method.

III. The population standard deviation is not known.

I. Test of Hypothesis on Loan and Advances to Total Deposit Ratios

Table No. 4.37

F/Y	NABIL			SCBNL			HBL		
	x_1	x_1	x_1^2	x_2	x_2	x_2^2	X_3	X_3	x_3^2
2003/04	58.01	-8.17	66.7489	-9.72	94.4784	54.3	-1.19	1.4161	1.54
2004/05	72.57	6.39	40.8321	2.16	4.6656	50.07	-5.42	29.3764	3.18
2005/06	66.79	0.61	0.3721	-1.26	1.5876	55.27	-0.22	0.0484	4.17
2006/07	66.6	0.42	0.1764	2.7	7.29	56.57	1.08	1.1664	21.6
2007/08	66.94	0.76	0.5776	6.11	37.3321	61.23	5.74	32.9476	0.17
Sum	330.91		108.71		145.354	277.44		64.9549	30.67

Here,

$\bar{x}_1 \text{ X}\frac{x_1}{n}$ $\bar{x}_2 \text{ X}\frac{x_2}{n}$ $\bar{x}_3 \text{ X}\frac{x_3}{n}$

$\bar{x}_1 \text{ X}\frac{330.90}{5}$ $\bar{x}_2 \text{ X}\frac{145.354}{5}$ $\bar{x}_3 \text{ X}\frac{64.9549}{5}$

$\bar{x}_1 \text{ X}66.18$ $\bar{x}_2 \text{ X}29.07$ $\bar{x}_3 \text{ X}12.99$

a. Test of significant difference between NABIL and SCBNL

Here,

Null Hypothesis (H_0): $\bar{x}_1 = \bar{x}_2$ i.e. there is no significant different between two mean ratios of loan and advances to total deposit of NABIL and SCBNL.

Alternative Hypothesis (H_1): $\bar{x}_1 \neq \bar{x}_2$ (two - tailed test) i.e. there is significant different between mean ratios of loan and advances to total deposit of NABIL and SCBNL.

(Where $\bar{x}_1$ is mean ratio of NABIL and $\bar{x}_2$ is mean ratio of SCBNL)

The test statistic under H_0 is given by,

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{S_p^2 \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

Where,

S_p^2 = an unbiased estimate of common population variance and its value is computed by

$$S_p^2 = \frac{1}{n_1 + n_2 - 2}\left[x_1^2 + x_2^2\right] = \frac{1}{5+5-2}\left[108.71 + 277.44\right] = 48.2688$$

Now, Test statistic under H_0 is,

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{S_p^2 \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}} \qquad \text{or, } t = \frac{66.18 - 29.07}{\sqrt{48.2688 \left(\frac{1}{5} + \frac{1}{5}\right)}} = 8.4455$$

The calculated value of 't' = 8.4455

Degree of freedom = $n_1 + n_2 - 2 = 5+5-2 = 8$

Critical value = The tabulated value of 't' at 5% level significance for two tailed test and for 8 d.f. is 2.306.

Decision: Since calculated value of 't' is greater than tabulated value, the null hypothesis is rejected. Therefore we can conclude that there is significant different between two means i.e. loan and advances to total deposit of NABIL and SCBNL.

b. Test of significant different between NABIL and HBL

Here,

Null Hypothesis (H_0): $\bar{x}_1 = \bar{x}_3$ i.e. there is no significant different between two mean ratios of loan and advances to total deposit of NABIL and HBL.

Alternative Hypothesis (H_1): $\bar{x}_1 \neq \bar{x}_3$ (two - tailed test) i.e. there is significant different between mean ratios of loan and advances to total deposit of NABIL and HBL.

(Where $\bar{x}_1$ is mean ratio of NABIL and $\bar{x}_3$ is mean ratio of HBL)

The test statistic under H_0 is given by,

$$t = \frac{\bar{x}_1 - \bar{x}_3}{\sqrt{S_P^{\,2}\left(\frac{1}{n_1} + \frac{1}{n_3}\right)}}$$

Where,

$S_p^{\,2}$ = an unbiased estimate of common population variance and its value is computed by

$$S_P^{\,2} = \frac{1}{n_1 + n_3 - 2}\left[x_1^{\,2} + x_3^{\,2}\right] = \frac{1}{5 + 5 - 2}\left[108.71 + 30.67\right] = 17.4225$$

Now, test statistic under H_0 is,

$$t = \frac{\bar{x}_1 - \bar{x}_3}{\sqrt{S_P^{\,2}\left(\frac{1}{n_1} + \frac{1}{n_3}\right)}} \quad \text{or, } t = \frac{66.18 - 12.99}{\sqrt{17.4225\left(\frac{1}{5} + \frac{1}{5}\right)}} = 20.1486$$

The calculated value of 't' = 20.1486

Degree of freedom = $n_1 + n_2 - 2$ = 5+5-2= 8

Critical value = The tabulated value of 't' at 5% level significance for two tailed test and for 8 d.f is 2.306.

Decision: since calculated value of 't' is greater than tabulated value, the null hypothesis is rejected. Therefore we can conclude that there is significant different between two means i.e. loan and advances to total deposit of SCBNL and HBL.

II. Test of Hypothesis on Total Investment to Total Deposit Ratio

Table No. 4.38

F/Y	NABIL			SCBNL			HBL		
	x_1	x_1	x_1^2	X_2	x_2	x_2^2	x_3	x_3	x_3^2
2003/04	41.33	6.94	48.1636	53.68	-2.23	4.9729	42.22	0.2	0.04
2004/05	29.25	-5.14	26.4196	50.18	-5.73	32.8329	47.12	5.1	26.01
2005/06	31.93	-2.46	6.0516	55.67	-0.24	0.0576	41.1	-0.92	0.8464
2006/07	38.32	3.93	15.4449	54.99	-0.92	0.8464	39.35	-2.67	7.1289
2007/08	31.14	-3.25	10.5625	46.74	-9.17	84.0889	41.89	-0.13	0.0169
Sum	171.97		106.6422	261.26		122.799	211.68		34.0422

Here,

$\bar{x}_1 = \frac{x_1}{n}$ $\bar{x}_2 = \frac{x_2}{n}$ $\bar{x}_3 = \frac{x_3}{n}$

$\bar{x}_1 = \frac{171.97}{5}$ $\bar{x}_2 = \frac{261.26}{5}$ $\bar{x}_3 = \frac{211.68}{5}$

$\bar{x}_1 = 34.3940$ $\bar{x}_2 = 52.8520$ $\bar{x}_3 = 42.336$

a. Test of significant difference between NABIL and SCBNL

Here,

Null Hypothesis (H_0): $\bar{x}_1 = \bar{x}_2$ i.e. there is no significant different between two mean ratios of loan and advances to total deposit of NABIL and SCBNL.

Alternative Hypothesis (H_1): $\bar{x}_1 \neq \bar{x}_2$ (two - tailed test) i.e. there is significant different between mean ratios of loan and advances to total deposit of NABIL and SCBNL.

(Where $\bar{x}_1$ is mean ratio of NABIL and $\bar{x}_2$ is mean ratio of SCBNL)
The test statistic under H_0 is given by,

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{S_P^2 \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

Where,

S_p^2 = an unbiased estimate of common population variance and its value is computed by

$$S_P^2 = \frac{1}{n_1 + n_2 - 2}\left[\sum x_1^2 - \frac{(\sum x_1)^2}{n_1} + \sum x_2^2 - \frac{(\sum x_2)^2}{n_2}\right] = \frac{1}{5+5-2}[106.64 - 122.80] = 28.68$$

Now, the test statistic under H_0 is

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{S_P^2\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}} = \frac{34.3940 - 52.8520}{\sqrt{28.68\left(\frac{1}{5} + \frac{1}{5}\right)}} = -5.4496$$

The calculated value of 't' = -5.4496

Degree of freedom = $n_1 + n_2 - 2 = 5+5-2 = 8$

Critical value = The tabulated value of 't' at 5% level significance for two tailed test and for 8 d.f is 2.306.

Decision: since calculated value of 't' is less than tabulated value, the null hypothesis is accepted. Therefore we can conclude that there is no significant different between two means i.e. total investment to total deposit of NABIL and SCBNL.

b. Test of significant different between NABIL and HBL

Here,

Null Hypothesis (H_0): $\bar{x}_1 = \bar{x}_3$ i.e. there is no significant different between two mean ratios of total investment to total deposit of NABIL and HBL.

Alternative Hypothesis (H_1): $\bar{x}_1 \neq \bar{x}_3$ (two - tailed test) i.e. there is significant different between mean ratios of total investment to total deposit of NABIL and HBL.

(Where $\bar{x}_1$ is mean ratio of NABIL and $\bar{x}_3$ is mean ratio of HBL)

The test statistic under H_0 is given by,

$$t = \frac{\bar{x}_1 - \bar{x}_3}{\sqrt{S_P^2 \left(\frac{1}{n_1} + \frac{1}{n_3}\right)}}$$

Where,

S_p^2 = an unbiased estimate of common population variance and its value is computed by

$$S_P^2 = \frac{1}{n_1 + n_3 - 2}\left[\left(x_1^2 - \frac{(x_1)^2}{n_1}\right) + \left(x_3^2 - \frac{(x_3)^2}{n_3}\right)\right] = \frac{1}{5 + 5 - 2}\left[106.64 - 34.04\right] = 17.585$$

Now, test statistic under H_0 is,

$$t = \frac{\bar{x}_1 - \bar{x}_3}{\sqrt{S_P^2 \left(\frac{1}{n_1} + \frac{1}{n_3}\right)}} \quad \text{or, } t = \frac{34.3940 - 42.336}{\sqrt{17.585\left(\frac{1}{5} + \frac{1}{5}\right)}} = -2.9945$$

The calculated value of 't' = -2.9945

Degree of freedom = $n_1 + n_2 - 2 = 5+5-2= 8$

Critical value = The tabulated value of 't' at 5% level significance for two tailed test and for 8 d.f is 2.306.

Decision: Since calculated value of 't' is less than tabulated value, the null hypothesis is accepted. Therefore we can conclude that there is no significant different between two means i.e. total investment to total deposit of SCBNL and HBL.

III. Test of Hypothesis of Return on Loan and Advances Ratio:

Table No. 4.39

F/Y	NABIL			SCBNL			HBL		
	x_1	x_1	x_1^2	x_2	x_2	x_2^2	x_3	x_3	x_3^2
2003/04	5.56	0.92	0.8464	8.39	1.4	1.96	2.2	-0.25	0.0625
2004/05	4.9	0.26	0.0676	6.62	-0.37	0.1369	2.48	0.03	0.0009
2005/06	4.92	0.28	0.0784	7.37	0.38	0.1444	3.12	0.67	0.4489
2006/07	4.34	-0.3	0.09	6.59	-0.4	0.16	2.89	0.44	0.1936
2007/08	3.49	-1.15	1.3225	5.97	-1.02	1.0404	1.58	-0.87	0.7569
Sum	23.21		2.4049	34.94		3.4417	12.27		1.4628

Here,

$\bar{x}_1 = \frac{x_1}{n}$ $\bar{x}_2 = \frac{x_2}{n}$ $\bar{x}_3 = \frac{x_3}{n}$

$\bar{x}_1 = \frac{23.21}{5}$ $\bar{x}_2 = \frac{34.94}{5}$ $\bar{x}_3 = \frac{12.27}{5}$

$\bar{x}_1 = 4.642$ $\bar{x}_2 = 6.988$ $\bar{x}_3 = 2.458$

a. Test of significant difference between NABIL and SCBNL

Here,

Null Hypothesis (H_0): $\bar{x}_1 = \bar{x}_2$ i.e. there is no significant different between two mean ratios of return on loan and advances of NABIL and SCBNL.

Alternative Hypothesis (H_1): $\bar{x}_1 \neq \bar{x}_2$ (two - tailed test) i.e. there is significant different between mean ratios of return on loan and advances of NABIL and SCBNL.

(Where $\bar{x}_1$ is mean ratio of NABIL and $\bar{x}_2$ is mean ratio of SCBNL)

The test statistic under H_0 is given by,

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{S_P^2 \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

Where,

S_p^2 = an unbiased estimate of common population variance and its value is computed by

$S_P^2 = \frac{1}{n_1 + n_2 - 2}\left[\left(x_1^2 + \ldots\right) + \left(x_2^2 + \ldots\right)\right] = \frac{1}{5+5-2}[2.4049 + 3.4417] = 0.7308$

Now, the test statistic under H_0 is

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{S_P^2 \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}} = \frac{4.642 - 6.988}{\sqrt{0.7308\left(\frac{1}{5} + \frac{1}{5}\right)}} = -4.3391$$

The calculated value of 't' = -4.3391

Degree of freedom = $n_1 + n_2 - 2 = 5+5-2 = 8$

Critical value = The tabulated value of 't' at 5% level significance for two tailed test and for 8 d.f. is 2.306.

Decision: since calculated value of 't' is less than tabulated value, the null hypothesis is accepted. Therefore we can conclude that there is no significant different between two means i.e. return on loan and advances of NABIL and SCBNL.

b. Test of significant different between NABIL and HBL

Here,

Null Hypothesis (H_0): $\bar{x}_1 = \bar{x}_3$ i.e. there is no significant different between two mean ratios of return on loan and advances of NABIL and HBL.

Alternative Hypothesis (H_1): $\bar{x}_1 \neq \bar{x}_3$ (two - tailed test) i.e. there is significant different between mean ratios of return on loan and advances of NABIL and HBL.

(Where $\bar{x}_1$ is mean ratio of NABIL and $\bar{x}_3$ is mean ratio of HBL)

The test statistics under H_0 is given by,

$$t = \frac{\bar{x}_1 - \bar{x}_3}{\sqrt{S_P^2 \left(\frac{1}{n_1} + \frac{1}{n_3}\right)}}$$

Where,

S_p^2 = an unbiased estimate of common population variance and its value is computed by

$$S_P^2 = \frac{1}{n_1 + n_3 - 2}\left[\left(x_1^2 + \ldots + x_3^2\right) - \frac{1}{5 + 5 - 2}\left[2.4049 + 1.4628\right]\right] = 0.4835$$

Now, test statistic under H_0 is,

$$t = \frac{\bar{x}_1 - \bar{x}_3}{\sqrt{S_P^2 \left(\frac{1}{n_1} + \frac{1}{n_3}\right)}} \qquad \text{or, } t = \frac{4.642 - 2.458}{\sqrt{0.4835\left(\frac{1}{5} + \frac{1}{5}\right)}} = 4.9662$$

The calculated value of 't' = 4.9662

Degree of freedom = $n_1 + n_2 - 2 = 5+5-2= 8$

Critical value = The tabulated value of 't' at 5% level significance for two tailed test and for 8 d.f is 2.306.

Decision: Since calculated value of 't' is greater than tabulated value, the null hypothesis is rejected. Therefore we can conclude that there is significant different between two means i.e. return on loan and advances of SCBNL and HBL.

IV. Test of Hypothesis of Total Interest Earned to Total Working Fund Ratio

Table No. 4.40

F/Y	NABIL			SCBNL			HBL		
	x_1	x_1	x_1^2	X_2	x_2	x_2^2	x_3	x_3	x_3^2
2003/04	5.98	0.13	0.0169	4.41	-0.31	0.0961	5.03	-0.27	0.0729
2004/05	6.22	0.37	0.1369	4.84	0.12	0.0144	5.28	-0.02	0.0004
2005/06	5.87	0.02	0.0004	4.62	-0.1	0.01	5.52	0.22	0.0484
2006/07	5.83	-0.02	0.0004	4.94	0.22	0.0484	5.3	0	0
2007/08	5.33	-0.52	0.2704	4.77	0.05	0.0025	5.43	0.13	0.0169
Sum	29.23		0.425	23.58		0.1714	26.56		0.1386

Here,

$\bar{x}_1 \text{ X}\frac{x_1}{n}$ $\bar{x}_2 \text{ X}\frac{x_2}{n}$ $\bar{x}_3 \text{ X}\frac{x_3}{n}$

$\bar{x}_1 = \frac{29.23}{5}$ $\bar{x}_2 \text{ X}\frac{23.58}{5}$ $\bar{x}_3 \text{ X}\frac{26.56}{5}$

$\bar{x}_1 = 5.846$ $\bar{x}_2 = 4.716$ $\bar{x}_3 = 5.312$

a. Test of significant difference between NABIL and SCBNL

Here,

Null Hypothesis (H_0): $\bar{x}_1 = \bar{x}_2$ i.e. there is no significant different between two mean ratios of total interest earned to total working fund of NABIL and SCBNL.

Alternative Hypothesis (H_1): $\bar{x}_1 \neq \bar{x}_2$ (two - tailed test) i.e. there is significant different between mean ratios of total interest earned to total working fund of NABIL and SCBNL.

(Where $\bar{x}_1$ is mean ratio of NABIL and $\bar{x}_2$ is mean ratio of SCBNL)

The test statistic under H_0 is given by,

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{S_p^2 \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

Where,

S_p^2 = an unbiased estimate of common population variance and its value is computed by

$$S_p^2 = \frac{1}{n_1 + n_2 - 2}\left[\left(x_1^2 - \left(x_2^2\right)\right] = \frac{1}{5 + 5 - 2}\left[0.425 + 0.1714\right] = 0.0746$$

Now, the test statistic under H_0 is

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{S_p^2 \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}} = \frac{5.846 - 4.716}{\sqrt{0.0746\left(\frac{1}{5} + \frac{1}{5}\right)}} = 6.5415$$

The calculated value of 't' = 6.5415

Degree of freedom = $n_1 + n_2 - 2 = 5+5-2= 8$

Critical value = The tabulated value of 't' at 5% level significance for two tailed test and for 8 d.f is 2.306.

Decision: since calculated value of 't' is greater than tabulated value, the null hypothesis is rejected. Therefore we can conclude that there is significant different between two means i.e. total interest earned to total working fund of NABIL and SCBNL.

b. Test of significant different between NABIL and HBL

Here,

Null Hypothesis (H_0): $\bar{x}_1 = \bar{x}_3$ i.e. there is no significant different between two mean ratios of total interest earned to total working fund of NABIL and HBL.

Alternative Hypothesis (H_1): $\bar{x}_1 \neq \bar{x}_3$ (two - tailed test) i.e. there is significant different between mean ratios of total interest earned to total working fund NABIL and HBL.

(Where $\bar{x}_1$ is mean ratio of NABIL and $\bar{x}_3$ is mean ratio of HBL)

The test statistic under H_0 is given by,

$$t = \frac{\bar{x}_1 - \bar{x}_3}{\sqrt{S_P^2 \left(\frac{1}{n_1} + \frac{1}{n_3}\right)}}$$

Where,

S_p^2 = an unbiased estimate of common population variance and its value is computed by

$$S_P^2 = \frac{1}{n_1 + n_3 - 2}\left[\left(x_1^2 + \ldots\right) + \left(x_3^2 + \ldots\right)\right] = \frac{1}{5 + 5 - 2}\left[0.425 + 0.1386\right] = 0.0705$$

Now, test statistic under H_0 is,

$$t = \frac{\bar{x}_1 - \bar{x}_3}{\sqrt{S_P^2 \left(\frac{1}{n_1} + \frac{1}{n_3}\right)}} \quad \text{or, } t = \frac{5.846 - 5.312}{\sqrt{0.0705\left(\frac{1}{5} + \frac{1}{5}\right)}} = 3.1799$$

The calculated value of 't' = 3.1799

Degree of freedom = $n_1 + n_2 - 2 = 5+5-2 = 8$

Critical value = The tabulated value of 't' at 5% level significance for two tailed test and for 8 d.f. is 2.306.

Decision: Since calculated value of 't' is greater than tabulated value, the null hypothesis is rejected. Therefore we can conclude that there is significant different between two means i.e. total interest earned to total working fund of SCBNL and HBL.

V. Test of Hypothesis of Cash and Bank Balance to Current Assets Ratio

Table No. 4.41

F/Y	NABIL			SCBNL			HBL		
	x_1	X_1	x_1^2	x_2	x_2	x_2^2	x_3	x_3	x_3^2
2003/04	5.92	0.95	0.9025	8.61	2.22	4.9284	8.19	-1.26	1.5876
2004/05	3.41	-1.56	2.4336	5.09	-1.3	1.69	7.32	-2.13	4.5369
2005/06	2.88	-2.09	4.3681	5.02	-1.37	1.8769	15.83	6.38	40.7044
2006/07	5.25	0.28	0.0784	7.06	0.67	0.4489	14.96	5.51	30.3601
2007/08	7.38	2.41	5.8081	6.19	-0.2	0.04	0.93	-8.52	72.5904
Sum	24.84		13.5907	31.97		8.9842	47.23		149.7794

Here, $\bar{x}_1$ $\bar{x}_2$ $\bar{x}_3$

$\bar{x}_1 = \frac{x_1}{n}$ $\bar{x}_2 = \frac{x_2}{n}$ $\bar{x}_3 = \frac{x_3}{n}$

$\bar{x}_1 = \frac{24.84}{5}$ $\bar{x}_2 = \frac{31.97}{5}$ $\bar{x}_3 = \frac{47.23}{5}$

$\bar{x}_1 = 4.968$ $\bar{x}_2 = 6.394$ $\bar{x}_3 = 9.446$

a. Test of significant difference between NABIL and SCBNL

Here,

Null Hypothesis (H_0): $\bar{x}_1 = \bar{x}_2$ i.e. there is no significant different between two mean ratios of cash and bank balance to current assets of NABIL and SCBNL.

Alternative Hypothesis (H_1): $\bar{x}_1 \neq \bar{x}_2$ (two - tailed test) i.e. there is significant different between mean ratios of cash and bank balance to current assets of NABIL and SCBNL.

(Where $\bar{x}_1$ is mean ratio of NABIL and $\bar{x}_2$ is mean ratio of SCBNL)

The test statistic under H_0 is given by,

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{S_p^2 \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

Where,

S_p^2 = An unbiased estimate of common population variance and its value is computed by

$$S_p^2 = \frac{1}{n_1 + n_2 - 2}\left[\sum x_1^2 - \frac{1}{5+5-2}\left(13.5907 + 8.9842\right)\right] = 2.8219$$

Now, the test statistic under H_0 is

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{S_p^2 \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}} = \frac{4.968 - 6.394}{\sqrt{2.8219\left(\frac{1}{5} + \frac{1}{5}\right)}} = -1.3422$$

The calculated value of 't' = -1.3422

Degree of freedom = $n_1 + n_2 - 2 = 5+5-2 = 8$

Critical value = The tabulated value of 't' at 5% level significance for two tailed test and for 8 d.f is 2.306.

Decision: since calculated value of 't' is less than tabulated value, the null hypothesis is accepted. Therefore we can conclude that there is no significant different between two means i.e. cash and bank balance to current assets of NABIL and SCBNL.

b. Test of significant different between NABIL and HBL

Here,

Null Hypothesis (H_0): $\bar{x}_1 = \bar{x}_3$ i.e. there is no significant different between two mean ratios of cash and bank balance to current assets of NABIL and HBL.

Alternative Hypothesis (H_1): $\bar{x}_1 \neq \bar{x}_3$ (two - tailed test) i.e. there is significant different between mean ratios of cash and bank balance to current assets of NABIL and HBL.

(Where $\bar{x}_1$ is mean ratio of NABIL and $\bar{x}_3$ is mean ratio of HBL)

The test statistics under H_0 is given by,

$$t = \frac{\bar{x}_1 - \bar{x}_3}{\sqrt{S_P^2 \left(\frac{1}{n_1} + \frac{1}{n_3}\right)}}$$

Where,

S_p^2 = An unbiased estimate of common population variance and its value is computed by

$$S_P^2 = \frac{1}{n_1 + n_3 - 2}\left[\left(x_1^2 + \ldots + x_3^2\right) - \frac{1}{5+5-2}\left[13.5907 + 149.7794\right]\right. = 20.4213$$

Now, test statistic under H_0 is,

$$t = \frac{\bar{x}_1 - \bar{x}_3}{\sqrt{S_P^2 \left(\frac{1}{n_1} + \frac{1}{n_3}\right)}} \qquad \text{or, } t = \frac{4.968 - 9.446}{\sqrt{20.4213\left(\frac{1}{5} + \frac{1}{5}\right)}} = -1.5668$$

The calculated value of 't' = -1.5668

Degree of freedom = $n_1 + n_2 - 2 = 5+5-2= 8$

Critical value = The tabulated value of 't' at 5% level significance for two tailed test and for 8 d.f is 2.306.

Decision: Since calculated value of 't' is less than tabulated value, the null hypothesis is accepted. Therefore we can conclude that there is no significant different between two means i.e. cash and bank balance to current assets of SCBNL and HBL.

VI. Test of Hypothesis of Loan and Advances to Current Asset Ratio

Table No. 4.42

F/Y	NABIL			SCBNL			HBL		
	x_1	x_1	x_1^2	X_2	x_2	x_2^2	x_3	x_3	x_3^2
2003/04	49.98	-8.19	67.0761	27.28	-2.97	8.8209	48.93	-28.48	811.1104
2004/05	64.6	6.43	41.3449	37.34	7.09	50.2681	45.92	-31.49	991.6201
2005/06	58.99	0.82	0.6724	35.13	4.88	23.8144	134.97	57.56	3313.154
2006/07	58.27	0.1	0.01	36.67	6.42	41.2164	144.67	67.26	4523.908
2007/08	59	0.83	0.6889	41.41	11.16	124.546	12.55	-64.86	4206.82
Sum	290.84		109.7923	177.85		248.665	387.04		13846.61

Here,

$\bar{x}_1 \text{ X} \frac{x_1}{n}$ $\bar{x}_2 \text{ X} \frac{x_2}{n}$ $\bar{x}_3 \text{ X} \frac{x_3}{n}$

$\bar{x}_1 = \frac{290.84}{5}$ $\bar{x}_2 \text{ X} \frac{177.85}{5}$ $\bar{x}_3 \text{ X} \frac{387.04}{5}$

$\bar{x}_1 = 58.17$ $\bar{x}_2 = 35.57$ $\bar{x}_3 = 77.41$

a. Test of significant difference between NABIL and SCBNL

Here,

Null Hypothesis (H_0): $\bar{x}_1 = \bar{x}_2$ i.e. there is no significant different between two mean ratios of loan and advances to current assets of NABIL and SCBNL.

Alternative Hypothesis (H_1): $\bar{x}_1 \mid \bar{x}_2$ (two - tailed test) i.e. there is significant different between mean ratios of loan and advances to current assets of NABIL and SCBNL.

(Where $\bar{x}_1$ is mean ratio of NABIL and $\bar{x}_2$ is mean ratio of SCBNL)

The test statistic under H_0 is given by,

$$t \text{ X} \frac{\bar{x}_1 \text{ Z } \bar{x}_2}{\sqrt{S_P^2 \quad \frac{1}{n_1} \Gamma \frac{1}{n_2}}}$$

Where,

S_p^2 = an unbiased estimate of common population variance and its value is computed by

$$S_P^2 = \frac{1}{n_1 + n_2 - 2}\left[\sum x_1^2 - \left(\sum x_1\right)^2 \Big/ n_1 + \sum x_2^2 - \left(\sum x_2\right)^2 \Big/ n_2\right] = \frac{1}{5+5-2}\left[109.7923 - 246.665^2/5\right] = 44.5571$$

Now, the test statistic under H_0 is

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{S_P^2\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}} = \frac{58.17 - 35.57}{\sqrt{44.5571\left(\frac{1}{5} + \frac{1}{5}\right)}} = 5.3533$$

The calculated value of 't' = 5.3533

Degree of freedom = $n_1 + n_2 - 2 = 5+5-2= 8$

Critical value = The tabulated value of 't' at 5% level significance for two tailed test and for 8 d.f. is 2.306.

Decision: since calculated value of 't' is greater than tabulated value, the null hypothesis is rejected. Therefore we can conclude that there is significant different between two means i.e. loan and advances to current assets of NABIL and SCBNL.

b. Test of significant different between NABIL and HBL

Here,

Null Hypothesis (H_0): $\bar{x}_1 = \bar{x}_3$ i.e. there is no significant different between two mean ratios of loan and advances to current assets of NABIL and HBL.

Alternative Hypothesis (H_1): $\bar{x}_1 \neq \bar{x}_3$ (two - tailed test) i.e. there is significant different between mean ratios of loan and advances to current assets of NABIL and HBL.

(Where $\bar{x}_1$ is mean ratio of NABIL and $\bar{x}_3$ is mean ratio of HBL)

The test statistics under H_0 is given by,

$$t = \frac{\bar{x}_1 - \bar{x}_3}{\sqrt{S_P^2\left(\frac{1}{n_1} + \frac{1}{n_3}\right)}}$$

Where,

S_p^2 = An unbiased estimate of common population variance and its value is computed by

$$S_P^2 = \frac{1}{n_1 + n_3 - 2}\left[\left(x_1^2 - \frac{(x_1)^2}{n_1}\right) + \left(x_3^2 - \frac{(x_3)^2}{n_3}\right)\right] = \frac{1}{5+5-2}\left[109.7923 - 13846.61\right] = 1744.5503$$

Now, test statistic under H_0 is,

$$t = \frac{\bar{x}_1 - \bar{x}_3}{\sqrt{S_P^2\left(\frac{1}{n_1} + \frac{1}{n_3}\right)}} \quad \text{or, } t = \frac{58.17 - 77.41}{\sqrt{1744.5503\left(\frac{1}{5} + \frac{1}{5}\right)}} = -0.7283$$

The calculated value of 't' = -0.7283

Degree of freedom = $n_1 + n_2 - 2 = 5+5-2 = 8$

Critical value = The tabulated value of 't' at 5% level of significance for two tailed test and for 8 d.f is 2.306.

Decision: Since calculated value of 't' is less than tabulated value, the null hypothesis is accepted. Therefore we can conclude that there is no significant different between two means i.e. loan and advances to current assets of NABIL and HBL.

4.3 Major Findings of the Study

The basic analysis required for this study having completed. The final and 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 as presented below.

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

I. Liquidity Ratio

The liquidity position of NABIL, SCBNL and HBL reveals that:

- From the analysis of current ratio, it is found that the mean ratio of NABIL and SCBNL is slightly equal and the ratio of HBL is lowest. It

means NABIL and SCBNL has maintained the higher liquidity and lower risk in compared to HBL.

- The mean ratio of cash of bank balance to total deposits of SCBNL is higher than NABIL and HBL. It states that the liquidity position of SCBNL is better in this regard because of high percentage of liquid assets. On the contrary, a high liquid also indicates the inability of the bank to mobilize its current assets. The ratios of SCBNL are more consistency than other banks.
- The mean ratio of cash and bank balance to current asset of HBL is higher than NABIL and SCBNL. It states that the liquidity position of HBL is better in this regard. And the ratio of HBL is more variable than that of other two compared banks. The ratio of NABIL is less consistency.
- The mean ratio of investment on government securities to current asset of SCBNL is higher in compared to NABIL and HBL. It reveals that it has invested more of its fund on government securities. The ratios of SCBNL are more consistency.
- The mean ratio of loan and advances to current assets of HBL is highest. The variability of ratios of HBL is slightly greater than other two banks. HBL seems to be less consistency and NABIL seems to be more consistency.

The above result shows that the liquidity positions of all three banks are satisfactory. NABIL has the highest current ratio which justifies that it is capable enough to meet its current obligations and also it has moderate loan and advances to current assets ratio. NABIL has lowest cash & bank balance, Cash and bank balance with current asset and Investment on government securities. The investment policy is better than other banks. In case of SCBNL, it has highest cash and bank balance to total deposit and investment on government securities. It means SCBNL has invested more of its funds in government securities but has maintained low investment policy on loan and advances. HBL has highest cash and bank balance to current asset and loan and advance assets ratio. It indicates that it has lower investment policy on current

assets ratio and moderate in cash and bank balance to total deposit and investment on government securities.

II. Assets Management Ratio (Activity Ratio):

The assets management ratio of NABIL, SCBNL and HBL reveals that:

- The mean ratio of loan and advances to total deposit of NABIL is highest. SCBNL is lowest. In terms of consistency, NABIL seems to be moderate consistency.
- The mean ratio of total investment to total deposit of SCBNL is higher than NABIL and HBL. The ratio of SCBNL is more consistency and the ratio of NABIL is less consistency.
- In case of loan and advances to working fund ratio, the mean ratio of NABIL is highest. The ratio of HBL is more consistent than that of NABIL and SCBNL.
- The mean ratio of investment on government securities to total working fund of SCBNL is greater than other banks. NABIL has lower mean ratio. SCBNL is in moderate position. HBL seems to be more consistency and NABIL seems to be less consistency.
- The mean ratio of investment on shares and debentures to total working fund of NABIL is significantly higher than SCBNL and HBL. The ratio of SCBNL is less consistency and ratio of NABIL is more consistency.
- The mean ratio of total OBS operation to loan and advances of HBL is higher than NABIL and lower than SCBNL. It seems to be less consistency.
- The mean ratio of loan loss provision of HBL is highest and NABIL is lowest. NABIL seems to be less consistency.

From the above findings, it helps to conclude that NABIL has been more successful in mobilization of its total deposits and working fund as loan & advances, investment in shares and debentures to total working fund. On the other hand, SCBNL appears to be stronger in mobilization of total deposit as investment in risk free government securities and total OBS operation to loan &advances ratios. HBL seems to be moderate in asset management ratios. The

investment policy of NABIL has better than other two banks towards loan and advances and in other companies shares and debentures. NABIL has successfully managed their assets towards different income generation activities.

III. Profitability Ratio

The profitability ratios of NABIL, SCBNL and HBL reveal that:

- The mean ratio of return on loan and advances of SCBNL has been found to be significantly greater than other two banks. The ratios of SCBNL are fewer variables and more consistency.
- The mean ratio of return on total working fund of NABIL is greater than SCBNL and HBL. On the other hand, the ratio of NABIL is more consistency and moderate variables in compared to other banks.
- The mean ratio on equity capital ratio of NABIL is higher than HBL and lower than SCBNL. NABIL seems to be moderate consistency in this case.
- The mean ratio of total interest earned to total working fund of NABIL is highest of all. The total interest earned to total outside assets ratio of the NABIL is more variable in comparison to SCBNL and HBL.
- The mean ratio of total interest earned to total operating income of HBL is higher than other two banks. HBL seems to be more consistency and moderate variables.
- The mean ratio of total interest earned to total outside assets of NABIL is higher than other compared banks. The ratio of NABIL is more consistency and more variables.
- The mean ratio of total interest paid to total working fund of NABIL is greater than SCBNL and lower than HBL. It means NABIL has paid higher interest than SCBNL and lower than HBL. The ratio of HBL is more consistent than that of other two compared banks.

On the basis of above, we can conclude that NABIL has been more successful in mobilization of its funds in interest bearing assets to earn higher interest income form working fund and outside assets. SCBNL has been more

successful in maintaining its higher return on loan and advances and equity capital. HBL is better in interest earning from its total operating income and also better position than other banks from interest payment point of view.

IV. Risk Ratio

The Risk ratio of NABIL, SCBNL and HBL reveals that,

- The mean liquidity risk ratio of SCBNL is higher than NABIL and than HBL. NABIL has lower mean liquidity risk ratio. On the contrary, HBL seems to be moderate stable and less variable.
- The mean credit risk ratio of NABIL is higher than SCBNL and HBL. SCBNL has lower risk ratio. NABIL seems to be less stable and HBL seems to be more stable.
- The mean capital risk ratio of HBL is higher than NABIL and lower than SCBNL. HBL seems to be less consistency and NABIL seems to be more consistency.

Based on above findings we can conclude that NABIL is in lower position in liquidity and capital risk. It has more credit risk. SCBNL has low credit risk ratio than NABIL and HBL. NABIL and SCBNL have greater exposure to risk in its financial operations.

V. Growth Ratio

The growth ratio of NABIL, SCBNL and HBL reveals that,

- The growth ratio of deposits of NABIL is positive higher than HBL and SCBNL. SCBNL has lower growth rate. It means the performance of SCBNL is poorer in collecting more deposit in comparison to other banks year by year. NABIL has highest growth ratio of deposit.
- The growth ratio of total loan and advances of HBL is lower than NABIL and SCBNL. It means the performance of HBL to grant loan and advances in compared to studied banks is not good. NABIL seems to stronger in this case.
- The growth ratio of total investment of SCBNL is lower than HBL and NABIL. HBL has good performance of investing in different sectors.

- The growth ratio of net profit of HBL is higher than NABIL and SCBNL. SCBNL has lower ratio. It means that the earning profit from various sectors is better than other banks.

Based on the above findings, we can conclude that, NABIL has been more successful in increasing its deposits and loan & advances but HBL poor condition. HBL has been more successful increasing in total investment and Net profit during the study period, but less successful in deposit collection, loan & advances and investing. SCBNL is moderate. Among three banks, NABIL'S strategy of shedding deposits seems to be off the tune. HBL needs to seriously rethink about its strategy.

VI. Co-efficient of Correlation Analysis

Co-efficient of correlation between different variables of NABIL, SCBNL and HBL reveal that:

- NABIL has a higher value of coefficient of correlation between deposits and loan and advances than HBL and SCBNL. This indicates that NABIL is better position of it in mobilization of deposits as loan and advances in compared to other banks. HBL has lower value. It means it has poor performance.
- The coefficient of correlation between deposits and total investment of HBL is lower than SCBNL and NABIL. It indicates that HBL is worst in total deposit in mobilizing as on investment. NABIL has highest value.
- The coefficient of correlation between deposit and net profit of all three banks NABIL, SCBNL and HBL has positive value. HBL has highest value, whereas the coefficient of correlation between the same variables in case of SCBNL has a lower positive value. This indicates that HBL is capable to earn net profit by mobilizing its total deposit in compared other banks.
- The coefficient of correlation between deposits and interest earned in case of SCBNL is highest, whereas HBL has a moderate value of

coefficient of correlation. NABIL has lower positive value. This indicates that SCBNL has earned higher interest on deposits

- The coefficient of correlation between loan & advances and interest paid of all three banks has positive value. SCBNL has highest negative value. HBL has lowest value. This indicates that SCBNL has paid high interest. NABIL is in moderate position.
- The coefficient of correlation between total working fund and net profit in case of NABIL is positive and highest value. SCBNL has lowest positive value. This indicates that NABILHBL has good capacity to earn net profit by mobilizing its working fund.

In conclusion, we can say that there is a significant relationship between deposits and loan and advances, deposits and net profit, deposit and interest earned in case of NABIL, and the relationship is insignificant between deposits and investment, total working fund and net profit.

In case of SCBNL, five exists a significant relationship between deposits and loan and advances, deposits and net profit, deposit and interest earned, loan and advances and interest paid, total working fund and net profit whereas the relationship in insignificant between deposits and investments only one.

In case of HBL, there is a significant relationship between deposits and loan & advances, deposit and investment, deposit and net profit, loan & advances and interest paid, total working fund and net profit where as insignificant relationship between deposit and interest earned.

VII. 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 years of NABIL, SCBNL and HBL reveals that:

- The deposit trend of the banks NABIL, SCBNL and HBL has an increasing trend. The total deposit of NABIL is predicted to be 51705.48 million and that of SCBNL to be 39923.62 million at the end of F/Y 2012/013. Similarly, the total deposit of HBL is predicted to be 44470.8

million. The deposit collection of NABIL is much better than other two banks.

- The loan and advance of all the sample banks have an increasing trend. The total loan and advance of NABIL is predicted to be 35638.72 million and that of SCBNL to be 21425.33 million at the end of F/Y 2012/013. Similarly, the amount is predicted to be 28868.24 million. The loan and advances of NABIL is much better in compared to SCBNL and HBL.
- The total investment of the banks NABIL, SCBNL and HBL has an increasing trend. The total investment of NABIL is projected 16053.36 million and that of SCBNL is 31734.51 million by the end F/Y 2012/013. HBL is predicted to be 30083.58 million at the end of F/Y 2012/013. NABIL seems to have much focused policy with regards to total investment than SCBNL and HBL.
- The net profits of all the three banks are in an increasing trend. The net profit of NABIL and SCBNL is predicted at 837.40 million and 12771.56 million respectively by the end of F/Y 2012/013. Similarly, HBL is predicted to be 11599.13 million. The position of SCBNL with regard to utilization of the fund to earn profit is better than NABIL and HBL.

VIII. Test of Hypothesis

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

- There is significance difference between mean ratio of loan and advances to total deposit of NABIL and SCBNL. There is also significant difference between NABIL & HBL.
- There is no significant difference between mean ratio of total investment to total deposit of NABIL & SCBNL and NABIL & HBL.
- There is no significant difference between mean ratio of return on loan and advances of NABIL & SCBNL. There is significant difference between NABIL & HBL.

- There is significant difference between mean ratios of total interest earned to total working fund of NABIL & HBL and NABIL & SCBNL.
- There is no significant difference between mean ratio of cash and bank balance to current assets of NABIL & SCBNL and NABIL & HBL.
- There is significant difference between mean ratio of loan and advances to current assets of NABIL & SCBNL. There is no significant difference between NABIL & HBL.

CHAPTER FIVE
SUMMARY, CONCLUSIONS AND ECOMMENDATIONS

The chapter includes two aspects of the study. The first aspects are to focus on summarizing the fact finding of the study and making conclusion remarks upon them. While second aspects of the study focuses on making some useful suggestions and recommendations based on findings of the study for further improvement of the banks. This would be meaningful to the top management of the bank to initiate action and achieve the desired results. The objective of the researcher is not only to point out errors and mistakes but also to correct them and give directions for further growth and improvement.

5.1 Summary and Conclusion

The development of any country largely depends upon its economic development. Economic development demands transformation of savings into the actual investments. Capital formation is the prerequisite in setting the overall pace of the economic development of a country. It is financial institutions that transfer funds from surplus spending unit to deficit units.

Banking sector plays an important role in the economic development of the country. Joint venture banks have been helpful in transferring foreign investment and advanced technology from one country to another. The liberal trade and investment policies have facilitated joint venture bank that is greater in developing countries like Nepal. In financial sector, there are various commercial banks established as joint venture. After implementation of the open market policy, joint venture commercial banks are opened as private banks. In competitive financial market performance of joint venture banks are very good. The main objective of the study was to study the comparative analysis of the investment policy of joint venture banks, i.e. Nabil bank in comparison to Standard Chartered Bank Nepal limited and Himalayan Bank Limited.

In the study, the word investment conceptualized spending or setting aside money for future financial gain. Investment might include the purchase of financial assets such as stocks, bonds, mutual fund or life insurance. The term

investment covers a wide range of activities. It is only possible when there is adequate savings. Investment promotes economic growth to the nation's wealth. People deposit money in the bank. The bank may invest them in various business companies. As a result of which investment raises a nation's standard living.

In viewpoint of shareholders, investment is very important factor. For this commercial banks have to pay due considerations while formulating investment policy. A healthy development of any commercial banks depends upon its investment policy. A good investment policy attracts both borrowers and lenders, which helps to increase the volume and quality of deposits, loan and investment. The major source of income of a bank is interest income from investments & loans and fee based income. As loan and advance dominates the assets side of the balance sheet of any bank. Similarly, earnings from such loan and advances occupy a major space in income statement of the bank.

The first chapter focuses the introduction of the study. It attempts a little bit to introduce the investment policy of these banks. It has also attempted to set the objectives and significance of the study. Finally it presents the study of the organization.

The second chapter deals with review of literature, which includes the conceptual framework different view of different writers, books, journals and articles. Review of literature section has attempted to review the studied done so far on the same topic of different organizations.

Research methodology is studied in the third chapter; it has included the research design. It presents sources of data, data collection and processing techniques and financial and statistical tools used. Financial ratios like current ratio, assets management ratio, profitability ratio, risk ratio and growth ratio have been used. Karl Pearson's coefficient of correlation, trend analysis and hypothesis test have been used to analyze.

Presentation and analysis of data are studied in the fourth chapter. On the basis of variable level of current assets, current liabilities loan & advances and investment in various sectors is analyzed. The major ratio analysis consists of

the composition of investment policy liquidity position, assets management position, profitability position and risk position. Under these, mean ratios and their trend position are studied. In order to test the correlation coefficient 'r' and regression analysis is calculated and analyzed. Some null and alternative hypothesis tests are calculated and analyzed. Major findings from data analysis are also studied in this fourth chapter. The data which were employed in this research are secondary in nature. They are obtained from annual reports of the concerned banks. Likewise, the financial statements of five fiscal years (from 2003/04 to 2007/08) were selected for the purpose evaluation. The following conclusions are drawn from the findings of the study.

- The liquidity position of NABIL is comparatively better than SCBNL and HBL. NABIL has the highest current ratio and loan & advances to current assets ratio. In spite of cash and bank balance being the lowest among three banks, it has maintained moderate investment policy on investment on government securities.
- The assets management of NABIL is good enough as compared to that of SCBNL and HBL. It has the highest loan and advances, investment on shares and debentures of other companies. The total investment, investment on government securities, loan and advance to total working fund, total OBS operation to loan and advances and loan loss of NABIL is in lowest proportion of loan loss ratio as compared to other two banks. SCBNL seems to be stronger in invest in government securities, invest in total deposit and OBS to loan and advance. HBL seems moderate position in assets management.
- From analysis of profitability ratio, it can be concluded that NABIL is comparatively average or in between successful in comparison to other banks. The return on total working fund, interest earned to total working fund and total outside assets ratio is the highest in NABIL among three banks. This shows the highest importance of lending business in NABIL. NABIL has maintained moderate investment policy in all other ratios. SCBNL has the highest return on loan & advances, interest, total working fund and equity capital. HBL seems to be better in operating income and interest payment point of view.

- The degree of credit risk is highest in NABIL. It has lower position in liquidity and capital risk
- The trend of total deposit of NABIL shows the higher position and loan and advances is in also higher position and investment and net profit of NABIL shows lower position in compared to other two banks.

5.2 Recommendations

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

- There are various factors, which can affect to the liquidity position of the bank. Among the various factors, the liquidity position is affected by internal factors as well as external factors. So that the bank should give more concentrate on internal and external factors. From the analysis, it reveals that NABIL has recorded the ratio of cash and bank balance to total deposit and current asset are considerably lower than other two banks. NABIL is recommended to increase its cash and bank balance to meet current obligations and loan demand. The bank should give more focus on collecting deposit by giving more facilities and different schemes such as gift cheque scheme, house building deposit scheme, monthly interest scheme, direct finance housing scheme, cumulative deposit scheme and life insurance scheme.
- From the above findings, it reveals that investment on government securities to current assets and total working fund ratio of NABIL is comparatively lower than SCBNL. These are free of risk and highly in nature. Government securities (i.e. treasury bills, development bonds, saving certificate and government debenture) are semi liquid assets and it can be sold easily in market because these are free of risk. So, NABIL is recommended to invest more of its funds in government securities in relevant manner instead of keeping them idle. It should keep in mind this proverb, "Something is better than nothing".
- The loan and advances to total deposit and total working fund of NABIL is better than other two banks. However, it should try to maintain the consistency of loan and advances to total deposit ratio since it is

moderate consistency than that of SCBNL and HBL. It is good to invest more on share and debentures as it encourages financial and economic development of the country. A commercial bank must mobilize its funds in different sector such as to purchase shares and debentures of other companies out of total working fund. If other sector goes up positively then banks can utilize its fund more and more by providing them loan and advances or getting sufficient dividend on their share or interest on debentures.

- The recovery of loan is the most challenging job to a bank. From the above findings, the credit risk taken by NABIL is higher than other two banks. NABIL is in better position in loan and advances than other two banks but it is failure to get sufficient return. So, it is strongly recommended that NABIL should take strong steps to recover, which in turn can show high growth in profitability. The large amount of loan is blocked as non performing assets. Therefore, there is an urgent need to workout a suitable mechanism through which the overdue loan can be realized with time for this purpose special act named " loan recovery Act " should be enacted. Loan default in commercial bank is a result of various factors i.e. political influence, lack of skilled manpower, irregular supervision, lack of entrepreneurship attitude. NABIL is recommended to formulate a sound collection policy including procedures which ensures paid identification of delinquent loan, immediate contact with borrower and continual follow up until a loan is recovered.
- The condition of portfolio of NABIL should be carefully examined time to time. It should always try to maintain the equilibrium in the portfolio condition of bank. Portfolio management of bank assets basically means allocation of fund in different components having different degree of risks and varying rate of return so as to maintain a proper degree of balance between risk and return.
- Profit is very important for survival of stability of any organization. As a joint venture private bank, NABIL can not keep its eyes off from the profit motive. It should be always careful in increasing profit in the real sense to maintain the confidence of shareholders, depositors and

customers. The return on loan and advances and return on equity is lower than SCBNL. This may be due to the focus of NABIL on low return areas with higher degree of risk. It should look for productive areas of investment with higher return and lower risk. So that, it can earn a sufficient return enough for its survival, stability and long term sustainability.

- In the competitive environment in the banking sector, the business should be customer oriented. It should strengthen and active its marketing function, as it is an effective tool to attract and retain the customers. The bank should make survey in the market before formulating new strategies and programs. It should try to know the customer needs and demands. Then only bank should develop an innovative approach to marketing and formulate new strategies and programs of serving customers in a more convenient and satisfactory way by optimally utilizing the modern technology and offering new facilities to the customers at competitive prices.
- The study reveals that NABIL has not adopted any cost management strategy to have control over its cost of funding. Higher interest paid to total working fund, Loan loss ratio, high administrative costs are some of the reasons behind less profitability of the bank. So, NABIL should try to adopt cost management strategy by applying standard costing, value analysis and value added statement and sound capital structure.

Direction for Future Research

This area of research is particular interest of the investment policy of the joint venture banks. The researcher has used four financial ratios for the analysis of data i.e. assets management ratio, profitability ratio, risk ratio and liquidity ratio. Among these four financial ratios, profitability ratio seems to be very fruitful for analyzing the data. So, the future researcher can use the profitability ratio for analyzing data. The researcher has not mentioned the invested area by the joint venture banks. So, the future researcher can focus the invested area by the joint venture banks. In this final section, the researcher has highlighted some issues that may serve as fruitful avenues for future inquiry.

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Appendix A -1
Current Ratio

(Rs. in million)

F/Y	NABIL			SCBNL			HBL		
	C. A	C. L	C. R	C. A	C. L	C. R	C. A	C. L	C. R
2003/04	16385.38	15153.13	1.08	23494.63	22086.21	1.06	24428.12	23390.87	1.04
2004/05	16387.24	15420.8	1.06	21808.84	20250.5	1.08	27058.97	26302.95	1.03
2005/06	21906.69	20352.55	1.08	25432.56	23952.7	1.06	10849.1	25876.41	0.42
2006/07	26679.55	25095.29	1.06	28644.31	26420.1	1.08	11749.56	27694.2	0.42
2007/08	36211.48	34600.66	1.05	33128.36	30781.4	1.08	155411.2	33662.54	1.05
Mean			1.072			1.066			0.762
STD.			0.0098			0.012			0.2846
C.V.			0.91			1.13			37.35

Appendix A -2
Cash and Bank Balance to Total Deposit Ratio

(Rs. in million)

F/Y	NABIL			SCBNL			HBL		
	C.A.B.B	T. D	RATIO	C.A.B.B	T. D	RATIO	C.A.B.B	T. D	RATIO
2003/04	970.49	14119.03	6.87	2023.16	21161.46	9.56	2001.19	22010.34	9.09
2004/05	559.38	14586.61	3.83	1111.12	19335.1	5.75	2014.47	24814.01	8.12
2005/06	630.24	19347.4	3.26	1276.24	23061.03	5.53	1717.35	26490.85	6.48
2006/07	1399.83	23342.29	6.00	2021.02	24647.02	8.20	1757.34	30048.42	5.85
2007/08	2671.14	31915.05	8.37	2050.24	29744	6.89	1448.14	31842.79	4.55
Mean			5.666			7.186			6.804
STD.			1.8991			1.5201			1.5961
C.V.			33.52			21.16			23.46

Appendix A -3
Cash and Bank Balance to Current Assets Ratio

(Rs. in million)

F/Y	NABIL			SCBNL			HBL		
	C.A.B.B	C. A	RATIO	C.A.B.B	C. A	RATIO	C.A.B.B	C. A	RATIO
2003/04	970.49	16385.38	5.92	2023.16	23494.63	8.61	2001.19	24428.12	8.19
2004/05	559.38	16387.24	3.41	1111.12	21808.84	5.10	2014.47	27058.97	7.44
2005/06	630.24	21906.69	2.88	1276.24	25432.56	5.02	1717.35	10849.1	15.83
2006/07	1399.83	26679.55	5.25	2021.02	28644.31	7.06	1757.34	11749.56	14.97
2007/08	2671.14	36211.48	7.38	2050.24	33128.36	6.10	1448.14	155411.2	0.93
Mean			4.968			6.394			9.47
STD.			1.6487			1.3405			5.4641
C.V.			33.19			20.96			57.7

Appendix A - 4

Investment on Govt. Securities to Current Assets Ratio

(Rs. in million)

F/Y	NABIL			SCBNL			HBL		
	I.O.G.S	C. A	RATIO	I.O.G.S	C. A	RATIO	I.O.G.S	C. A	RATIO
2003/04	3672.63	16385.38	22.41	7948.22	23494.63	33.83	3431.73	24428.12	14.04
2004/05	2413.94	16387.24	14.73	7203.07	21808.84	33.03	5469.73	27058.97	20.21
2005/06	2301.46	21906.69	10.51	8635.88	25432.56	33.96	5144.32	10849.1	47.42
2006/07	4808.46	26679.55	18.02	7107.94	28644.31	24.81	6454.88	11749.56	54.94
2007/08	4646.88	36211.48	12.83	8137.62	33128.36	24.56	7471.67	155411.2	4.81
Mean			15.7			30.038			28.282
STD.			4.1598			4.3830			19.4661
C.V.			26.5			14.59			68.83

Appendix A - 5

Loan and Advances to Current Assets Ratio

(Rs. in million)

F/Y	NABIL			SCBNL			HBL		
	L & A	C. A	RATIO	L & A	C. A	RATIO	L & A	C. A	RATIO
2003/04	8189.99	16385.38	49.98	6410.24	23494.63	27.28	11951.87	24428.12	48.93
2004/05	10586.17	16387.24	64.60	8143.21	21808.84	37.34	12424.52	27058.97	45.92
2005/06	12922.54	21906.69	58.99	8935.42	25432.56	35.13	14642.56	10849.1	134.97
2006/07	15545.78	26679.55	58.27	10502.64	28644.31	36.67	16998	11749.56	144.67
2007/08	21365.05	36211.48	59.00	13718.6	33128.36	41.41	19497.52	155411.2	12.55
Mean			58.168			35.566			77.408
STD.			4.6860			4.6339			52.6244
C.V.			8.06			13.03			67.98

Appendix B - 1

Loan and Advances to Total Deposit Ratio

(Rs. in million)

F/Y	NABIL			SCBNL			HBL		
	L & A	T. D	RATIO	L & A	T. D	RATIO	L & A	T. D	RATIO
2003/04	8189.99	14119.03	58.01	6410.24	21161.46	30.29	11951.87	22010.34	54.30
2004/05	10586.17	14586.61	72.57	8143.21	19335.1	42.12	12424.52	24814.01	50.07
2005/06	12922.54	19347.4	66.79	8935.42	23061.03	38.75	14642.56	26490.85	55.27
2006/07	15545.78	23342.29	66.60	10502.64	24647.02	42.61	16998	30048.42	56.57
2007/08	21365.05	31915.05	66.94	13718.6	29744	46.12	19497.52	31842.79	61.23
Mean			66.182			39.976			55.488
STD.			4.6628			5.3770			3.6043
C.V.			7.05			13.45			6.5

Appendix B - 2

Total Investment to Total Deposit Ratio

(Rs. in million)

F/Y	NABIL			SCBNL			HBL		
	T. INV	T. D	RATIO	T. INV	T. D	RATIO	T. INV	T. D	RATIO
2003/04	5835.95	14119.03	0.4133	11360.33	21161.46	0.5368	9292.1	22010.34	0.4222
2004/05	4267.23	14586.61	0.2925	9702.55	19335.1	0.5018	11692.34	24814.01	0.4712
2005/06	6178.53	19347.4	0.3193	12838.56	23061.03	0.5567	10889.03	26490.85	0.4110
2006/07	8945.31	23342.29	0.3832	13553.23	24647.02	0.5499	11822.98	30048.42	0.3935
2007/08	9939.77	31915.05	0.3114	13902.32	29744	0.4674	13340.18	31842.79	0.4189
Mean			34.394			52.252			42.336
STD.			4.6183			3.3435			2.5901
C.V.			13.43			6.4			6.12

Appendix B - 3

Loan and Advances to Total Working Fund

(Rs. in million)

F/Y	NABIL			SCBNL			HBL		
	L & A	T. W. F	RATIO	L & A	T. W. F	RATIO	L & A	T. W. F	RATIO
2003/04	8189.99	16745.61	48.91	6410.24	23642.06	27.11	11951.87	24762.02	48.27
2004/05	10586.17	17186.33	61.60	8143.21	21893.58	37.19	12424.52	27418.16	45.31
2005/06	12922.54	22329.97	57.87	8935.42	25767.35	34.68	14642.56	29460.39	49.70
2006/07	15545.78	27253.39	57.04	10502.64	28596.67	36.73	16998	33519.14	50.71
2007/08	21365.05	37132.76	57.54	13718.6	33335.79	41.15	19497.52	36175.53	53.90
Mean			56.592			35.372			49.578
STD.			4.1672			4.6319			2.8250
C.V.			7.36			13.09			5.7

Appendix B - 4

Investment on Govt. Securities to Total Working Fund Ratio

(Rs. in million)

F/Y	NABIL			SCBNL			HBL		
	I.O.G.S	T. W. F	RATIO	I.O.G.S	T. W. F	RATIO	I.O.G.S	T. W. F	RATIO
2003/04	3672.63	16745.61	0.2193	7948.22	23642.06	0.3362	3431.73	24762.02	0.1386
2004/05	2413.94	17186.33	0.1405	7203.07	21893.58	0.3290	5469.73	27418.16	0.1995
2005/06	2301.46	22329.97	0.1031	8635.88	25767.35	0.3351	5144.32	29460.39	0.1746
2006/07	4808.46	27253.39	0.1764	7107.94	28596.67	0.2486	6454.88	33519.14	0.1926
2007/08	4646.88	37132.76	0.1251	8137.62	33335.79	0.2441	7471.67	36175.53	0.2065
Mean			15.288			29.86			18.236
STD.			4.0909			4.2756			2.4317
C.V.			26.76			14.32			13.33

Appendix B - 5

Investment on Share and Debenture to Total Working Fund

(Rs. in million)

F/Y	NABIL			SCBNL			HBL		
	I.O.S.D	T. W. F	RATIO	I.O.S.D	T. W. F	RATIO	I.O.S.D	T. W. F	RATIO
2003/04	22.22	16745.61	0.0013	11.19	23642.06	0.0005	10.69	24762.02	0.0004
2004/05	27.36	17186.33	0.0016	13.34	21893.58	0.0006	34.27	27418.16	0.0012
2005/06	27.56	22329.97	0.0012	15.34	25767.35	0.0001	38.57	29460.39	0.0013
2006/07	57.85	27253.39	0.0021	44.94	28596.67	0.0015	73.42	33519.14	0.0022
2007/08	80.55	37132.76	0.0022	106.04	33335.79	0.0032	89.56	36175.53	0.0025
Mean			0.168			0.13			0.152
STD.			0.0407			0.1032			0.0752
C.V.			24.22			79.35			49.48

Appendix B - 6

Total OBS Operation to Loan and Advances Ratio

(Rs. in million)

F/Y	NABIL			SCBNL			HBL		
	T. O. O	L & A	RATIO	T. O. O	L & A	RATIO	T. O. O	L & A	RATIO
2003/04	5297.74	8189.99	64.69	4331.66	6410.24	67.57	6229.9	11951.87	52.12
2004/05	4691.54	10586.17	44.32	4077.47	8143.21	50.07	7718.75	12424.52	62.13
2005/06	5498.94	12922.54	42.55	5154.83	8935.42	57.69	6579.12	14642.56	44.93
2006/07	5695.33	15545.78	36.64	6854.12	10502.64	65.26	6853.64	16998	40.32
2007/08	7791.49	21365.05	36.47	6139.78	13718.6	44.76	10871.94	19497.52	55.76
Mean			44.934			57.07			51.052
STD.			10.3614			8.6977			7.7289
C.V.			23.06			15.24			15.14

Appendix B - 7

Loan Loss Provision Ratio

(Rs. in million)

F/Y	NABIL			SCBNL			HBL		
	L. L. P	L & A	RATIO	L. L. P	L & A	RATIO	L. L. P	L & A	RATIO
2003/04	358.66	8189.99	4.3792483	283.62	6410.24	4.4244833	967.76	11951.87	8.097143
2004/05	360.57	10586.17	3.4060477	277.66	8143.21	3.4097119	1026.64	12424.52	8.2630154
2005/06	356.24	12922.54	2.7567336	270.86	8935.42	3.0313069	1119.42	14642.56	7.6449746
2006/07	357.27	15545.78	2.29818	287.51	10502.64	2.7375022	795.73	16998	4.6813154
2007/08	394.41	21365.05	1.8460523	245.39	13718.6	1.7887394	682.09	19497.52	3.4983424
Mean			2.838			3.958			6.436
STD.			0.9783			1.2522			1.9621
C.V.			1.1257			0.75			2.4

Appendix C - 1

Return on Loan and Advances

(Rs. in million)

F/Y	NABIL			SCBNL			HBL		
	N. P	L & A	RATIO	N. P	L & A	RATIO	N. P	L & A	RATIO
2003/04	455.32	8189.99	5.56	537.8	6410.24	8.39	263.05	11951.87	2.20
2004/05	518.64	10586.17	4.90	539.2	8143.21	6.62	308.28	12424.52	2.48
2005/06	635.26	12922.54	4.92	658.76	8935.42	7.37	457.46	14642.56	3.12
2006/07	674	15545.78	4.34	691.67	10502.64	6.59	491.82	16998	2.89
2007/08	746.47	21365.05	3.49	818.92	13718.6	5.97	308.28	19497.52	1.58
Mean			4.642			6.988			2.454
STD.			0.6935			0.8297			0.5409
C.V.			14.94			11.87			22.04

Appendix C - 2

Return on Total Working Fund

(Rs. in million)

F/Y	NABIL			SCBNL			HBL		
	N. P	T. W. F	RATIO	N. P	T. W. F	RATIO	N. P	T. W. F	RATIO
2003/04	455.32	16745.61	2.72	537.8	23642.06	2.27	263.05	24762.02	1.06
2004/05	518.64	17186.33	3.02	539.2	21893.58	2.46	308.28	27418.16	1.12
2005/06	635.26	22329.97	2.84	658.76	25767.35	2.56	457.46	29460.39	1.55
2006/07	674	27253.39	2.47	691.67	28596.67	2.42	491.82	33519.14	1.47
2007/08	746.47	37132.76	2.01	818.92	33335.79	2.46	308.28	36175.53	0.85
Mean			2.612			2.434			1.21
STD.			0.3501			0.0941			0.2621
C.V.			13.4			3.87			21.66

Appendix C - 3

Return on Equity Capital Ratio

(Rs. in million)

F/Y	NABIL			SCBNL			HBL		
	N. P	E. CAP	RATIO	N. P	E. CAP	RATIO	N. P	E. CAP	RATIO
2003/04	455.32	491.65	92.61	537.8	339.55	158.39	263.05	300	87.68
2004/05	518.64	491.65	105.49	539.2	339.55	158.79	308.28	390	79.05
2005/06	635.26	491.65	129.21	658.76	339.55	194.01	457.46	772.2	59.24
2006/07	674	491.65	137.09	691.67	413.25	167.37	491.82	810.81	60.66
2007/08	746.47	689.22	108.31	818.92	620.78	131.92	308.28	1013.51	30.42
Mean			114.542			162.098			63.41
STD.			16.2809			19.9073			19.7329
C.V.			14.21			12.28			31.12

Appendix C - 4

Total Interest Earned to Total Working Fund Ratio

(Rs. in million)

F/Y	NABIL			SCBNL			HBL		
	T. I. E	T. W. F	RATIO	T. I. E	T. W. F	RATIO	T. I. E	T. W. F	RATIO
2003/04	1001.62	16745.61	5.98	1042.18	23642.06	4.41	1245.89	24762.02	5.03
2004/05	1068.75	17186.33	6.22	1058.68	21893.58	4.84	1446.47	27418.16	5.28
2005/06	1310	22329.97	5.87	1189.6	25767.35	4.62	1626.47	29460.39	5.52
2006/07	1587.76	27253.39	5.83	1411.98	28596.67	4.94	1775.58	33519.14	5.28
2007/08	1978.7	37132.76	5.33	1591.2	33335.79	4.77	1963.65	36175.53	5.43
Mean			5.846			4.716			5.312
STD.			0.2915			0.1851			0.1661
C.V.			4.99			3.93			3.13

Appendix C - 5

Total Interest Earned to Total Outside Assets Ratio

(Rs. in million)

F/Y	NABIL			SCBNL			HBL		
	T. I. E	T. O. A	RATIO	T. I. E	T. O. A	RATIO	T. I. E	T. O. A	RATIO
2003/04	1001.62	14025.94	7.14	1042.18	17770.57	5.86	1245.89	21243.97	5.86
2004/05	1068.75	14853.4	7.20	1058.68	17845.76	5.93	1446.47	24116.86	5.10
2005/06	1310	14861.7	8.81	1189.6	21773.98	5.46	1626.47	25531.59	6.37
2006/07	1587.76	19101.07	8.31	1411.98	24055.87	5.87	1775.58	28820.98	6.16
2007/08	1978.7	24491.09	8.08	1591.2	27621.42	5.76	1963.65	32837.7	5.98
Mean			7.908			5.776			6.074
STD.			0.6474			0.1672			0.1761
C.V.			8.19			2.89			2.9

Appendix C - 6

Total Interest Earned to Total Operating Income Ratio

(Rs. in million)

F/Y	NABIL			SCBNL			HBL		
	T. I. E	T. O. I	RATIO	T. I. E	T. O. I	RATIO	T. I. E	T. O. I	RATIO
2003/04	1001.62	1333.65	75.10	1042.18	1578.35	66.03	1245.89	1516.32	82.17
2004/05	1068.75	1438.44	74.30	1058.68	1573.11	67.30	1446.47	1757.89	82.28
2005/06	1310	1359.51	96.36	1189.6	1418.25	83.88	1626.47	1393.53	116.72
2006/07	1587.76	1480.16	107.27	1411.98	1558.01	90.63	1775.58	1393.36	127.43
2007/08	1978.7	1670.43	118.45	1591.2	1774.15	89.69	1963.65	1597.5	122.92
Mean			94.296			92.84			113.411
STD.			17.4603			6.2868			11.4683
C.V.			18.52			6.77			10.11

Appendix C - 7

Total Interest Paid to Total Working Fund Ratio

(Rs. in million)

F/Y	NABIL			SCBNL			HBL		
	T. I. P	T. W. F	RATIO	T. I. P	T. W. F	RATIO	T. I. P	T. W. F	RATIO
2003/04	282.94	16745.61	1.69	272.24	23642.06	1.15	491.54	24762.02	1.99
2004/05	243.54	17186.33	1.42	254.13	21893.58	1.16	561.96	27418.16	2.05
2005/06	357.16	22329.97	1.60	303.2	25767.35	1.18	648.81	29460.39	2.20
2006/07	555.71	27253.39	2.04	413.06	28596.67	1.44	767.41	33519.14	2.29
2007/08	758.44	37132.76	2.04	471.73	33335.79	1.41	823.74	36175.53	2.28
Mean			1.758			1.27			0.1216
STD.			0.2461			0.1311			0.1216
C.V.			14			10.33			5.62

Appendix D - 1

Liquidity Risk Ratio

(Rs. in million)

F/Y	NABIL			SCBNL			HBL		
	C.A.B.B	T. D	RATIO	C.A.B.B	T. D	RATIO	C.A.B.B	T. D	RATIO
2003/04	970.49	14119.03	6.87	2023.16	21161.46	9.56	2001.19	22010.34	9.09
2004/05	559.38	14586.61	3.83	1111.12	19335.1	5.75	2014.47	24814.01	8.12
2005/06	630.24	19347.4	3.26	1276.24	23061.03	5.53	1717.35	26490.85	6.48
2006/07	1399.83	23342.29	6.00	2021.02	24647.02	8.20	1757.34	30048.42	5.85
2007/08	2671.14	31915.05	8.37	2050.24	29744	6.89	1448.14	31842.79	4.55
Mean			5.666			7.186			6.804
STD.			1.8991			1.5203			1.5961
C.V.			33.52			21.16			23.46

Appendix D - 2

Credit Risk Ratio

(Rs. in million)

F/Y	NABIL			SCBNL			HBL		
	L & A	T. A	RATIO	L & A	T. A	RATIO	L & A	T. A	RATIO
2003/04	8189.99	16745.61	48.91	6410.24	23642.06	27.11	11951.87	24762.02	48.27
2004/05	10586.17	17186.33	61.60	8143.21	21893.58	37.19	12424.52	27418.16	45.31
2005/06	12922.54	22329.97	57.87	8935.42	25767.35	34.68	14642.56	29460.39	49.70
2006/07	15545.78	27253.39	57.04	10502.64	28596.67	36.73	16998	33519.14	50.71
2007/08	21365.05	37132.76	57.54	13718.6	33335.79	41.15	19497.52	36175.53	53.896985
Mean			56.592			35.372			49.578
STD.			4.1672			4.6319			2.8250
C.V.			7.36			13.09			5.7

Appendix D - 3

Capital Risk Ratio

(Rs. in million)

F/Y	NABIL			SCBNL			HBL		
	CAPITAL	T. R. W.A	RATIO	CAPITAL	T. R. W.A	RATIO	CAPITAL	T. R. W.A	RATIO
2003/04	1481.68	11872.01	12.48	1495.74	10023.09	14.92	1324.17	16860.64	7.85
2004/05	1657.63	14193.07	11.68	1582.42	10497.53	15.07	1541.75	18321.72	8.41
2005/06	1874.99	28187.28	6.65	1754.14	12369.49	14.18	1766.18	19918.33	8.87
2006/07	2057.05	333315.9	0.62	2116.35	31489.93	6.72	2146.5	21889.71	9.81
2007/08	2437.2	45345.36	5.37	2492.54	36019.58	6.92	2512.99	25624.47	9.81
Mean			7.35			11.562			8.95
STD.			4.3553			3.8841			0.7729
C.V.			59.26			33.59			8.64

Appendix E - 1

Growth Ratio of Total Deposit

(Rs. in million)

F/Y	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	G. R (%)
NABIL	14115.03	14586.61	19347.4	23342.29	31915.05	22.62%
SCBNL	21161.46	19335.1	23061.03	24647.02	29744	8.88%
HBL	22010.34	24814.01	26490.85	30048.42	31842.79	9.67%

Sample calculation of growth rate of total deposit of NABIL

Here,

D_n = Total deposit in the nth year

D_o = Total deposit in the initial year

g = Growth rate

n = Number of year i.e. =5

According to the formula,

$D_n = D_o (1+g)^{n-1}$ or, $D_{2007/08} = D_{2003/04} (1+g)^{5-1}$ or, $31915.05 = 14115.03 (1+g)^4$

Or, $(1+g)^4 = 31915.05/14115.03$ or, $1+g = (2.2611)^{1/4}$ or, $1+g = 1.2263$

Or, g = 1.2263 - 1 or, g = 0.2263

i.e. g = 22.63%

Sample calculation of growth rate of total deposit of SCBNL

Here,

D_n = Total deposit in the nth year

D_o = Total deposit in the initial year

g = Growth rate

n = Number of year i.e. =5

According to the formula,

$D_n = D_o (1+g)^{n-1}$ or, $D_{2007/08} = D_{2003/04} (1+g)^{5-1}$ or, $29744 = 21161.46 (1+g)^4$

Or, $(1+g)^4 = 29744/21161.46$ or, $1+g = (1.4056)^{1/4}$ or, $1+g = 1.0888$

Or, g = 1.0888 - 1 or, g = 0.0888

i.e g = 8.89 %

Sample calculation of growth rate of total deposit of HBL

Here,

D_n = Total deposit in the nth year

D_o = Total deposit in the initial year

g = Growth rate

n = Number of year i.e. =5

According to the formula,

$D_n = D_o (1+g)^{n-1}$ or, $D_{2007/08} = D_{2003/04} (1+g)^{5-1}$ or, $31842.79 = 22010.34 (1+g)^4$

Or, $(1+g)^4 = 31842.79/22010.34$ or, $1+g = (1.4467)^{1/4}$ or, $1+g = 1.0967$

Or, g = 1.0967 - 1 or, g = 0.0967

i.e. g = 9.67 %

Growth rate of other banks are calculated and fed in the corresponding tables according to the above formula.

Appendix E - 2

Growth Ratio of Loan and Advances

(Rs. in million)

F/Y	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	G. R (%)
NABIL	8189.99	10586.17	12922.54	15545.78	21365.05	27.09
SCBNL	6410.24	8143.21	8935.42	10502.64	13718.6	20.93
HBL	11951.87	12424.52	14642.56	16998	19497.52	13.01

Appendix E - 3

Growth Ratio of Total Investment

(Rs. in million)

F/Y	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	G. R (%)
NABIL	5835.95	4267.23	6178.53	8945.31	9939.77	14.24
SCBNL	11360.33	9702.55	12838.56	13553.23	13902.32	5.18
HBL	9292.1	11692.34	10889.03	11822.98	13340.18	43.56

Appendix E - 4

Growth Ratio of Net Profit

(Rs. in million

F/Y	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	G. R (%)
NABIL	455.32	518.64	635.26	674	746.47	13.53
SCBNL	537.8	539.2	658.76	691.67	818.92	11.08
HBL	263.05	308.28	457.46	491.82	635.87	78.21

Appendix F -1

Correlation between Total Deposit and Loan & Advances of NABIL

(Rs. in million)

F/Y	T. D (X)	L & A (Y)	x=X- $\bar{x}$	x^2	y =Y - $\bar{y}$	y^2	x y
2003/04	14119.03	8189.99	-6543.05	42811503.3	-5531.92	30602138.9	36195629.16
2004/05	14586.61	10586.17	-6075.47	36911335.72	-3135.74	9832865.35	19051094.3
2005/06	19347.4	12922.54	-1314.68	1728383.502	-799.37	638992.397	1050915.752
2006/07	23342.29	15545.78	2680.21	7183525.644	1823.87	3326501.78	4888354.613
2007/08	31915.05	21365.05	11252.97	126629333.8	7643.14	58417589.1	86008025.13
SUM	x = 103310.4	y= 68609.53		x^2 X 215264082		y2= 102818087	xy= 147194037.9

Here, N=5

$\bar{x} = \frac{x}{N}$ X$\frac{103310.4}{5}$ = 20662.08 $\bar{y} = \frac{y}{N}$ X$\frac{68609.53}{5}$ = 13721.91

Calculation of Correlation Coefficient (r):

$r = \frac{xy}{\sqrt{x^2}\sqrt{y^2}}$ = $\frac{Z855384.86}{\sqrt{215264082}\sqrt{102818087}}$ = .9894

r^2 = .9789

Calculation of Probable Error (P. Er.):

P. Er. = 0.6745 $\frac{1Zr^2}{\sqrt{N}}$ = 0.6745 $\frac{1Z0.9789}{\sqrt{5}}$ = 0.0064

6P. Er. = .6365

Correlation between Deposit and Loan and Advances

Banks	**Evaluation Criteria**			
	r	r^2	P.Er.	6P.Er.
NABIL	.9894	.9789	0.0064	.6365
SCBNL	.9241	.8540	.0440	.2642
HBL	.9734	.9476	.0158	.0949

Appendix F - 2

Correlation between Total Deposit and Loan & Advances of SCBNL

(Rs. in million)

F/Y	T. D (X)	L & A (Y)	x = X- $\bar{x}$	x^2	y=Y- $\bar{y}$	y^2	x y
2003/04	21161.46	6410.24	-2428.26	5896446.63	-3131.78	9808046	7604776.103
2004/05	19335.1	8143.21	-4254.62	18101791.3	-1398.81	1956669	5951405.002
2005/06	23061.03	8935.42	-528.69	279513.116	-606.6	367963.6	320703.354
2006/07	24647.02	10502.64	1057.3	1117883.29	960.62	922790.8	1015663.526
2007/08	29744	13718.6	6154.28	37875162.3	4176.58	17443820	25703842.76
SUM	x = 117948.6	y = 47710.11		x^2 X 63270796.7		y2 = 30499290	xy = 40596390.75

Here,

r = .9241 r^2 = .8540 P. Er. = .0440 6P. Er. = .2642

Appendix F - 3

Correlation between Total Deposit and Loan & Advances of HBL

(Rs. in million)

F/Y	T. D (X)	L & A (Y)	x= X- $\bar{x}$	x^2	y= Y - $\bar{y}$	y^2	x y
2003/04	22010.34	11951.87	-5030.94	25310357.28	-3151.02	9928927.04	15852592.56
2004/05	24814.01	12424.52	-2227.27	4960731.653	-2678.37	7173665.857	5965453.15
2005/06	26490.85	14642.56	-550.43	302973.1849	-460.33	211903.7089	253379.4419
2006/07	30048.42	16998	3007.14	9042890.98	1895.11	3591441.912	5698861.085
2007/08	31842.79	19497.52	4801.51	23054498.28	4394.63	19312772.84	21100859.89
SUM	x= 135206.4	y= 75514.47		x 2= 62671451.38		y= 40218711.36	xy= 48871146.13

Here,

r = 0.9734 r^2 = 0.9476 P. Er. = 0.0158 6P. Er. = 0.0949

Appendix F - 4

Correlation between Total Deposit and Total Investment of NABIL

(Rs. in million)

F/Y	T. D (X)	T. I (Y)	x= X- $\bar{x}$	x^2	y= Y - $\bar{y}$	y^2	x y
2003/04	14119.03	5835.95	-6543.05	42811503.3	-62773.58	3940522346	410730672.6
2004/05	14586.61	4267.23	-6075.47	36911335.72	-64342.3	4139931569	390909713.4
2005/06	19347.4	6178.53	-1314.68	1728383.502	-62431	3897629761	82076787.08
2006/07	23342.29	8945.31	2680.21	7183525.644	-59664.22	3559819148	-159912639.1
2007/08	31915.05	9939.77	11252.97	126629333.8	-58669.76	3442140738	-660209049.2
SUM	x= 20662.08	y= 13721.91		x 2= 21594387.05		y 2= 245602411	xy= 63595484.81

Here,

r = 0.0315 r^2 =0.0009 P. Er. =0.3013 6P. Er. =1.8081

Appendix F - 5

Correlation between Total Deposit and Total Investment of SCBNL

(Rs. in million)

F/Y	T. D (X)	T. I (Y)	x= X- $\bar{x}$	x^2	y=Y- $\bar{y}$	y^2	x y
2003/04	21161.46	11360.33	-2428.26	5896447	-911.07	830048.5	2212315
2004/05	19335.1	9702.55	-4254.62	18101791	-2568.85	6598990	10929481
2005/06	23061.03	12838.56	-528.69	279513.1	567.16	321670.5	-299852
2006/07	24647.02	13553.23	1057.3	1117883	1281.83	1643088	1355279
2007/08	29744	13902.32	6154.28	37875162	1630.92	2659900	10037138
SUM	x= 23589.72	y= 9542.02		x 2= 63270796.7		y 2= 12053698	xy= 24234388

Here,

r = 0.8745 r^2 =0.7701 P. Er. =0.694 6P. Er. =0.4163

Appendix F - 6

Correlation between Total Deposit and Total Investment of HBL

(Rs. in million)

F/Y	T. D (X)	T. I (Y)	x= X- $\bar{x}$	x^2	y=Y- $\bar{y}$	y^2	x y
2003/04	22010.34	9292.1	-5030.94	25310357.28	-2115.23	4474198	10641595
2004/05	24814.01	11692.34	-2227.27	4960731.653	285.01	81230.7	-634794
2005/06	26490.85	10889.03	-550.43	302973.1849	-518.3	268634.9	285287.9
2006/07	30048.42	11822.98	3007.14	9042890.98	415.65	172764.9	1249918
2007/08	31842.79	13340.18	4801.51	23054498.28	1932.85	3735909	9280599
SUM	x = 27041.28	y= 11407.33		x 2= 62671451.38		y 2= 8732737.59	xy = 20822605

Here,

r = 0.8901 r^2 = 0.7922 P. Er. =0.0627 6P. Er. =0.3760

Correlation between Total Deposit and Total Investment

Banks	**Evaluation Criteria**			
	r	r^2	P.Er.	6P.Er.
NABIL	0.0315	0.0009	0.3013	1.8081
SCBNL	0.8745	0.7701	0.694	0.4163
HBL	0.8901	0.7922	0.0627	0.3760

Appendix F - 7

Correlation between Total Deposit and Net Profit Of NABIL

(Rs. in million)

F/Y	T. D (X)	N. P (Y)	x= X- $\bar{x}$	x^2	y=Y- $\bar{y}$	y^2	x y
2003/04	14119.03	455.32	-6543.05	42811503.3	-150.62	22686.38	985514.2
2004/05	14586.61	518.64	-6075.47	36911335.7	-87.3	7621.29	530388.5
2005/06	19347.4	635.26	-1314.68	1728383.5	29.32	859.6624	-38546.4
2006/07	23342.29	674	2680.21	7183525.64	68.06	4632.164	182415.1
2007/08	31915.05	746.47	11252.97	126629334	140.53	19748.68	1581380
SUM	x = 20662.08	y= 605.94		x 2= 215264082		y 2= 55548.18	xy = 3241151.27

Here,

r = - 0.9373 r^2 = 0.8785 P. Er. = 0.0366 6P. Er. = 0.2198

Appendix F - 8

Correlation between Total Deposit and Net Profit of SCBNL

(Rs. in million)

F/Y	T. D (X)	N. P (Y)	x= X- $\bar{x}$	x^2	y=Y- $\bar{y}$	y^2	x y
2003/04	21161.46	537.8	-2428.26	5896447	-111.47	12425.56	270678.1
2004/05	19335.1	539.2	-4254.62	18101791	-110.07	12115.4	468306
2005/06	23061.03	658.76	-528.69	279513.1	9.49	90.0601	-5017.27
2006/07	24647.02	691.67	1057.3	1117883	42.4	1797.76	44829.52
2007/08	29744	818.92	6154.28	37875162	169.65	28781.12	1044074
SUM	x= 23589.72	y= 649.27		x2= 63270796.7		y2= 55209.91	xy= 1822870.02

Here,

r = 0.9753 r^2 = 0.9512 P. Er. = 0.0147 6P. Er. =0.0882

Appendix F - 9

Correlation between Total Deposit and Net Profit Of HBL

(Rs. in million)

F/Y	T. D (X)	N. P (Y)	x= X- $\bar{x}$	x^2	y=Y- $\bar{y}$	y^2	x y
2003/04	22010.34	263.05	-5030.94	25310357	-102.73	10553.45	516828.5
2004/05	24814.01	308.28	-2227.27	4960732	-57.5	3306.25	128068
2005/06	26490.85	457.46	-550.43	302973.2	91.68	8405.222	-50463.4
2006/07	30048.42	491.82	3007.14	9042891	126.04	15886.08	379019.9
2007/08	31842.79	308.28	4801.51	23054498	-57.5	3306.25	-276087
SUM	x= 27041.28	y= 365.78		x2= 62671451.38		y2= 41457.26	xy= 697366.17

Here,

r = 0.4326 r^2 = 0.1872 P. Er. = 0.2452 6P. Er. =1.4711

Correlation between Total Deposit and Net Profit

Banks	**Evaluation Criteria**			
	R	r^2	P.Er.	6P.Er.
NABIL	-0.9373	0.8785	0.0366	0.2198
SCBNL	0.9753	0.9512	0.0147	0.0882
HBL	0.4326	0.1872	0.2453	1.4711

Appendix F - 10

Correlation between Total Deposit and Total Interest Earned of NABIL

(Rs. in million)

F/Y	T. D (X)	T. I. E (Y)	$x = X - \bar{x}$	x^2	$y = Y - \bar{y}$	y^2	x y
2003/04	14119.03	1001.62	-6543.05	42811503.3	-387.75	150350.1	2537068
2004/05	14586.61	1068.75	-6075.47	36911335.7	-320.62	102797.2	1947917
2005/06	19347.4	1310	-1314.68	1728383.5	-79.37	6299.597	104346.2
2006/07	23342.29	1587.76	2680.21	7183525.64	198.39	39358.59	531726.9
2007/08	31915.05	1978.7	11252.97	126629334	589.33	347309.8	6631713
SUM	x = 20662.08	y = 1389.37		$x2$ = 215264082		$y2$ = 646115.29	xy = 11752770.65

Here,

r = 0.9966 r^2 = 0.9931 P. Er. = 0.0021 6P. Er. = 0.0125

Appendix F - 11

Correlation between Total Deposit and Total Interest Earned of SCBNL

(Rs. in million)

F/Y	T. D (X)	T. I. E (Y)	$x = X - \bar{x}$	x^2	$y = Y - \bar{y}$	y^2	x y
2003/04	21161.46	1042.18	-2428.26	5896446.63	-216.55	46893.9	525839.7
2004/05	19335.1	1058.68	-4254.62	18101791.3	-200.05	40020	851136.7
2005/06	23061.03	1189.6	-528.69	279513.116	-69.13	4778.957	36548.34
2006/07	24647.02	1411.98	1057.3	1117883.29	153.25	23485.56	162031.2
2007/08	29744	1591.2	6154.28	37875162.3	332.47	110536.3	2046113
SUM	x = 23589.72	y = 1258.73		$x2$ = 6321586.64		$y2$ = 225714.7	xy = 3621586.64

Here,

r = 0.9584 r^2 = 0.9184 P. Er. =0.0246 6P. Er. = .1476

Appendix F - 12

Correlation between Total Deposit and Total Interest Earned of HBL

(Rs. in million)

F/Y	T. D (X)	T. I. E (Y)	$x = X - \bar{x}$	x^2	$y = Y - \bar{y}$	y^2	x y
2003/04	1245.89	-5030.94	25310357	-365.72	133751.1	1839915	-167262.39
2004/05	1446.47	-2227.27	4960732	-165.14	27271.22	367811.4	274324.67
2005/06	1626.47	-550.43	302973.2	14.86	220.8196	-8179.39	-13771.20
2006/07	1775.58	3007.14	9042891	163.97	26886.16	493080.7	-33282.50
2007/08	1963.65	4801.51	23054498	352.04	123932.2	1690324	690085.82
SUM	x = 27041.28	y = 1611.61		$x2$ = 62671451.38		$y2$ = 31261.48	xy = 4382951.68

Here,

r = 0.9911 r^2 =0.9823 P. Er. =0.0054 6P. Er. = 0.0321

Correlation between Total Deposit and Total Interest Earned

Banks	Evaluation Criteria			
	r	r^2	P.Er.	6P.Er.
NABIL	0.9966	0.9931	0.0021	0.0125
SCBNL	0.9584	0.9184	0.0246	0.1476
HBL	0.9911	0.9823	0.0054	0.0321

Appendix F - 13

Correlation between Loan and Advances to Interest Paid of NABIL

(Rs. in million)

F/Y	L & A (X)	T. I. P (Y)	$x= X- \bar{x}$	x^2	$y=Y- \bar{y}$	y^2	x y
2003/04	8189.99	282.94	-5531.92	30602138.9	-156.62	24529.82	866409.3
2004/05	10586.17	243.54	-3135.74	9832865.35	-196.02	38423.84	614667.8
2005/06	12922.54	357.16	-799.37	638992.397	-82.4	6789.76	65868.09
2006/07	15545.78	555.71	1823.87	3326501.78	116.15	13490.82	211842.5
2007/08	21365.05	758.44	7643.14	58417589.1	318.88	101684.5	2437244
SUM	$x=$ 13721.91	$y=$ 439.56		$x2=$ 102818087.5		$y2=$ 102818087	$xy=$ 4196032.14

Here,

r = -0.9623 r^2 =0.9260 P. Er. = 0.0223 6P. Er. = 0.1339

Appendix F - 14

Correlation between Loan and Advances to Interest Paid of SCBNL

(Rs. in million)

F/Y	L & A (X)	T. I. P (Y)	$x= X- \bar{x}$	x^2	$y=Y- \bar{y}$	y^2	x y
2003/04	6410.24	272.24	-3131.78	9808046	-70.63	4988.597	221197.6
2004/05	8143.21	254.13	-1398.81	1956669	-88.74	7874.788	124130.4
2005/06	8935.42	303.2	-606.6	367963.6	-39.67	1573.709	24063.82
2006/07	10502.64	413.06	960.62	922790.8	70.19	4926.636	67425.92
2007/08	13718.6	471.73	4176.58	17443820	128.86	16604.9	538194.1
SUM	$x=$ 9542.02	$y=$ 342.87		$x2=$ 30499290.23		$y2=$ 35968.63	$xy=$ 975011.86

Here,

r = -0.9309 r^2 =0.8666 P. Er. =0.0402 6P. Er. = 0.2415

Appendix F - 15

Correlation between Loan and Advances to Interest Paid of HBL

(Rs. in million)

F/Y	L & A (X)	T. I. P (Y)	x= X- $\bar{x}$	x^2	y=Y- $\bar{y}$	y^2	x y
2003/04	11951.87	1245.89	-3151.02	9928927	-365.72	133751.1	1152391
2004/05	12424.52	1446.47	-2678.37	7173666	-165.14	27271.22	442306
2005/06	14642.56	1626.47	-460.33	211903.7	14.86	220.8196	-6840.5
2006/07	16998	1775.58	1895.11	3591442	163.97	26886.16	310741.2
2007/08	19497.52	1963.65	4394.63	19312773	352.04	123932.2	1547086
SUM	x= 15102.89	y= 1611.61		x 2= 40218711.36		y2= 3445683.28	xy= 3445683.28

Here,

r = -0.9762 r^2 = 0.9460 P. Er. =0.0163 6P. Er. = 0.0978

Correlation between Loan and Advances to Interest Paid

Banks	**Evaluation Criteria**			
	R	r^2	P.Er.	6P.Er.
NABIL	-0.9623	0.9260	0.0223	0.1339
SCBNL	-0.9309	0.8666	0.0402	0.2415
HBL	-0.9762	0.9460	00163	0.0978

Appendix F - 16

Correlation between Total Working Fund to Net Profit of NABIL

(Rs. in million)

F/Y	T. W. F (X)	N. P (Y)	x= X- $\bar{x}$	x^2	y=Y- $\bar{y}$	y^2	x y
2003/04	16745.61	455.32	-7384.01	54523603.7	-150.62	22686.38	1112180
2004/05	17186.33	518.64	-6943.29	48209276	-87.3	7621.29	606149.2
2005/06	22329.97	635.26	-1799.65	3238740.12	29.32	859.6624	-52765.7
2006/07	27253.39	674	3123.77	9757939.01	68.06	4632.164	212603.8
2007/08	37132.76	746.47	13003.14	169081650	140.53	19748.68	1827331
SUM	x= 24129.62	y= 605.94		x 2= 284811208.7		y2= 55548.18	xy= 3705498.12

Here,

r = 0.9316 r^2 =0.9316 P. Er. =0.0087 6P. Er. = 1.7941

Appendix F - 17

Correlation between Total Working Fund to Net Profit of SCBNL

(Rs. in million)

F/Y	T. W. F (X)	N. P (Y)	$x = X - \bar{x}$	x^2	$y = Y - \bar{y}$	y^2	x y
2003/04	23642.06	537.8	-3005.04	9030265	-111.47	12425.56	334971.8
2004/05	21893.58	539.2	-4753.52	22595952	-110.07	12115.4	523219.9
2005/06	25767.35	658.76	-879.75	773960.1	9.49	90.0601	-8348.83
2006/07	28596.67	691.67	1949.57	3800823	42.4	1797.76	82661.77
2007/08	33335.79	818.92	6688.69	44738574	169.65	28781.12	1134736
SUM	x = 26647.09	y = 649.27	-0.01	x 2= 80939575		y 2= 55209.91	xy = 2067241

Here,

r = 0.9779 r^2 = 0.9563 P. Er. =0.0132 6P. Er. =0.0791

Appendix F - 18

Correlation between Total Working Fund to Net Profit of HBL

(Rs. in million)

F/Y	T. W. F (X)	N. P(Y)	$X = X - \bar{x}$	x^2	$y = Y - \bar{y}$	y^2	x y
2003/04	24762.02	263.05	-5505.02	30305245.2	-102.73	10553.45	565530.7
2004/05	27418.16	308.28	-2848.88	8116117.25	-57.5	3306.25	163810.6
2005/06	29460.39	457.46	-806.65	650684.223	91.68	8405.222	-73953.7
2006/07	33519.14	491.82	3252.1	10576154.4	126.04	15886.08	409894.7
2007/08	36175.53	308.28	5908.49	34910254.1	-57.5	3306.25	-339738
SUM	x = 30267.04	$_y$ = 365.78		x 2= 84558455.17		$_y$ 2= 41457.26	xy = 725544.14

Here, r = 0.3875 r^2 = 0.1502 P. Er. =0.2563 6P. Er. = 1.5380

Correlation between Total Working Fund to Net Profit

Banks	**Evaluation Criteria**			
	R	r^2	P.Er.	6P.Er.
NABIL	0.9316	0.9316	0.0087	1.7941
SCBNL	0.9779	0.9563	0.0132	0.0791
HBL	0.3875	0.1502	0.2563	1.5380

Appendix G - 1

Trend Value of Total Deposit of NABIL

(Rs. in million)

F/Y (t)	T. D (y)	x = t- 2002.5	x^2	x y	y = a + b x
2003/04	14119.03	-2	4	-28238.1	11792.54
2004/05	14586.61	-1	1	-14586.6	16227.31
2005/06	19347.4	0	0	0	20662.08
2006/07	23342.29	1	1	23342.29	25096.85
2007/08	31915.05	2	4	63830.1	29531.62
N=5	103310.4		x 2=10	44347.72	

Now,

$$a = \frac{y}{N} = \frac{103310.4}{5} = 20662.08 \qquad b = \frac{xy}{x^2} = \frac{44347.72}{10} = 4434.772$$

Trend value of total deposit of NABIL from the F/Y 2008/09 to 2012/013

F/Y (t)	x = t - 2002.5	y = a + b x
2008/2009	3	33966.4
2009/2010	4	38401.17
2010/2011	5	42835.94
2011/2012	6	47270.71
2012/2013	7	51705.48

Appendix G - 2

Trend Value of Total Deposit of SCBNL

(Rs. in million)

F/Y (t)	T. D (y)	x = t - 2002.5	x^2	x y	y = a + b x
2003/04	15430.05	-2	4	-42322.9	19074.32
2004/05	15835.75	-1	1	-19335.1	21322.02
2005/06	18755.64	0	0	0	23569.72
2006/07	21161.46	1	1	24647.02	25817.42
2007/08	19335.1	2	4	59488	28065.12
N = 5	y =90518		x 2 = 10	xy =22477	

Here,

$$a = \frac{y}{N} = \frac{117948.6}{5} = 23589.72 \qquad b = \frac{xy}{x^2} = \frac{22477}{10} = 2247.7$$

Trend value of total deposit of SCBNL from the F/Y 2008/09 to 2012/013

F/Y	x= t - 2002.5	y = a + b x
2008/2009	3	30332.82
2009/2010	4	32580.52
2010/2011	5	34828.22
2011/2012	6	37075.92
2012/2013	7	39323.62

Appendix G - 3

Trend Value of Total Deposit of HBL

(Rs. in million)

F/Y (t)	T. D (y)	x = t - 2002.5	x^2	x y	y = a + b x
2003/04	22010.34	-2	4	-44020.7	22061.42
2004/05	24814.01	-1	1	-24814	24551.35
2005/06	26490.85	0	0	0	27041.28
2006/07	30048.42	1	1	30048.42	29531.21
2007/08	31842.79	2	4	63685.58	32021.1
N = 5	y =135206.4		x 2=10	xy =17745.29	

Here, a = $\frac{y}{N} = \frac{135206.4}{5}$ = 27041.28 b = $\frac{xy}{x^2} = \frac{24899.31}{10}$ = 2489.931

Trend value of total deposit of HBL from the F/Y 2008/09 to 2012/013

F/Y (t)	x= t-2002.5	y = a + b x
2008/2009	3	34511.07
2009/2010	4	37001
2010/2011	5	39490.94
2011/2012	6	41980.87
2012/2013	7	44470.8

Appendix G - 4

Trend Value of Loan and Advances of NABIL

(Rs. in million)

F/Y (t)	L & A (y)	x = t - 2002.5	x^2	x y	y = a + b x
2003/04	8189.99	-2	4	-16380	7459.96
2004/05	10586.17	-1	1	-10586.2	10590.93
2005/06	12922.54	0	0	0	13721.91
2006/07	15545.78	1	1	15545.78	16852.88
2007/08	21365.05	2	4	42730.1	19983.85
N = 5	y = 41702.65		x 2= 10	xy =31309.73	

Here, a = $\frac{y}{N} = \frac{468609.53}{5}$ = 13721.91 b = $\frac{xy}{x^2} = \frac{31309.73}{10}$ = 3130.973

Trend value of loan and advances of NABIL from the F/Y 2008/09 to 2012/013

F/Y (t)	x = t - 2002.5	y = a + b x
2008/2009	3	10278.27
2009/2010	4	10924.19
2010/2011	5	11570.10
2011/2012	6	12216.02
2012/2013	7	12861.93

Appendix G - 5

Trend Value of Loan and Advances of SCBNL

(Rs. in million)

F/Y (t)	L & A (y)	x = t - 2002.5	x^2	x y	y = a + b x
2003/04	6410.24	-2	4	-12820.5	6146.792
2004/05	8143.21	-1	1	-8143.21	7844.407
2005/06	8935.42	0	0	0	9542.022
2006/07	10502.64	1	1	10502.64	11239.64
2007/08	13718.6	2	4	27437.2	12937.25
N = 5	y =31376.4		x 2 = 10	xy = 1697.15	

Here,

$$a = \frac{y}{N} = \frac{47710.11}{5} = 9542.022 \qquad b = \frac{xy}{x^2} = \frac{16976.15}{10} = 1697.615$$

Trend value of Loan and Advances of NABIL from the F/Y 2008/09 to 2012/013

F/Y (t)	x = t - 2002.5	y = a + b x
2008/2009	3	14634.87
2009/2010	4	16332.48
2010/2011	5	18030.1
2011/2012	6	19727.71
2012/2013	7	21425.33

Appendix G - 6

Trend Value of Loan and Advances of HBL

(Rs. in million)

F/Y (t)	L & A (y)	x = t - 2002.5	x^2	x y	y = a + b x
2003/04	11951.87	-2	4	-23903.7	11169.93
2004/05	12424.52	-1	1	-12424.5	13136.41
2005/06	14642.56	0	0	0	15102.89
2006/07	16998	1	1	16998	17069.37
2007/08	19497.52	2	4	38995.04	19035.85
N = 5	y =75514.47		x 2=10	xy =19664.78	

Here,

$$a = \frac{y}{N} = \frac{75514.47}{5} = 15102.89 \qquad b = \frac{xy}{x^2} = \frac{19664.78}{10} = 1966.478$$

Trend value of loan and advances of HBL from the F/Y 2008/09 to 2012/013

F/Y (t)	x = t -2002.5	y = a + b x
2008/2009	3	
2009/2010	4	22968.8
2010/2011	5	24935.28
2011/2012	6	26901.76
2012/2013	7	28868.24

Appendix G - 7

Trend Value of Total Investment of NABIL

(Rs. in million)

F/Y (t)	INV (y)	x = t - 2002.5	x^2	x y	y = a + b x
2003/04	5835.95	-2	4	-11671.9	4456.214
2004/05	4267.23	-1	1	-4267.23	5744.786
2005/06	6178.53	0	0	0	7033.358
2006/07	8945.31	1	1	8945.31	8321.93
2007/08	9939.77	2	4	19879.54	9610.502
N = 5	y =35166.79		x 2=10	xy =12885.72	

Here,

$$a = \frac{y}{N} = \frac{35166.79}{5} = 7033.358 \qquad b = \frac{xy}{x^2} = \frac{12885.72}{10} = 1288.572$$

Trend value of total investment of NABIL from the F/Y 2008/09 to 2012/013

F/Y (t)	x = t -2002.5	y = a + b x
2008/2009	3	10899.07
2009/2010	4	12187.65
2010/2011	5	13476.22
2011/2012	6	14764.79
2012/2013	7	16053.36

Appendix G - 8

Trend Value of Total Investment of SCBNL

(Rs. in million)

F/Y (t)	INV(y)	x = t - 2002.5	x^2	x y	y = a + b x
2003/04	11360.33	-2	4	-22720.7	6710.332
2004/05	9702.55	-1	1	-9702.55	9490.796
2005/06	12838.56	0	0	0	12271.26
2006/07	13553.23	1	1	13553.23	15051.72
2007/08	13902.32	2	4	27804.64	17832.19
N = 5	y =61356.99		x 2=10	xy =2404.79	

Here,

$$a = \frac{y}{N} = \frac{61356.99}{5} = 12271.26 \qquad b = \frac{xy}{x^2} = \frac{27804.64}{10} = 27804.64$$

Trend value of Total Investment of SCBNL from the F/Y 2008/09 to 2012/013

F/Y (t)	x = t -2002.5	y = a + b x
2008/2009	3	20612.65
2009/2010	4	23393.12
2010/2011	5	26173.58
2011/2012	6	28954.04
2012/2013	7	31734.51

Appendix G - 9

Trend Value of Total Investment of HBL

(Rs. in million)

F/Y (t)	INV(y)	x = t - 2002.5	x^2	x y	y = a + b x
2003/04	9292.1	-2	4	-18584.2	6071.258
2004/05	11692.34	-1	1	-11692.3	8739.294
2005/06	10889.03	0	0	0	11407.33
2006/07	11822.98	1	1	11822.98	14075.37
2007/08	13340.18	2	4	26680.36	16743.4
N = 5	y=57036.63		x2=10	xy=26680.36	

Here,

$$a = \frac{y}{N} = \frac{57036.63}{5} = 11407.33 \qquad b = \frac{xy}{x^2} = \frac{26680.36}{10} = 2668.036$$

Trend value of Total Investment of HBL from the F/Y 2008/09 to 2012/013

F/Y (t)	x = t -2002.5	y = a + b x
2008/2009	3	19411.44
2009/2010	4	22079.47
2010/2011	5	24747.51
2011/2012	6	27415.55
2012/2013	7	30083.58

Appendix G- 10

Trend Value of Net Profit of NABIL

(Rs. in million)

F/Y (t)	N .P (y)	x = t - 2002.5	x^2	x y	y = a + b x
2003/04	291.37	-2	4	-582.74	262.99
2004/05	271.63	-1	1	-271.63	326.82
2005/06	416.25	0	0	0	390.64
2006/07	455.32	1	1	455.32	454.47
2007/08	518.64	2	4	1037.28	518.29
N = 5	y=1953.21		x2=10	xy= 638.23	

Here, $a = \frac{y}{N} = \frac{1953.21}{5} = 390.642$ $\qquad b = \frac{xy}{x^2} = \frac{638.23}{10} = 63.823$

Trend value of Net Profit of NABIL from the F/Y 2008/09 to 2012/013

F/Y (t)	x = t -2002.5	y = a + b x
2008/2009	3	582.11
2009/2010	4	645.93
2010/2011	5	709.76
2011/2012	6	773.58
2012/2013	7	837.40

Appendix G - 11

Trend Value of Net Profit of SCBNL

(Rs. in million)

F/Y (t)	N. P (y)	x=t-2002.5	x^2	x y	y = a + b x
2003/04	537.8	-2	4	-1075.6	12128.32
2004/05	539.2	-1	1	-539.2	12199.79
2005/06	658.76	0	0	0	12271.26
2006/07	691.67	1	1	691.67	12342.73
2007/08	818.92	2	4	1637.84	12414.2
N = 5	y=3246.35		x2=10	xy=714.71	

Here,

$$a = \frac{y}{N} = \frac{3246.35}{5} = 649.27 \qquad b = \frac{xy}{x^2} = \frac{714.71}{10} = 71.471$$

Trend value of Net Profit of SCBNL from the F/Y 2008/09 to 2012/013

F/Y (t)	x = t -2002.5	y = a + b x
2008/2009	3	12485.67
2009/2010	4	12557.14
2010/2011	5	12628.62
2011/2012	6	12700.09
2012/2013	7	12771.56

Appendix G - 12

Trend Value of Net Profit of HBL

(Rs. in million)

F/Y (t)	N. P (y)	x = t - 2002.5	x^2	X y	y = a + b x
2003/04	263.05	-2	4	-526.1	11352.53
2004/05	308.28	-1	1	-308.28	11379.93
2005/06	457.46	0	0	0	11407.33
2006/07	491.82	1	1	491.82	11434.73
2007/08	308.28	2	4	616.56	11462.13
N = 5	y=1295.52		x 2=10	xy=274	

$$a = \frac{y}{N} = \frac{1828.89}{5} = 365.778 \qquad b = \frac{xy}{x^2} = \frac{274}{10} = 27.4$$

Trend value of Net Profit of HBL from the F/Y 2008/09 to 2012/013

F/Y (t)	x = t -2002.5	y = a + b x
2008/2009	3	11489.53
2009/2010	4	11516.93
2010/2011	5	11544.33
2011/2012	6	11571.73
2012/2013	7	11599.13