## CHAPTER - I

## INTRODUCTION

### 1.1 Background

Industrial development is an obligation for any nation in its all-round development and for the industrialization; economic activities are the most as its infrastructure. Such economic activities are expected to be performed by any institutions under the policy of the state. Therefore institutionalization of the economic activities is essential for the usual development of the state but in our country, we have a short history of such institutions that performed economic activities. Before, 1842 B.S. the local 'gold smith' and 'money lender' participated in general type of economic activities by collecting valuable metals from the public. Gradually, it developed as 'TEJARATHA ADDA' under the premiership of Ranodeep Singh. ${ }^{1}$ This was the first institution to carry of economic activities and Banking system. On the cause of the development of economic institutions "Nepal Bank Limited" was established as the first commercial bank in Nepal under the Nepal Bank Act, 1994 in 1994 B.S. After that, Nepal entered into the institutionalized system of modern banking with the establishment of the bank, which has been contributing to manage the financial resources to maintain the infrastructure for the development of nation. The base of the economic development of banks of the nation is impossible without the development of agriculture, industry, trade and commerce. The commercial banks are responsible for collecting and providing economic resources for the development of the sited sectors. 'Nepal Rastra Bank' was established on $14^{\text {th }}$ Baisakh 2013 B.S. under the 'Nepal Rastra Bank Act, 2012 B.S. Nepal Rastra Bank has been recognized as the central bank of Nepal and deserves the power to establish any commercial bank and to direct the activities to other banks accordance with the 'Nepal Rastra Bank Act, 1012.'

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### 1.2 Statement of the Problem

Private joint venture banks have established continued in response to the economic liberalization policies of the government. In urban areas like Kathmandu, Biratnagar, Pokhara, Nepaljung etc. has raised the certain questions. This state of affairs cannot contribute much to the socio-economic development of the country where $90 \%$ of population depends upon reluctant to extent their operation in rural areas. Despite of the compulsory investment of $10 \%$ of their total investment in the rural areas. But these banks are inclined to pay fines less profitable sector. This problem remains to be solved, so that even the small investors in the rural area will, benefit from the services of such banks. Moreover, even the existing branches of the commercial banks in the rural area don not seem to have been able to mobilize the local resource effectively.

In this study basically focus our attention to reveal the struggle and success achieved there from by the Nabil and NSBIBL commercial banks main motive is to make profit by providing quality service to the customers. In Nepal the profitability rate operating expenses dividend distribution among shareholders etc. have been found in consistent. Typically that study find out that through they had employed the same amount as authorized. Capital in the initial year but saw the different earning capacity. The problem of the study will ultimately find out the reasons about difference in financial performance between Nabil and SBI banks.

Thus the present study seeks to explore the efficiency and weakness of Nabil and NSBIBL. Attempts are also being made to explore the answers to the following questions:

- How far have Nabil and NSBIBL been able to convent the mobilized resource into investment?
- How efficiently these banks are managing their liquidity, assets, capital structure etc?
- Based on the above questions, which banks have faced financial risk?


### 1.3 Objectives of the Study

The primary objective of this study is to make comparative analysis of the financial performance of Nabil and Nepal SBI Bank and to recommend suggestions for the improvement of state of affairs are as follows:

- To examine financial performance of Nabil and Nepal SBI Banks.
- To find out the relationship between Total debt and Net profit after tax, Loan \& advances and total deposit, Loan \& advances to Net profit after tax, Cash \& bank balance and total current Liabilities.
- To evaluate the monitoring and collecting policies of two banks.
- To offer package of suggestions to improve the financial performance of two banks.


### 1.4 Significance of the Study

Different parties remain under influence from any of the business firm directly or indirectly. For every business firm performs economic activities.

All investors invest their fund on share for the purpose of getting returns. For getting their purpose, the firms always maximize the value of the firm.

Different investors invest their funds in joint venture banks and simultaneously they take a more accurate interest in the economic condition of the institution i.e. debtors for interest, shareholders and government for dividend, top management for remuneration so on that come to maximize the value of the firm.

It will help us also as a literature for the further study about the related topics of financial performance. Similarly the firms would follow the suggestion of the study to make their policy and strategy more practical and scientific.

The study has multi-dimensional significance:
(i) The study enlightens the shareholders about the financial at their respective books this allows them to have a comparative research whether their fund was better authorized or not.
(ii) The study also compels the management of respective banks for self arrangement of what they have done in the past and guides them in their future plans and programs.
(iii) The financial agencies, stock exchange and stock traders are also interested in the performance of the banks as well as the customers depositors and debtors who can objectives identify the better the to deal with in terms of profitability satisfy and liquidity.
(iv) Policy makes at the macro level that is government and Nepal Rastra Bank will also benefit regarding the formulation of further policies in regard to economic development through banking institutions.

### 1.5 Limitation of the Study

This study is not free from limitations. Having reliable and sufficient data and necessary literatures, some limitations of this study are as follows:

- This study is based on only the financial report of the firm for the last seven years.
- Among the various joint venture banks, the study focuses only on Nabil bank and Nepal SBI Bank Limited.
- Only secondary data will be analyzed to interpret result emerging from decision. Consequently the result depends on the reliability of secondary data. Some cases primary data also used.
- Time factor is major limitation of this study, because this study is completed within a short span of time. This study covered past seven fiscal years.
- This study has not paid attention towards the fund flows and cash flows.


### 1.6 Design of the Study

This study has been organized into five major chapters:

## Chapter One : Introduction

Chapter one, deals with the general background of the study with the subject matter of the study. This chapter consist the statement of the problem. Focus of the study objectives of the study, Research methodology and organization of the study.

## Chapter Two: Review of Literature

This chapter includes review of major empirical works articles. It also includes conceptual framework mainly concept of commercial banks. Role and functions of commercial banks, evaluation, objectives and role of joint ventures banks and other side. Concept of financial statement, meaning of ratio analysis, trend analysis.

## Chapter Three: Research Methodology

Chapter Three deals with research methodology adopted to achieve the objective of the study, research questions it consist of the research design, source of date and data collection method.

## Chapter Four : Presentation and Analysis of Data

Chapter four deals with presentation and analysis of relevant data and information through a definite course of research methodology. Analysis is different ratio and presentation of trend analysis depend on the data.

## Chapter Five : Summary, Conclusion and Recommendations

Lastly, chapter five summarizes the whole study, conclusion of the study and recommendation for the improvement in future to the related banks and interested group.

Bibliography and Appendix have also been incorporated at the end of the study.

## CHAPTER - II

## REVIEW OF LITERATURE

In this chapter an attempt has been to provide the theoretical foundation of financial performance analysis of Nepal Arab Bank Limited and Nepal SBI Bank Limited and review studies mainly done about financial performance analysis inside and outside the country.

### 2.1 Theoretical Review

### 2.1.1 Meaning of Banks

"Bank means an institution, which deals with money". A bank performs several financial, monetary and economic activities which are very essential for economic development of any country. "A banker as a bank is a person, firm or company, having a place of business, where creditors are open by the deposit or collection of money or currency subject to be paid or remitted upon draft, cheque or order or where money is advanced or loaned on stocks, bonds, bullion and bells of exchange and promising notes are received for discount and sale. ${ }^{2}$ Broadly, bank draws surplus money from the people who are not using it at present and hoarding for future and supplies loan to those who are in position to use it for productive purpose. Modern banks can be considered as the evolvement from the ancient goldsmith, money lender etc. Now, different types of financial institutions are established with different purposes. Modern banks provide different types of services to the people. Basically, bank perform various types of services i.e. collect deposit from the public, grant loan to those investors who want to invest in business, industry and other sectors, overdraft, guarantee against any disable of payment, letter of credit, discounting bills, promissory notes, selling of other share to general public, agency function, task, limit of the storage commodities etc.

[^1]Modern commercial banks always make the economy alive and smart to run and maintain day-to-day commercial, economic and banking transactions. In short, banking transactions help a country to develop the economy. If there were systematic scientific programs for economic development as with developed programs with developed countries, this country would have developed its economy as much as those countries which have developed the whole economy these days and today's circle of the underdeveloped might have been, perhaps, narrowed down. Commercial bank provides number of facilities and can serve an important contribution to develop different sectors of the economy by accumulating the money scattered in small amount in the country to formulate capital for circulation and distribution to needy sector. In facts, the commercial banks are expected to run on the commercial principles. They are guided by the business motive. Earning of the profit is, therefore, the primary objectives of these banks.

### 2.1.2 Historical Development of Banking System in Nepal

The history of organized banking system in Nepal is very short. The history of modern banking system in Nepal, started with the establishment of Nepal Bank Limited as a first commercial bank. Nepal Bank Limited was incorporated under the Nepal Bank Act, 1973. The Bank's 51\% of shares hold by HMG/N and 49\% of shares have private sectors. When it was established, the authorised capital of this Bank was Rs. 10,000,000. That was also the first when no other commercial banks are central bank existed. Government has established the Nepal Rastra Bank as the central bank in Baisakh $14^{\text {th }} 2013$ B.S. In a developing country like Nepal, the central bank is supposed to help develop banking system for mobilization of resources and using them for the priority areas as envisaged development plans. On the other hand, the Central Bank control and monitors the lending activities of commercial and other banks.

In the year 2022 B.S. another commercial bank Rastriya Banijya Bank was established under the State Commercial Bank Act, 2021 B.S. The bank was especially established in response to the needs for forming a government owned commercial bank to look after the convenience and economic interest of the general public.

In 2037's, to meet the need of healthy competition in the financial system, Nepal allowed the entry of foreign banks as joint ventures with up to a maximum of $50 \%$ equities participation.

The government pursued such liberal economic policy in 2039 B.S. As a result, joint venture activities were welcomed in the various sectors. Hence, the first joint venture bank in Nepal was Nepal Arab Bank Limited. It was established in 2041 B.S. The head office of the bank is in Kathmandu.

The list of licensed commercial banks in Nepal is as follows:
(i) Nepal Bank Limited.
(ii) Rastriya Banijya Bank.
(iii) Nabil Bank Limited.
(iv) Nepal Investment Bank Limited.
(v) Standard Chartered Bank Limited.
(vi) Himalayan Bank Limited.
(vii) Nepal SBI Bank Limited.
(viii) Everest Bank Limited.
(ix) Nepal Bangladesh Bank Limited.
(x) Bank of Kathmandu.
(xi) Nepal Credit and Commercial Bank Limited.
(xii) Lumbini Bank Limited.
(xiii) Machapuchhre Bank Limited.
(xiv) Kumari Bank Limited.
(xv) Laxmi Bank Limited.
(xvi) Siddharth Bank Limited.
(xvii) Global Bank Ltd.
(xviii) Bank Of Asia Nepal Ltd.
(xix) Citizen Bank Ltd.

### 2.1.3 Profiles of Selected Banks

## (a) Nepal Arab Bank Limited:

Nabil Bank is first joint venture commercial bank in Nepal, which was incorporate in 1984 A.D. Dubai bank Ltd., was the initial foreign joint venture partner which with $50 \%$ equity investment. The share owned 'Dubai Bank Ltd. was transferred to Emirates Bank International Limited (EBIL), Dubai by virtue of its annexation with the later. Later on EBIL Dubai sold its $50 \%$ equity to National Bank Limited Bangladesh (NBLB). NBLB is managing the bank in accordance with the technical service agreement signed between NBLB and Nabil Bank on June 1995.

The main objective of this bank is to collect deposit, provide loans and to provide modern banking services to the public.

Authorised capital, issued capital and paid up capital of this bank are Rs. $50,00,00,000$ Rs 49, $16,54,400$ and Rs. 49, 16,54,400 at the end of year 2004 A.D. Its par value per share is Rs. 100 each and the number of shareholder of this bank is $49,16,544$.

## (b) Nepal SBI Bank Limited:

Nepal SBI Bank was established in 1993 A.D. as a joint venture commercial bank with foreign partner, State Bank of India under the company act, 1964. The bank started its banking operations on $8^{\text {th }}$ July 1993 with $50 \%$ equity participation by State Bank of India, $15 \%$ by employees provident fund (P.E.), $30 \%$ by general
public and 5\% by agriculture development bank. The bank is managed by State Bank of India under the joint venture and technical services agreement signed between it and Nepali promoters. The main objectives of this bank are to carryout modern banking service in Nepal under the commercial bank act 1974. The bank provides loan to agriculture, commercial and industrial sectors.

Authorised capital, issued capital, and paid up capital of this bank are Rs $1,000,000,000$, Rs $500,000,000$ and Rs $426,875,900$ respectively at the end of the year 2004. The number of shareholders of this bank is 205029 and its per value per share is Rs 100 each.

### 2.1.4 Concept of Banking

In general words, bank is a place, where money's transaction happens. In other words bank is an organization, which collects the deposit from various customers and grants the various kinds loan to them. It can be said that the bank is mediator of people because it takes deposit in one side and provides loan them in another side. So, the bank plays double role in the nation's economy.

Bank is a financial institution, which plays a significant role in the development of the country. It facilities the growth of the trade and industry of the nation's economy. Bank is a resource for economy development, which maintains the selfconfidence of various segments of society and extends credit to the people.

A bank is a business organization that, receives and holds deposit of funds from others, makes loans or extends credit and transfer funds by written order of depositors.

The business of banking is one collecting funds from the community and extending credit (making loans) to people for useful purpose. Bank has played a vital role in moving money from the lender to borrower. Banking is a profit
seeking business not a community charity. As a profit seeker, it is expected to pay dividends and otherwise add to the wealth of its shareholders. ${ }^{3}$

The more developed financial system of the world characteristically falls into three parts: the central bank, the commercial bank and other financial institutions. They are also known as financial intermediaries. ${ }^{4}$

From the above explained definition of bank, the bank can be defined as the financial intermediaries, transfer of funds, loan provider, deposit receiver and profit seeker from the financial transactions.

### 2.1.5 Concept of Commercial Banks

Commercial banks are those financial institutions, which deal in accepting deposit of persons and institutions and given loans against securities. They provide working capital to trade, industry and even to agriculture sectors. More ever, commercial banks also provide technical and administrative assistance to industries, trade and business enterprises. The main purpose of priority sector investment Scheme is to uplift the backward sector of economy.

Commercial bank is corporation, which accepts demands deposits subjects to check and make short term loans to business enterprises, regardless of the scope of its other services. ${ }^{5}$

Commercial banks are the heart of the financial system; they hold the deposit of many persons, government establishment and business units. They make fund available through lending and investing activities to borrowers, individuals business firms and services from the producer to customers and the financial activities of the government .They provide a large portion of the medium of exchange and they are media through which monetary policy is affected. This fact

[^2]shows that the commercial banking system of the nation is important to the functioning of the economy. ${ }^{6}$

A commercial bank is one which exchanges deposited money, accepts deposits, grants loan and perform commercial banking functions and which is not a bank meant for co-operation agriculture industries or for such specific purpose. ${ }^{7}$

The commercial bank act, 2013 B.S. has further point out that commercial bank provides short and long term debt whenever necessary for trade and commerce. They take deposit from the public and grant loans in different forms. The purchase and discount bills of exchange, promissory notes and exchange foreign currency. They discharge various functions on behalf of their valued customer and they are paid for their services.

Summarizing the above definitions regarding commercial bank, it may be defined as "A bank is a financial institution which performs widest range of economic and financial functions of any business firms in the economy. Likewise commercial bank is that financial institutions which collect scattered saving of the people and provide loan against proper securities for their productive purpose. More ever, they also provide technical help and suggestions administrative suggestion, safekeeping of valuable, collection of bills, cheque, overdraft facilities and provide modern banking facilities to industries and commerce.

### 2.1. Functions of Commercial Bank

Commercial banks are the important type of financial institution for the nation in terms of aggregate assets. The business of banking is very broad in modern business age, the number and variety of services provided by commercial banking

[^3]includes the introductions of credit cards, accounting services for business firms factoring using participation in the Euro, Dollar market and luck box banking. The major functions of commercial bank are explained in brief.

## (a) Creating Money:

One of the major functions of a commercial bank that separates it from other financial institutions is the ability to create money and to destroy money, which is accomplished by the lending and investing activities. The power of commercial banking system of crates money is great economic significance it results in the elastic credit system that is necessary for economics progress a relatively steadily rate of growth.

## (b) Payment Mechanism:

Providing for a payment mechanism the transfer of funds is one of the important functions performed by commercial banks and it is increasing in importance as greater reliance is placed on the use of cheque and credit cards. More over, bank credit card can be used to withdraw cash from deposits account makes deposits and loans payment and transfer funds between depositor's saving and checking account.

## (c) Pooling of National Saving:

Commercial banks performs vital services to all sector of the economy by providing facilities for the pooling of national saving and making then available for economically and socially desirable purpose. The saver is rewarded by the payment of interest on his saving. These paroled funds are made available to businessman who may use them for the expansion of their productivity capacity and to consumers for such items on housing and consumer goods.

## (d) Extension of credit:

The major functions of commercial banks are the extension of credit to worthy to the economy for it makes possible the financing of the agriculture, commercial and individuals activities of the country. Moreover, the provision of bank credit provides for the smooth operation of government such as capital improvements of building of school and hospitals and purchasing of new fire-trucks. Constructions of highways and dams and for the nation defence.

## (e) Facilities for the Financing of Foreign Trade:

Other primary function of commercial banks is arranging for foreign exchange needed by business organization to pay in the foreign country. Bank provides more satisfactory guarantee to an individual or firms brought the insurance of commercial letter of credit, drafts, telegraphic transfer and accepting traveller's letter of credit as the letter cheque.

## (f) Trust Service:

Increased incomes have made possible the accumulation of wealth, which has contributed to the growth of the trust services of commercial banks. Trust department serve as trustees in connection with bond issues and as transfer agents and register for corporation. They may also administer sinking funds and perform other related activities annunciates with the issuance and redemption of boards and stocks.

## (g) Safe Keeping of Valuation:

The safe keeping of valuables is one of the oldest services provided by commercial banks. The protection of valuables falls into two areas a department of a bank. Safe deposit boxes are made available to customer on a rental basis that may be useful provides a place for securities, deeds, insurance policies and personnel items of valuable only to the owner. In other hand, safe keeping differs
from safe deposits box service in that the bank has custody of the valuables and acts as an agent for the customer.

## (h) Capital Formation:

The vital role of commercial banks is to provide facilities for the collection of saving and make lack resource available for economically and socially desired projects. It collects funds from a wide variety of depositors and invests them for development and individual projects. This leads to capital formation and employment generation.

## (i) Financing of Trade:

Trade in crucial for any economy. Commercial banks facilitate the financing of international trade transactions of business houses. These banks provide services like exchange of foreign currencies, issuance of letters of credit, telegraphic transfer and the like.

### 2.1.7 Role of Commercial Banks in a Developing Economy

A well developed banking system is a necessary pre-condition for economic development in a modern economy. Besides providing financial resource, it influences the direction in which these resources are to be utilized. In the underdeveloped and developing countries, not only the banking facilities are limited to a few development activities of urban areas, but also the banking activities are limited mostly to trade and agriculture. Structural as well as functional reforms in banking system are needed to enable the banks perform development role in underdeveloped countries. ${ }^{8}$

In a modern economy, banks are to be considered not merely as dealers in money but also the leaders in development. They are not first the reservoirs of resource

[^4]necessary for economic development. Banks play on important role in the development of a country. Commercial banks can contribute to a country's economic development in the following way.

Capital formation is the most important determinant of economic development and banks promote capital formation. They stimulate saving by providing a number of incentives to the server's such as interest on deposits, free and cheap remittance of funds, safe custody of valuables. By expanding their branches in different areas and they provide their service. They not only mobilize resources from those who have excess of them, but also make the resources available to those who have the opportunities of productive investment.

In an undeveloped country, entrepreneurs generally hesitate to invest in new ventures and undertake innovations largely due to lack of funds. Facilities of bank loans enable the entrepreneurs to step up their investment and innovation activities, adopt new method of production and increase productive capacity of the economy.

Economic progress recorded by the industrially advanced countries in the last two hundred years or so is mainly due to expansion in trade and industrialization; this could not have been made possible without the development of the banking system.

Underdeveloped economies are primarily agricultural economics and a majority of the population in those economics requires the development of agriculture and small-scale industries in rural areas. So far, banks in an underdeveloped country have been paying more attention to trade and commerce and have almost neglected agriculture and industry. Thus, necessary structural and functional reforms in the banking system of the underdeveloped countries should be made in order to encourage the banks to play development role in these economics not only
to extend credits to trade, but also to provide medium term and long term loans to industry and agriculture.

### 2.1.8 Financial Statement

Financial statement refers that statement, which systematically contains summarized information of the firm's financial affairs. These statements provide reliable financial information about economic resources and development of business firm's financial resources.

John N. Mayer has more lucidly stated, "The financial statements provide a summary of the accounts of a business firm the balance sheet, as reflecting the assets, liabilities and capital as of a certain data and income statement showing the results of operation during a certain period. ${ }^{9}$ Financial statements consist of income statement and balance sheet.

### 2.1.9 Financial Analysis

Analyzing financial statement helps us sort through and evaluate information, focusing attention or reliable information most relevant to our business decision.

To analyze financial data is to analyze the income statement, profit and loss account and balance sheet of the business. To know about the business's condition, every form should analyze the financial data. Financial analysis is the process of identifying the financial strength and weakness of the firm by properly establishing relation between the items of the balance sheet and profit and loss account. ${ }^{10}$

Financial analysis is both an analytical and judgmental process that helps answer the questions that have been properly posed and therefore it is a means to an end.

[^5]We can stress enough that financial analysis is an aid that allow those responsible for result to make sound decisions.

Balance sheet profit and loss account and the accompanying notes are the most widely used aspects of financial statement of bank. We need to understand that major characteristics of the bank balance sheet and profit and loss account. The bank's balance sheet is compared of financial claims as liabilities in the form of loans, fixed assets account for a small portion of the total assets. Financial innovation, which are generally contingent in nature are considered as off balance items. Interest required on loan or advances and investment and paid on deposit liabilities are the major components of the profit and loss account. The other sources of income are fees, commission, discount and service charges. ${ }^{11}$

At last we can say that financial statement analysis is helpful to the decision makes for finding out favourable and unfavourable situation of a business firm. Financial statement analysis is, therefore very useful to a number of parties who are related directly and indirectly to the firm. The analysis is an important to them for different aspects of their interest.

### 2.1.10 Tools of Financial Statement Analysis

Some of the important tools used in analyzing financial statement or comparative financial statement, fund flow and cash flow analysis and ratio analysis among various tools. ${ }^{12}$

### 2.1.10.1 Comparative Financial Statement

[^6]Comparative financial statement are statements of the financial position of a business so designed as to provide time prospective to the consideration of various elements of final position embodies in such statement. Theoretically any such statement can be belonging the family of comparative financial statement. However usually, it is the balance sheet and income statements, which along are prepared in a comparative form because they are most important statement of financial position. This is because; it is through the income statement that the impact of conduct of business is brought to bear on the balance sheet.

## (a) Comparative Balance Sheet:

Comparative balance sheet is a tool of financial statement analysis in which the items of balance sheet of at least two years are compared and the changes between data are indicated increase or decrease in absolute amount as well as in percentage. The objective of the comparative balance sheet can help to find out the increase or decrease in various assets and liabilities between one period to another. According to John N. Mayer, "The effects of the conduct of a business are reflected in its balance sheet by increase and decrease in the various assets and liabilities and in proprietary equity or capital. These changes can be observed by a comparison of balance sheet at the beginning and end of period and such observation often yields a considerable amount of information, which is of value in forming as opinion regarding the process of enterprises. To facilitate comparison, a simple device known as comparative balance sheet may be used. ${ }^{13}$ It may be defined as, "The study of the trend of the some items group of items are computed in two or more balance sheet of the some business enterprises on different dates. The great advantage of this analysis that it portrays that trend of particular nature of business enterprises and of the enterprises as whole. ${ }^{14}$

[^7]Jonh N. Mayer concludes, "Comparative balance sheet emphasizes on change due to the operations in the business between dates that is the conversion of assets liabilities and capital from into other and the various interactions among assets, liabilities and capital. ${ }^{15}$

## (b) Comparative Income Statement:

Comparative income statement shows the operating results for a number of accounting periods so that changes in absolute data from one period to another may be started in term of money and percentage. It contents the same column as the comparative balance sheet and provides the same type of information the amounts, balances, increases and decreases in monetary amounts and if desired, the percent of increase or decrease. ${ }^{16}$

Comparative income statement is a tool of financial statement analysis in which the items of income statement of at least two years are compared and changes between dates are indicated in absolute rupees and percentage increase or decrease.

### 2.1.10.2 Funds Flow and Cash Flow Analysis

## (a) Fund Flow Analysis:

The statement of changes in financial position prepared to determine only the source and uses of working capital between dates of two balance sheets is known as the fund flow statement. Different titles have been used by various corporation and business enterprises for the fund flow statement. The selection of the title is closely related to the purpose for which it is employed. This implies that the fund flow statement is concerned not only which source and application of fund but it

[^8]also measure the event affecting working capital. So it is also known as source and application of fund. Summary of financial operation, fund provided and its deposit changes in working capital, fund generated and expended and so on. An analysis based on this statement is generally called fund flow analysis or simple fund analysis. It may however, be pointed out that "fund analysis" make use of cash flow statement also, depicting the changes in the financial position between two different dates can be presented in various form and these forms have been designed to reflect the working capital movement. ${ }^{17}$

## (b) Cash Flow Analysis:

A statement of cash flows reports the cash receipts and cash payments of an entity during a period. It explains the cases for the changes in cash by providing information about operating, financing and investing activities. It explicitly shows information that reader of financial reports could otherwise obtain only makeshift analysis and interpretation of published balance sheet and statement of income and retained income. The statement of cash flows must be presented as a basic financial statement.

### 2.1.10.3 Ratio Analysis

A widely used tool of financial analysis is a ratio analysis. It refers to the numerical or quantitative relationship between two items or variables. It is the expressing of the relationship between two items either from balance sheet or from income statement or both statements. Ratio analysis is a yard stick tool to evaluate the financial performance and condition of the firm. Thus a ratio is defined as "the indicated quotient of two mathematical expressions" as the relationship between two or more things. ${ }^{18}$

[^9]Ratio analysis is the mathematical relationship between two related items expressed in quantitative form and is explained with references to the items show in financial statement then it called "accounting ratio" concerned with each other. ${ }^{19}$

### 2.1.10.4 Classification and Their Brief Introduction of Ratio Analysis

Ratio may be classified in number of ways keeping the particular purpose. There is not some view about classification at ratio analysis. Analysis to Vane Horne, "Different type of ratios are used in day to day, generally four types of ratios namely, liquidity, leverage, turnover and profitability ratios are used in analysis in the financial position of a company. ${ }^{20}$ Financial ratio can be grouped into five types i.e. liquidity ratio, debt ratio, profitability ratio, coverage ratio and market value ratio. ${ }^{21}$ In that issue, Western Brigham say, "It is useful to classify ratio into six fundamental types. They are liquidity ratio, leverage ratio, activity ratio, profitability ratio, growth ratio and valuation ratio. ${ }^{22}$

But the researcher has given brief introduction of useful ratio only for the study which are as follows:

## (a) Liquidity Ratio:

Liquidity ratio refers to the ability of a business firm to pay its short term obligation as and when they fall due for payment. In this regard, R.S. Pradhan express, "Liquidity refers to dearness to cash the lower is to its rate of return. The larger size of current assets is associated with high liquidity and low profitability

[^10]and vice-versa. Inadequate liquidity may lead a corporation to delay payments sell assets or obtain temporary financing on unfavourable terms. ${ }^{23 "}$

Liquidity ratios are used to Judge the firm's ability to meet its short-term obligation. It expresses the firm ability to meet its obligations at maturity. Liquidity ratio is computed either by comparing fixed charge and earning farm the income statement are by relating the debt and equity items from the balance sheet. It's measure the firms ability to fulfil short-term commitments out of its liquidity assets. In other words, if measures the firm's short-term strength to meet the shortterm liabilities. ${ }^{24}$

The following are the types of some important liquidity ratio and a brief introduction is also given.

## (i) Current Ratio:

Current ratio measures the firm's short-term solvency. It indicates the availability of current assets in rupees for everyone rupees of current liability. ${ }^{25}$

As Geneva rule 2:1 ratio is considered acceptable for most firms although it is only a rule of thus standard. Higher the current ratio greater is the profitability of prompt and full payment of current liability. Low ratio indicates the firm's Nabil to pay its future bills when due. It can be calculated as follows:

$$
\text { Current Ratio }=\frac{\text { Current Assets }}{\text { Total current Liabilities }}
$$

## (ii) Quick Ratio:

[^11]This ratio established relation between quick or liquid assets and current liabilities. The ratio is founded by dividing the total quick assets by total current liabilities.

As a guideline 1:1 quick ratio is deemed adequate for most firms out it should not be relied dangerously.

Quick Ratio $=\frac{\text { Quick or Liquid Assets }}{\text { Total Current Liabilities }}$

## (b) Activity/Turnover/Efficiency Ratios:

Activity ratio means measures how efficiency the company employees the resources at its command. To analyze the activities ratio, loans and advances to total deposit are selected "An activity ratio may be defined as a test of the relationship between loans and advances and the total deposits. ${ }^{26}$ In other words, the activity ratio represents the intensity with which the firm uses its deposit amounts. It is related with measuring the efficiency in invested management as well as deposit policy.

Activity ratios are intended to measure the effectiveness to employment of the resources in a business concern. Through this ratio, it's known whether the funds employed have been used effectively in the business activities or not. The following are the concerned banks.

## (i) Loan and Advances to Total Deposit Ratio:

This ratio assesses to what extend the banks are able to utilize the depositors funds to earn profit by providing loans and advances. It is computed dividing the total amount of loans and advance by total deposit funds. A high ratio represents the greater efficiency to utilize funds or proper utilization of funds provided by the

[^12]outsiders (total deposits) and vice-versa. The formula used to compute this ratio is as:

Loan and Advances to Total Deposit Ratio $=\frac{\text { Total Loan and Advances }}{\text { Total Deposits }}$

## (ii) Loan and Advances to Fixed Deposit Ratio

This ratio examines that how many times the funds is used in loans and advances against fixed deposits for commercial banks, fixed deposits are long term interest bearing obligations where as investment in loans and advances are the main sources of earning. This ratio is computed by dividing loans and advances by fixed deposit as under. A high ratio indicates idle cash balance. It means total funds are not properly utilized. This ratio is computed as:

Loans and Advances to Fixed Deposit Ratio $=\frac{\text { Total Loan \& Advances }}{\text { Total Fixed Deposits }}$

## (iii) Loan and Advances to Saving Deposit Ratio:

This ratio assesses how many times the funds are used to loans and advances against saving deposits. Saving deposits are interest bearing short-term obligation and the major sources of investment. In loans and advance for income generating purpose by CBS. This ratio is calculated by using formula as:

Loans and Advances to Saving Deposit Ratio $=\frac{\text { Total Loans \& Advances }}{\text { Total Saving Deposits }}$

## (iv) Investment to Total Deposits Ratio:

Investment implies those amounts of funds, which are granted as loans, advances, purchase of shares, purchase of bills of exchange, purchase of treasuring bills and securities. In addition, total deposit implies those amounts which are received by from its valuable depositors. These amounts are available in different amounts i.e.
saving, current fixed accounts. Hence, computations of investment by total deposits have been used to calculate to:

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

A high ratio indicates banks efficiency in investing its deposits. On the other hand, low ratio indicates banks Nabil to put its deposits into landing. Although it may help to maintain a sound liquidity position.

## (c) Leverage/Credit Structure Ratios:

Leverage refers the employment of an assets or sources of funds for which the firm has to pay a fixed lost or fixed return. Debt involves the payment of a stated rate of investment. So, leverage is also known as debt. The term leverage may be defined as the use of that sources of fund in the business for which the firms has to pay a fixed charge irrespective to the earning of the firm. Leverage ratios show how much of a firm's fund are financed by debt and equity. In other words, leverage ratios between equity capital and debt capital. The ratios are reflected with the capital structure, so these are called capital structure ratios. There are also knows as debt ratios. "The debt ratios measure the proportion of total assets provided by the firm's creditors. ${ }^{27}$ According to Western and Brigham, "Leverage ratios which measure the extent of which the firm has been financed by debt. ${ }^{28}$ Every business firm must be appropriate mixes at debt and easily in financing assets of the firm leverage ratio, which measure the funds supplied by owners as compared with the financing providing by the firm's creditors have a number of applications. The ratios are calculated to measure the financial risk and the firm's shareholders.

[^13]In practice, leverage ratio is approached in two ways. The first approaches examines the balance sheet ratio and calculate what proportion the borrowed capital occupies in the capital structure that is use calculated debt equity and debttotal capital ratio. That other approach measures the risk of debt by the income statement ratio is to calculate the number of items. Operating profits covers fixed charges.

A brief introduction of these ratios as given one by one in this section as follows:

## (i) Total Debt to Total Equity Ratio:

The relationship between creditors fund and owners fund is a popular measure of the long term financial solvency of a firm which relationship is shown by the debtequity ratio. This ratio indicates the relative claims of borrower and owners against the firm's assets. It is also known as total debt-total equity ratio. "The total debt equity ratio indicates the relationship between the long term funds provided by creditors and those provided by the firm's owners."29 According to Van Horne, the debt to net worth ratio is computed by simply dividing total debt of the firm (excluding current liabilities) by shareholder's equity. ${ }^{30}$

The ratio is calculated by the following formula:

$$
\text { Debt Equity Ratio }=\frac{\text { Total Debt }}{\text { Total Shareholders Equity }}
$$

## (ii) Total Debt to Total Assets Ratio:

The ratio of total debt to total assets ratio significance the extent of debt financing on the total assets and measures the financial security of the outsiders. Generally, creditors prefer a low debt ratio as it provides or sufficient customer against losses in the event of liquidation. The owners, however, prefer a high debt ratio because

[^14]that signifies their earnings on the one hand enables them to maintain their concentrated control over the corporation on the other. Total debts to total assets ratio is calculated by using the following formula.

Total Debt to Total Assets Ratio $=\frac{\text { Total Debts }}{\text { Total Assets }}$

## (iii) Interest Coverage Ratio:

A ratio between earning before interest and tax and interest is known as interest coverage ratio. It measures the debt servicing capacity of a firm. It is also known as times-interest-earned ratio. It is calculated in following ways.

Interest Coverage Ratio $=\frac{\text { Earning Before Interest and Tax }}{\text { Interest }}$

A high ratio is a sign of low burden of borrowing of a business and lower utilization of borrowing capacity. From the point of view of the creditors, the large the coverage, the greater the ability of the firm to make the payment of interest to creditors.

## (d) Profitability Ratios:

Profit is essential of service in any business field for its successful operation and future expansion and growth, profitability is a measure of efficiency. ${ }^{31}$ The ratio measures managements overall effectiveness as the returns generated on investment. It is also a control measure of the earning power of a firm as well as operating efficiently. Profitability ratios are designed to provide answer to such as is the profit earned by the firm adequate. What rate return does it present? What is the rate of profits in various divisions and segment of the firm? What is the

[^15]earning per share? What amount was paid in dividend? What is the rate of return to equity holders? And so on. ${ }^{32}$,

The profitability ratios are calculated to measure the operating efficiency of a company, besides management of the company, creditors and owners are also interested in the profitability of the firm. Creditors what to get interest and repayment of principle regularly. And owners to get a reasonable return on their instrument. Profitability ratios used are as follows:

## (i) Return on Total Assets Ratio:

A ratio between net profits to assets is known as return on total assets. It is computed by following formula.

Return on Total Assets Ratio $=\frac{\text { Total Net Profit After Tax }}{\text { Total Assets }}$

This ratio measures the profitability of all financial resources invested in the firm's assets. Hence, the higher ratio implies that the available source and tools are employed efficiently and vice-versa.

## (ii) Return on Shareholders Equity Ratio:

Return on shareholder equity is ratio, which measure the return of owner's funds. The ratio indicates how well the firm has used the resources of owners. It is also called return on equity and return on proprietors' fund. It calculated by dividing earning available to common shareholder's equity. The statement can be express as the following formula.

Return on Shareholders Equity Ratio $=\frac{\text { Total NPAT }}{\text { Total Shareholders Eqiuty }}$

[^16]
## (iii) Return on Capital Employed Ratio (ROCE):

Profit depends upon the total capital employed means that use of long-term funds supplied by creditors of the firm. Hence, return means NPAT and capital employed, i.e. paid up capital reserves and surplus and long-term deposits return or capital employed is the relationship between net profits after taxes to total capital employed. The ratio measures the overall effectiveness of management in producing profits from using the total capital. It can be calculated by dividing net profit after tax by total capital employed.

## ROCE $=\frac{\text { Total NPAT }}{\text { Total Capital Employed }}$

This ratio is most important ratio because it reflects the overall efficiency tool for making capital budgeting decision. Higher the ratio is favourable to the firm and vice-versa.

## (iv) Return on Total Deposit Ratio:

The net profit to total deposit enables to evaluate what extent the management has been able to mobilize and utilize the deposits furthermore of assist to identify overall performance as well as its success is generating profit. It is a must to analyze this ratio in order to operating management for the institution is well efficient or not in mobilizing, it's total deposits so that correction action could be forwarded. The net profit total deposit ratio can be calculated by using the following formula.

Return on Total Deposit Ratio $=\frac{\text { Total NPAT }}{\text { Total Deposits }}$

## (v) Interest Earned to Total Assets Radio:

Interest earned to total assets ratio measures the percentage of interest earned in relation to total assets of the banks. The ratio signifies the mobilization of its assets in interest generating purpose.

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

A high ratio reflects the better efficiency in utilizing the resources in interest generating sectors and vice-versa.

## (e) Invest ability Ratio:

Investors contemplating to invest insure of a bank would be taken to know the investment potentiality of the bank before taking final decision. Analysis of invest ability of the bank. Under this topic, the following ratios are calculated.

## (i) Earning Per Share (EPS) :

Shareholders are concern about the earnings that will eventually be available to pay them dividends of that are used to expand their interest in the firm because the firm retains the earning per share is calculated by dividing net income available to the common shareholders by the total number of common share outstanding.

$$
\text { Earning Per Share }=\frac{\text { Total NPAT }}{\text { Total no. of Outstanding Common Share }}
$$

## (ii) Dividend per Share (DPS):

Dividend Per Share is evaluated to know percentage of the dividend that the shareholders receive in relation to the paid up value of shares. Dividends per share that portion of net profit which is allocated to shareholders as their return in terms of cash usually shareholders expect high percentage of dividend. The earning per
share implies what the owners are theoretical entitled to net from company. DPS is that portion of earning after tax that cash amount is allocated to shareholders dividend by total no. of ordinary share outstanding.

Dividend Per Share $=\frac{\text { Total Dividend Paid to Shareholder Equity }}{\text { Total no. of Outstanding Commen Share }}$

## (iii) Dividend Payout Ratio (DPR):

A ratio between dividends per share (DPS) to earning per share (EPS) is known as dividend payout ratio. It can be computed by the following formula.

Dividend Payout Ratio $=\frac{\text { Dividend Per Share }}{\text { Earning Per Share }}$

## (f) Other Ratios:

The other ratios can be calculated the following ratios:

## (i) Total Interest Expenses to Total Interest Income Ratio:

This ratio measures the percentage to total expenses against total interest income. This ratio is calculated by dividing total interest expenses by total income.

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

## (ii) Commission and Discount to Total Income Ratio:

This ratio reflects the proportion of commission and discount earned on total income. Thus, it is calculated by dividing income from commission and discount to total income of banks. This ratio is calculated the following formula:

Commission and Discount to Total Income Ratio $=\frac{\text { Total Commission and Discount }}{\text { Total Interest Income }}$

## (iii) Staff Expenses to Total Income Ratio:

The ratio measures the percentage of staff expenses against total income of bank. It is calculated by dividing staff expenses by total income.

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

## (iv) Exchange Gain to Total Income Ratio:

In profit and loss account of the company, there are so many items in debt and credit side. In this analysis, here we specially concerned with in what percentage of operating income/profit and operating expenses that are computed to find out how much percentage of operating income and expenditure are made in two commercial banks.

### 2.2 Review Some Related Research Studies:

This evaluate and interpret the significance of finding literature relating to financial performance of commercial banks are review.

Mr. Parajuli conducted a study about, "A comparative study of the financial performance of joint venture banks, comparatively study Nepal Grindlays Bank Ltd. and Nepal Arab Bank Ltd." The objectives of this study to examine relative financial performance of banks and to evaluate financial performance of banks and effectiveness of monitoring and collecting policies of banks this major findings are analysis of liquidity ratio. The liquidity position is relating higher in case of Nabil is relatively more significant in meeting its short term obligations. Total deposits ratio is more in Nabil through out the study period than NGBL. In the study mobilize to deposits, loans and advances to fixed deposit ratio and DP and DPR of NGBL is higher than of Nabil in an average.

Profitability ratio which measure the bank's capacity of earn the means of substance are different in these two banks during the study time, MBL has better result in respect of net profit to total assets ratio, profit to total deposit return, net worth, return on assets and ROSE than Nabil. But Nabil has better performance that NGBL may have bright future than that of Nabil because it is quite significant in generating the means of subsistence., ${ }^{33}$

Mr. Joshi in his thesis entitled, 'A Study of Financial Performance of Commercial Banks,' found satisfactory liquidity position of commercial bank high leverage in compares to joint venture banks. They were found adopting conservative credit policy so main sources of income. The profit performance of NBL was better than NGBL. ${ }^{34}$

Another research study conducted by Gurung on, 'A Financial Study of NGBL and NIBL,' This study has settled such objective analyze financial position of bank to measure their various ratios in both banks have efficient in utilizing their total assets, through NIBL has out performed in this regard profitability record of both banks have registered an increasing trend. The interest coverage ratios of banks reflect the high profitability of these leading to ultimate threat to the solving of banks. The liquidity profitability and dividend payout ratio of two banks seem to be favourable. Theses represent the strengths and decreasing trend of profit on deposit, the weak aspect of banks as compared with NGBL to NIBL seems to be slightly better in term of liquidity profitability and capital structure. It is thus evidence from the analysis that NIBL promises a better than NGBL. ${ }^{35}$

Acharya's study entitled, 'A C omparative Study of Financial Performance of J oint Venture Banks in Nepal, especially Nepal SBI Bank Ltd. and Nepal Indosuez Bank

[^17]Ltd.' concludes that the liquidity position of the banks is below the normal standards of 2:1 (i.e. unsatisfactory). Comparatively this ratio of NIBL is better on an average. Both the banks are found to be efficient in utilizing most of their total assets. ${ }^{36}$

A Study Concluded by Poudel, 'A Comparative Analysis of Financial Performance between Nepal Bank Limited and Nepal Grindlays Bank Limited.' Concludes that the deposit growth of NBL is not consistent. Through they are better off in resource mobilization, they are not much efficient in credit expansion. Comparatively Bank deposit and credit expansion policy is better than NBL. ${ }^{37}$

Prajuli conducted a study about, 'A Comparative Study of Financial Performance of J oint Venture Banks,' . The main findings is that liquidity position of Nabil is more than Grindlays Bank Limited. Mobilization of deposits, loans and advances to fixed deposit ratio and DPS and DPR of NGBL are higher than of Nabil on average. ${ }^{38}$

Adhikari in his thesis entitled, 'Evaluating the Financial Performance of Nepal Bank Limited' concludes as follows:
'Nepal Bank Limited has not been able to utilize resources efficiently. The overall financial performance of the bank is unsatisfactory in fact nothing is satisfactory expect its liquidity position. ${ }^{39}$

A study concluded by Joshi, entitled 'Lending Policy of Commercial Bank in Nepal' has been concluded as follows:

[^18]'It is well known that commercial banks collect much resource from public but they are far behind in their utilization. Commercial banks in Nepal are still lazy to play an active role to utilize their resources collected from different sectors in accordance with the need of economy. ${ }^{40}$

### 2.3 Review of Related Articles

A numbers of articles and research have been published about commercial banks and JVBs but have some related article mention.

Bista in his article 'Nepal ma Adhunik Banking Byabastha' has made an attempt, to highlight some of the important factors, which have contributed to the efficiency and performance of joint venture banks. He concluded that the establishment of joint venture banks a decade ago marks the beginning of modern banking era in Nepal. New banking techniques have been introduced such as computerization and modern based activities into the economy. ${ }^{41}$

Shrestha indicated in his article 'Commercial Banks: Comparative Performance and Evaluation,' concludes that JVBs are new, operationally more efficient having superior performance compared to local banks. Superior performance of JVBs is due to their sophisticated technology, modern banking methods and skills. Their better performance is also due to the government's branching policy in rural areas. Despite having a number of deficiencies in local banks thus have to fase growing constraints of socio-economic political system on the one hand, and that of issue

[^19]and challenges of JVBs commanding significant banking business on the other spectrum. ${ }^{42}$

Bajracharya in his article, 'Rastriya Banijya Bank, 'A Comparative Performance Study,' Conclude that deposit growth at commercial banks is not consistent indigenous banks and better in mobilize, but they are not much efficient in credit expansion credit deposit ratio is better in JVBs. Non-performing loan is greater in designer are forced to open and continue their branches at the rural areas but the JVBs are reluctant but ready to pay fines for not doing so. ${ }^{43}$

An article by Rimal, 'Policy issues and development in Nepalese banking system,' concludes that the central bank should instead drive for an approach towards indirect monetary control rather than loan on quantitative individual bank selling. Indirect monetary bill quotations and operative up of inter bank market and targeting brand financial variables like net foreign assets or for that matter, net domestic assets should even out small irritants in the banking system. Small irritants it might seen, but its implications have been broad and fairly wide, as we have been in forms of reluctance on the part of commercial bank in accepting is bread and basket, i.e. deposit and in the development of additional does of productive capital. ${ }^{44}$

Chopra in his article, 'Role of Foreign Banks in Nepal.' Concludes that JVBs are already playing in increasing dynamic and vital role in the economic development of the country. This wills undoable increase with time. ${ }^{45}$

There is high competition between commercial banks. Due to competition, the interest rate is decreasing and expenses of interest is increasing. There are enough

[^20]funds in stock. What is the impact on commercial banks performance? What is the financial performance of Nabil an Nepal SBI Bank Ltd.? What types of problems they are facing? To obtain answer to these questions from this study has been undertaken. Therefore, a comparative study on financial performance of Nepal Arab Bank Limited and Nepal SBI Banks has been selected.

## CHAPTER - III

## RESEARCH METHODOLOGY

A brief introduction and objective of this study has been stated in the first chapter 'Introduction the detailed research methodology used are highlighted in this chapter.' The research methodology is the process of arriving to the solution of the problem through planned and systematic dealing with the collection, analysis and interpretation of fact and figure. Research is a systematic method of finding out solution to a problem whereas research methodology refers to the various sequential steps to adopt by a researcher in studying a problem with certain objective in view. ${ }^{46}$ It tries to make clear view of method and process adopted in the entire aspect of the study. It is known as a path from which we can systematically solve the research problem.

### 3.1 Research Design:

The first step of the study is to collect necessary information and data concerning the Nepal Arab Bank Limited and Nepal SBI Bank Limited. The task will be fulfilled by the collection of secondary data and various published information regarding this context, especially balance sheet and other reports published so far will be used for the study. In this study analytical type of research design will be

[^21]followed. Analytical research design is used for clearing the situation on the basis of presented data and facts. Further judgemental sampling is followed in order to choose Nabil Bank and Nepal SBI Bank Ltd. among the available joint venture commercial banks in Nepal. Moreover, the selection of Nabil and Nepal SBI Bank are also based on the advice of experts of relevant fields, guide and own interest. The data is carefully studied and analyzed systematically under specific major reading so as to meet the objective of the study. On the other hand, the objective of the study, the accumulated data is explored and tabulated systematically.

### 3.2 Data Gathering Procedure:

Secondary data are directly obtained from various source mentioned above specially to obtain the data from official records of the related banks. The researcher visits the banks frequently and gets the related data from the record. All the gathered data have been used according to the need and requirement of this study also; it may mention that the primary data will be used. Graphical figure will be used to indicate the financial performance of Nabil and Nepal SBI Bank more closely.

### 3.3 Sources of Data:

This research is mainly based on the secondary data which include the annual reports of the two banks under the study.

Annual reports of banks.
Financial statement of banks.
Unpublished official records.
Other published materials.
Magazines, News Paper and Other relevant data regarding the financial performance and practice of the banks.

### 3.4 Population and Sample:

The list of licensed commercial banks in Nepal is as follows:
(1) Nepal Bank Limited
(2). Rastriya Banijya Bank.
(3) Nabil Bank Limited.
(4) Nepal Investment Bank Limited.
(5) Standard Chartered Bank Limited.
(6) Himalayan Bank Limited.
(7) Nepal SBI Bank Limited.
(8) Everest Bank Limited.
(9) Nepal Bangladesh Bank Limited.
(10) Bank of Kathmandu.
(11) Nepal Credit and Commercial Bank Limited.
(12) Lumbini Bank Limited.
(13) Machapuchhre Bank Limited.
(14) Kumari Bank Limited.
(15) Laxmi Bank Limited.
(16) Siddharth Bank Limited.
(17) Global Bank Ltd.
(18) Bank Of Asia Nepal Ltd.
(18) Citizen Bank Ltd.

For this study, Nabil Bank and Nepal SBI Bank, only two commercial banks are selected.:
(i) Nabil Bank Limited.
(2) Nepal SBI Bank Limited.

### 3.5 Methods of Data Analysis:

The study employs various financial and statistical tools to analyze the data collected from various sources. The analysis is divided in two parts.

### 3.5.1 Financial Tools:

Among the different financial tools, the following ratio analysis tools have been used.
a) Liquidity Ratio
b) Activity Ratio
c) Profitability Ratio
d) Capital Structure/Leverage Ratio
e) Inevitability Ratio
f) Other Ratio

### 3.5.2 Statistical Tools:

The following simple statistical tools selected for the comparative financial study of Nabil and Nepal SBI Bank is as follows:

## (i) Arithmetic Mean ( $\overline{\mathrm{X}}$ )

Arithmetic mean of a given set of observations is their sum divided by the number of observations. In general $x_{1}+x_{2} \ldots \ldots+X_{n}$ are the given in observations, then arithmetic mean usually denoted by $\bar{X}$ is given by:
$\overline{\mathrm{X}}=\frac{X_{1}+X_{2}+\ldots \ldots \ldots \ldots X_{n}}{n}$

## (ii) Standard Deviation:

Standard deviation usually denoted by the letters $\sigma$ (small sigma) of the Greek letter, it is defined as the positive square root of the arithmetic mean of the square of the deviation of the given observation for their arithmetic mean.
$S . D .=\sqrt{\frac{\sum X^{2}}{n}}-\frac{\left(\sum X\right)^{2}}{n}$

## (iii) The Coefficient of Variation (C.V.)

The coefficient of variation (C.V.) is the relative measure of dispersion. Comparable across distribution, which is defined as the ratio of the standard deviation to mean express in percent. In symbol,

$$
C . V .=\frac{S . D .}{\bar{X}} \times 100
$$

## (iv) Karl Pearson's Coefficient of Correlation (r)

Karl Pearson's Coefficient of Correlation is most widely used in practice. The Karl Pearson's Coefficient of Correlation is devoted by the symbol ' $r$ ' it measures the relationship between two variables. In the present context, the coefficient of correlation is calculated in order to examine the relation between debt \& return, advance and total deposit, cash \& bank balance and current liabilities and loan \& advance and net profit of two commercial banks. The formula for computing ' $r$ ' is:
$r=\frac{\sum x y}{\sqrt{\sum x^{2}} \sqrt{\sum y^{2}}}$

Where, $\mathrm{x}=\mathrm{X}-\bar{X}$ and $\mathrm{y}=\mathrm{Y}-\bar{Y}$
Interpretation of Correlation Coefficient:

- The coefficient of correlation as obtained by the above formula shall always lies between $\pm 1$
- When ' $r$ ' is +1 , there is perfect positive correlation between the variables.
- When ' $r$ ' is -1 , there is prefect negative correlation between the variables.
- When ' $r$ ' is between 0.70 to 0.99 , there is high degree of correlation between the variables.
- When ' $r$ ' is less than 0.50 , there is low degree of correlation between the variables.
- When ' $r$ ' is zero, there is no correlation between the variables.


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

After computing the value of correlation coefficient, the next step is to find the extent to which it is ddependable; probable error of correlation coefficient, usually denoted by P.E (r) is an old measure of testing the reliability of an observed value of correlation coefficient.

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

## CHAPTER - IV

## PRESENTATION AND ANALYSIS OF DATA

In the present chapter, comparative analysis of related commercial banks has been done by research methodology. To solve the purpose of my study, presentation, analysis and interpretation of data will be performed by employing various tools and techniques relevant ratios such as liquidity ratios, capital structure ratios, activity ratios, profitability ratios and other ratios and tabulation, charts and graph have been analyzed as follows:

### 4.1 Liquidity Ratios:

Satisfactory liquidity position is one of the distinguishing characteristics of a sound banking system. As a critical factor of evaluation liquidity is the ability of bank to satisfy the credit needs of community, to meet demands for deposits and deposits substitutes, to oblige maturing obligation on time without loss to the bank and without unfavourable impact on longer projection on profitability.

### 4.1.1 Current Ratio

Current ratio indicates the degree of short-term solvency and the strength of a firm. A high current ratio indicates efficiency to meet short-term obligation and excessive in investment in current assets and vice-versa. Current ratio is computed as dividing current assets by current liabilities:

The current ratio is the most commonly employed ratio for carrying out short-term solvency. Since, it shows the limit to which assets that are expected to be converted into cash within a year cover the claims of short-term creditors. A high current ratio indicates excessive investment in current assets leading to low utilization of firm's resources and hence low profitability. On the other hand, a low current ratio indicates that firm may not be able to meet its short-term obligation, hence the low margin of safety that may lead to loss of goods will current ratio $2: 1$ is assumed to be an appropriate ratio. The following table we have presented in data relating to the current ratio of two commercial banks.

Table 4.1: Current Ratio of Nabil and Nepal SBI Bank Ltd. (in times)
(Rs in Million)

| Fiscal Year | Nabil |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Current <br> Assets | Current <br> Liabilities | Ratio | Current <br> Assets | Current <br> Liabilities | Ratio |
| $2000 / 01$ | 18432.04 | 17226.21 | 1.07 | 7395.822 | 7043.64 | 1.05 |
| $2001 / 02$ | 17471.8 | 16482.83 | 1.06 | 6783.83 | 6460.79 | 1.05 |
| $2002 / 03$ | 16163.35 | 15248.44 | 1.06 | 7136.399 | 6996.47 | 01.02 |


| $2003 / 04$ | 11600.49 | 15263.80 | 0.76 | 7891.908 | 7813.77 | 1.01 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2004 / 05$ | 16520.3 | 15733.62 | 1.05 | 8775.423 | 8201.33 | 1.07 |
| $2005 / 06$ | 17625.51 | 16472.44 | 1.07 | 10235.2 | 9565.61 | 1.07 |
| $2006 / 07$ | 18875.8 | 17640.93 | 1.07 | 10927.77 | 10212.87 | 1.07 |
| Mean (解) |  |  | 1.02 |  |  | 1.05 |
| S.D. |  |  | 0.106 |  |  | 0.023 |
| C.V |  |  | $10.39 \%$ |  |  | $19 \%$ |

Source: Annual Report of Nabil and NSBIBL

The above table shows that the liquidity position or current ratio of Nabil and NSBIBL for the year 2000/01 to 2006/07. While focusing on the data presented in the above table, the average current ratio of Nabil and NSBIBL is more constant except the year 2004/05.

The overall ratio of the Nabil and NSBIBL is not satisfactory as it never been in $2: 1$ position during the study period.

During the study period, the current ratio of Nabil varies from maximum 1.07 to minimum 0.76 with its average ratio of 1.018 . While comparing the standard, Nabil could not meet the average standard ratio during the study period.

Generally, current ratios where fluctuating in constant way of NSBIBL, it means current assets and current liabilities were handled in same way. The average ratio of this bank is 1.07 which is the below of standard.

The standard deviation of two banks are 0.169 (Nabil) and 0.082 (NSBIBL) and coefficient of variation are $16.60 \%$ ( Nabil) and 7.66 \% ( NSBIBL). Comparatively NSBIBL is better than Nabil because of lower standard deviation and C.V.
(Appendix 1).

### 4.1.2 Cash and Bank Balance to Current Deposit Ratio:

Cash and bank balance to current deposit ratio measures the banks ability in paying that to current depositors as well as other depositors. Current depositors must be paid whenever they demand their deposits. If it is not paid on their demand, it will have the advance negative impact on the bank's reputation. For keeping there professional reputation and duty the institution are expects to maintain the ratio. It is calculated the following formula:

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

The following table shows the capacity to discharge calls current deposit.

Table 4.2: Cash and Bank Balance to Current Deposit Ratio (in percentage)
(Rs in Million)

| Fiscal Year | Nabil |  |  |  |  |  |  |  | NSBIBL |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: |
|  | Total <br> Bank <br> Balance | Current <br> Deposits | Ratio \% | Total <br> Bank <br> Balance | Current <br> Deposits | Ratio\% |  |  |  |  |  |
| $2000 / 01$ | 1153.75 | 2274.79 | 50.72 | 741.56 | 761.68 | 99.98 |  |  |  |  |  |
| $2001 / 02$ | 630.94 | 2327.08 | 27.11 | 1357.80 | 1426.37 | 95.19 |  |  |  |  |  |
| $2002 / 03$ | 1088.75 | 2880.65 | 37.79 | 890.02 | 951.00 | 93.58 |  |  |  |  |  |
| $2003 / 04$ | 812.90 | 2850.97 | 28.51 | 1945.14 | 2359.99 | 82.42 |  |  |  |  |  |
| $2004 / 05$ | 1051.81 | 2703.81 | 38.90 | 1619.96 | 1086.69 | 149.07 |  |  |  |  |  |
| $2005 / 06$ | 1144.77 | 3034.01 | 37.73 | 1333.53 | 1300.07 | 102.57 |  |  |  |  |  |
| $2006 / 07$ | 970.49 | 2668.97 | 36.09 | 864.43 | 1672.68 | 51.68 |  |  |  |  |  |
| Mean ( $\overline{\mathrm{X}}$ ) |  |  | 36.09 |  |  | 96.36 |  |  |  |  |  |
| S.D |  |  | 7.20 |  |  | 26.81 |  |  |  |  |  |
| C.V |  |  | $19.62 \%$ |  |  | $27.82 \%$ |  |  |  |  |  |

Source: Annual Report of Nabil and NSBIBL

Above table shows that the cash and bank balance to current deposits of two banks. Generally, this ratio shows about the ability of cash payment when depositors demand the funds.

Cash and bank balance percentage of Nabil fluctuated over the study period. It is highest ( $50.72 \%$ ) in the year 2000/01 and lowest ( $28.51 \%$ ) in the year 2003/04. The average cash and bank balance is $36.09 \%$.

Similarly, the cash and bank balance percentage of also fluctuating over the study period. It is highest $(149.07 \%)$ in the year $2003 / 04$ and lowest $(93.58 \%)$ in the year 2002/03. The average cash and bank balance percentage of NSBIBL is $96.36 \%$. The study shows that average cash and bank balance percentage of NSBIBL (96.36\%) is higher than Nabil (36.09\%).

The standard deviation of Nabil is 7.20 whereas it is 26.81 of NSBIBL. Hence it shows NSBIBL has higher risk factor than of Nabil likewise, coefficient of variation is $19.62 \%$ for Nabil and $27.82 \%$ for NSBIBL, indicating more variation in cash and bank balance maintained in NSBIBL compared to Nabil (Appendix 2).

### 4.1.3 Cash and Bank Balance to Total Deposit (excluding fixed deposit)

This ratio measures the availability of a bank's highly liquid funds to meet its unanticipated calls on current, saving, call, deposits and other deposits. This ratio indicates the ability of bank's immediate funds to cover their current margin, calls and other saving deposits.

A high ratio represents the greater ability to cover their deposits (excluding fixed) and vice-versa, a higher ratio is advantageous as it provides cushion for fixed deposits. However, too high ratio is disadvantageous as capital is tied up in the unproductive assets. This ratio is calculated by following formula:

Cash and Bank Balance to Total Deposits $=\frac{\text { Total Cash/Bank Balance }}{\text { Total Deposits }}$

The following table exhibits cash and bank balance to total deposits (excluding fixed deposit) ratio of two banks.

Table 4.3: Cash and Bank Balance to Total Deposits Ratio (in percentage)
(Rupees in million)

| Fiscal Year | Nabil |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total <br> Cash/Ban <br> k Balance | Total <br> Deposits | Ratio\% | Total <br> Cash/Bank <br> Balance | Total <br> Deposit <br> s | Ratio <br> $\%$ |
| $2000 / 01$ | 1153.75 | 5078.45 | 22.71 | 741.56 | 1360.88 | 55.96 |
| $2001 / 02$ | 630.94 | 6044.00 | 10.43 | 1357.80 | 2279.80 | 59.55 |
| $2002 / 03$ | 1088.75 | 7501.24 | 14.51 | 890.02 | 2115.43 | 42.07 |
| $2003 / 04$ | 812.90 | 8171.47 | 9.94 | 1945.14 | 3682.94 | 52.81 |
| $2004 / 05$ | 1051.81 | 13059.58 | 8.05 | 1619.96 | 2439.79 | 66.39 |
| $2005 / 06$ | 1144.77 | 11195.12 | 10.23 | 1333.53 | 3185.24 | 41.87 |
| $2006 / 07$ | 970.49 | 11808.46 | 8.22 | 864.43 | 3846.06 | 22.50 |
| Mean (X) |  |  | 12.01 |  |  | 48.74 |
| S.D |  |  | 4.79 |  |  | 13.47 |
| C.V |  |  | $39.88 \%$ |  |  | $27.64 \%$ |

Source: Annual Report of Nabil and NSBIBL

Above table indicate that cash and banks balance to total deposit ratios relation of Nabil and NSBIBL. Cash and bank balance to total deposit ratio of Nabil is fluctuated over the study period. It is highest (22.71\%) in the year 2000/01 and lowest $(8.06 \%)$ in the year $2004 / 05$. the average ratio of Nabil is $12.01 \%$.

The yearly cash and bank balance to total deposit ratio of NSBIBL also fluctuated over the study period. It is highest (59.55\%) in the year 2002/03 and lowest (22.50\%) in the year 2006/07. The average cash and bank balance to total deposit
percentage is $48.74 \%$. The study shows that average cash and bank balance percentage of NSBIBL ( $48.74 \%$ ) is higher than that of Nabil (i.e. 12.01\%).

Similarly, the standard deviation of Nabil is $4.79 \%$ where as it is 13.47 of NSBIBL. Hence it shows that Nabil has higher risk factor than of Nabil. Likewise, coefficient of variation of Nabil is $39.88 \%$ and $27.64 \%$ of NSBIBL, indicates that more variation in cash and bank balance maintained in Nabil compared to NSBIBL.

At last, cash and bank balance should be appropriate in the banks. Express cash/bank balance is not good for healthy bank. It must be needed but not excess. Nabil try to maintain appropriate ratio than NSBIBL. There is no standard ratio in this aspect. It all depends upon the bank's experiences and other various factors. (Appendix 3).

### 4.2 Activity Ratios

Activity ratios are the indicators of a concern with regard to its efficiency in assets management or successful in mobilizing total deposits on investment. In their section, some of the activity ratios are calculated to assets banks efficiency in utilizing available resources.

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

Total ratio measures the extent to which the banks are successful in mobilizing them for the purpose of profit generation. A high ratio represents the greater efficiency to utilize funds provided by outsiders (i.e. ratio is computing by dividing loan and advances by total deposits).

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

Total loan and advances to total deposit ratio of the two banks have been tabulated below:

Table 4.4: Loan and Advances to Total Deposit Ratio (in percentage)
(Rs in Million)

| Fiscal Year | Nabil |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total <br>  <br> Advances | Total <br> Deposits | Ratio\% | Total <br>  <br> Advances | Total <br> Deposits | Ratio\% |
| $2000 / 01$ | 5224.07 | 8737.76 | 59.78 | 2363.56 | 3744.50 | 63.12 |
| $2001 / 02$ | 5788.93 | 9464.28 | 61.16 | 2963.03 | 4380.02 | 67.64 |
| $2002 / 03$ | 7334.76 | 12779.51 | 57.39 | 3559.41 | 4535.73 | 78.47 |
| $2003 / 04$ | 8324.44 | 15839.01 | 52.55 | 4188.41 | 6612.29 | 63.34 |
| $2004 / 05$ | 7437.89 | 15506.42 | 47.96 | 4584.39 | 5572.47 | 82.26 |
| $2005 / 05$ | 8113.68 | 13447.66 | 60.34 | 4795.84 | 6522.82 | 73.52 |
| $2006 / 06$ | 8548.66 | 14119.03 | 60.55 | 5531.83 | 7198.33 | 76.85 |
| Mean (X) |  |  | 57.10 |  |  | 72.17 |
| S.D |  |  | 4.64 |  |  | 7.03 |
| C.V |  |  | $8.13 \%$ |  |  | $9.74 \%$ |

Source: Annual Report of Nabil and NSBIBL

Above table shows that the total loans and advances and total deposit position of Nabil and NSBIBL. If the ratio is high the bank can efficiently handle resources.

Ratios of Nabil in last seven years are 59.78, 61.16, 57.39, 52.55, 47.96, 60.34 and 60.55. The trends of ratios are slightly fluctuating. The highest ratio is $61.16 \%$ in the year 1998/99 and lowest ratio is 47.96 in 2001/02. The average ratio, standard deviation and coefficient of variation of Nabil are 57.10\%, 4.64 and $8.13 \%$ respectively.

Similarly, the ratios of NSBIBL in the last seven years are 63.12, 67.64, 78.47, $63.34,82.26,73.52$ and 76.85 are shown in fluctuating way. The highest ratio is 82.26 in 2001/02 and lowest ratio is 63.12 in 1997/98. The average ratio, standard deviation and coefficient of variation (C.V.) of NSBIBL are 72.17, 7.03 and 9.74 respectively.

In comparison, Nabil is better than NBBIBL because of low standard deviation and coefficient of variation. (Appendix 4)

### 4.2.2 Total Loan and Advances to Total Fixed Deposit Ratio

This ratio indicates, how much of loan and advances is granted against fixed deposit, fixed deposit advances to fixed deposit properly. Loans and advances to fixed deposit ratio indicates how properly the fixed deposits is utilized. A high ratio indicates greater flow of loans and advances. The following formula will help to calculate this ratio:

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

The following table displays the ratio of loans and advances to fixed deposits.

Table 4.5: Loans and Advances to Total Fixed Deposit Ratio (in Percentage)
(Rs, in million)

| Fiscal Year | Nabil |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total <br>  <br> Advances | Total <br> Fixed <br> Deposit | Ratio | Total <br>  <br> Advances | Total <br> Fixed <br> Deposit | Ratio |
| 2000/01 | 5224.07 | 3659.31 | 142.76 | 2363.56 | 2383.62 | 299.15 |
| $2001 / 02$ | 5788.93 | 3420.28 | 169.25 | 2963.03 | 2100.00 | 141.08 |
| $2002 / 03$ | 7334.76 | 5278.27 | 138.96 | 3569.41 | 2420.30 | 147.06 |
| $2003 / 04$ | 8324.44 | 7667.54 | 108.56 | 4188.41 | 2929.35 | 142.98 |
| $2004 / 05$ | 7437.89 | 2446.00 | 303.97 | 4584.39 | 3132.67 | 146.34 |
| $2005 / 06$ | 8113.68 | 2225.54 | 360.20 | 4795.84 | 3337.57 | 143.69 |
| $2006 / 07$ | 8548.66 | 2310.57 | 369.98 | 5531.83 | 3352.27 | 165.02 |
| Mean ( $\overline{\mathrm{X}})$ |  |  | 227.67 |  |  | 169.33 |
| S.D |  |  | 104.42 |  |  | 53.51 |
| C.V |  |  | $45.86 \%$ |  |  | $31.60 \%$ |

Source: Annual Report of Nabil and NSBIBL.

Above table depicts that the loan and advances to fixed deposit ratio of Nabil is fluctuating for the study period. It is highest $369.98 \%$ in year 2006/07 and lowest in the year 2001/02 142.76\%. The average ratio of Nabil is $227.67 \%$.

Similarly, the yearly ratio of NSBIBL are also fluctuating. The highest ratio is $299.15 \%$ in the year 2000/01 and lowest ratio is $141.08 \%$ in te year 2001/02. The average ratio is $169.33 \%$ which is lower than its yearly ratio of 2000/01 and higher than after 2000/01. The average ratio of NSBIBL is $169.33 \%$ lower than Nabil (227.67\%).

The standard deviation is 104.42 for Nabil whereas it is 53.51 for NSBIBL. Similarly, coefficient of variation are $45.86 \%$ and $31.60 \%$ of Nabil and NSBIBL respectively. Thus C.V. of Nabil is higher than NSBIBL. This shows that there are more variation in loan and advances to fixed deposit ratio maintained by Nabil compared to NSBIBL. In other words, Nabil has high risk in it. The above analysis helps to conclude that loan and advances to total deposit ratio of NSBIBL is better than Nabil. Because of lower amount of fixed deposit, the ratio become higher. The ratio implies that NSBIBL is utilizing its fixed deposit in loan and advances more efficiently. Higher C.V. in Nabil compared to NSBIBL, shows that the variability is more in loan and advance to fixed deposit ratio of Nabil. (Appendix 5).

### 4.2.3 Total Loan and Advances to Total Saving Deposit Ratio:

Total loans and advances to saving deposit ratio indicate about what proportion of total saving deposit is employed in loans and advances. Saving deposit is also an interest payable fund. So, the bank must earn so many interest from investment as required to pay the interest on such deposits. Loan and advances to saving deposit ratio measures what proportion of saving deposit is utilized to invest in loans and advances. High ratio indicates saving deposits amount mobilize effectively. It is calculating with the help of following formula.

Total Loan and Advances to Saving Deposit Ratio $=\frac{\text { Total Loan and Advances }}{\text { Total Saving Deposit }}$ The following table shows the ratio of loans and advances to saving deposit of two banks.

Table 4.6 :Loan and Advances to Total Saving Deposit Ratio (In Percentage)
(Rs in Million)

| Fiscal Year | Nabil |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total <br>  <br> Advanc <br> es | Total <br> Saving <br> Deposit | Ratio | Total <br>  | Total <br> Saving <br> Advances <br> Deposit | Ratio |
|  | 5224.07 | 2546.79 | 251.23 | 2363.56 | 527.24 | 448.28 |
| $2001 / 02$ | 5788.93 | 3352.62 | 172.66 | 2963.03 | 786.76 | 376.63 |
| $2002 / 03$ | 7334.76 | 4150.19 | 176.73 | 3559.41 | 902.76 | 344.28 |
| $2003 / 04$ | 8324.44 | 4917.14 | 169.29 | 4188.41 | 1060.15 | 395.07 |
| $2004 / 05$ | 7437.89 | 4972.05 | 149.59 | 4584.39 | 1274.69 | 359.64 |
| $2005 / 06$ | 8113.68 | 5229.72 | 155.15 | 4795.84 | 1633.03 | 293.68 |
| $2006 / 07$ | 8548.66 | 5994.12 | 142.62 | 5531.83 | 2043.02 | 270.77 |
| Mean ( $\overline{\text { X })}$ |  |  | 173.90 |  |  | 355.48 |
| S.D |  |  | 33.66 |  |  | 55.82 |
| C.V |  |  | $19.41 \%$ |  |  | $15.7 \%$ |

Source: Annual Report of Nabil and NSBIBL

Above table depicts that the loan and advances to saving deposits ratio of Nabil is fluctuating all over the years during the study period. The ratio of Nabil is highest in the years 2000/01 ( $251.23 \%$ ) and lowest in the year 2006/07 (142.62\%).The average ratio of Nabil is $173.90 \%$ during the study period. The trend of ratio is slightly decreasing direction. The standard deviation and coefficient of variation of Nabil is 33.66 and $19.41 \%$ respectively.

Similarly the ratio of NSBIBL is also decreasing for all the years. The average ratio of NSBIBL is $355.48 \%$. The highest ratio is 448.28 and the lowest ratio is
270.77. It shows that NSBIBL has fully able to handle saving amount in to loans and advances.

The coefficients of variation are $19.41 \%$ in Nabil and $1507 \%$ in NSBIBL. Thus C.V. of Nabil is higher than NSBIBL. This shows that there is more variation in loan and advances to fixed deposit ratio maintained by Nabil compared to NSBIBL. In others word Nabil has high risk in it.

From the above analysis we can conclude that the loan and advances to saving deposit of NSBIBL is better than Nabil. It implies that NSBIBL is utilizing short term fund of outsiders more efficiently than Nabil but the risk is more in Nabil than NSBIBL. (Appendix-6)

### 4.2.4 Total Investment to Total Deposit Ratio:

This ratio measure the extent which to the banks are successful in mobilizing total deposits on investment That means this ratio is affected by the concerned financial policy which is based on implementation aspect of deposits i.e., investment. This ratio is calculated by using following formula.

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

The following table shows the ratio of investment to total deposit of total deposit

Table 4.7: Total Investment to Total Deposit Ratio (in percentage)
(Rs in percentage)

| Fiscal <br> Year <br>  <br>  <br> Investment | Total <br> Deposit | Total <br> Ratio | Total <br> Investment | Total <br> Deposit | Ratio |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 944.43 | 8737.76 | 10.80 | 678.59 | 3744.50 | 18.12 |
| $2001 / 02$ | 1403.85 | 9464.28 | 14.83 | 199.58 | 4380.02 | 4.55 |
| $2002 / 03$ | 12384.21 | 15839.01 | 9.66 | 192.85 | 4535.73 | 4.25 |
| $2003 / 04$ | 2733.96 | 15506.42 | 17.26 | 364.69 | 6612.29 | 5.51 |
| $2004 / 05$ | 8199.51 | 15508.8 | 52.87 | 599.05 | 5572.47 | 10.75 |
| $2005 / 06$ | 6031.18 | 13447.66 | 44.85 | 1207.28 | 6522.82 | 18.51 |
| $2006 / 07$ | 5835.95 | 14119.03 | 60.46 | 1907.52 | 7198.33 | 26.45 |
| Mean |  |  | 30.10 |  |  | 12.59 |
| (x) |  |  |  |  |  |  |
| S.D |  |  | 16.89 |  |  | 7.98 |
| C.V |  |  | $61.73 \%$ |  |  | $63.38 \%$ |

Source: Annual report of Nabil and NSBIBL

The above table shows that the total investment to total deposit ratio of Nabil and NSBIBL is 30.10 percent and 12.59 percent. The highest ratio of Nabil is 60.46 in 2006/07 and the lowest ratio is 9.66 in 2002/03. The trend of ratio in the initial stage in increasing way middle of the study period the ratio had gone in decreasing direction and the last stage the ratio is in increasing trend .The standard deviation and C.V. of this bank are 16.89 and $61.73 \%$ respectively. It makes bank has to slightly success to total deposit in to investment .

Similarly, the average ratio of NSBIBL is 12.59 . The highest ratio is 26.45 in the year 2006/07 and lowest 4025 in the year 1999/00 .The S.D. and c.v. of NSBIBL is $7.98 \%$ and $63.38 \%$ respectively during the study period. The bank may not be able to invest own deposit fund in investment.

From the above analysis we can conclude that the Nabil is better than NSBIBL with its high average ratios as well as low standard deviation and low coefficient of variation.(Appendix-7).

### 4.3 Capital Structure / Leverage Ratio

An institution should have short term liquidity as well as long term solvency . Since the liquidity relate to shot term solvency alone capital structure been examine in this section .The capital structure highlight on long term financial health debt servicing capacity structure ratio of Nabil and NSBIBL can be measured and analysed by following ratio.

### 4.3.1 Total Debt to Total Assets Ratio

The ratio of total debts to total assets ratio signifies the extent of debt financing on the total assets and measures the financial security to the outsiders. This ratio shows that what position of capital assets is financing by outsiders funds. A high debt ratio implies a bank's success in exploiting debt to be more profitable as well as riskier capital structure. This ratio is calculated by using following formula:

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

Total debt included short-term and long-term deposits. Similarly, total assets include all the assets of right hand side of balance sheet. The debt to total assets ratio of Nabil and NSBIBL during the study period have been tabulated below.

Table 4.8: Total Debt to Total Assets Ratio (in Percentage)
(Rs in Million)

| Fiscal <br> Year | Nabil |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total <br> Debt | Total <br> Assets | Ratio | Total <br> Debt | Total <br> Assets | Ratio |
| $2000 / 01$ | 10172.78 | 11302.30 | 90 | 3851.46 | 4122.57 |  |
| $2001 / 02$ | 11306.31 | 12429.67 | 91 | 4487.74 | 4812.01 | 93 |
| $2002 / 03$ | 14014.13 | 15314.71 | 92 | 4881.63 | 5164.52 | 93 |
| $2003 / 04$ | 17304.31 | 18808.88 | 92 | 7046.25 | 7385.29 | 94 |
| $2004 / 05$ | 7437.89 | 17629.25 | 42 | 6460.80 | 7021.14 | 95 |
| $2005 / 06$ | 15248.44 | 16562.62 | 92 | 6996.47 | 7566.33 | 92 |
| $2006 / 07$ | 15263.80 | 16745.49 | 91 | 7813.77 | 8440.41 | 92 |
| Mean |  |  | 84 |  |  | 93 |
| $(\bar{X})$ |  |  |  |  |  |  |
| S.D |  |  | 17.27 |  |  | 1 |
| C.V |  |  | $20.57 \%$ |  |  | $1.08 \%$ |

Source: Annual Report of Nabil and NSBIBL

The above table shows the average ratio of Nabil is $84 \%$. The highest ratio is $92 \%$ in the year 2002/03, 2004/05 and 2005/06. The standard deviation and coefficient of variation is $17.27 \%$ and $20.57 \%$ respectively.

Similarly, the average ratio of NSBIBL is $93 \%$. The highest ratio is $95 \%$ in 2003/04 and lowest ratio is $92 \%$ in the year 2004/05 and 2005/06 respectively. The standard deviation and coefficient of variation of NSBIBL is 1 and $1.08 \%$ respectively during the study period.

The above analysis helps to conclude that total debt to total aspects ratio of NSBIBL is better than ratio became higher of NSBIBL than Nabil. Similarly, NSBIBL is low risky and low deviation, (i.e. S.D. and C.V. is lower) (Appendix 8)

### 4.3.2 Total Debt to Total Equity Ratio

This ratio measures the relative claims of outsider and owners over the firm's assets. Indicating the extent of debt financing in the firm compared to shareholders equity financing. In other words, the debt to equity ratio indicates the relative contribution of debt capital and equity capital fund of total investment. A high ratio shows the larger share of financing by the creditors as compare to that of owners, creditors prefer low debt-equity ratio is calculated by using the following formula.

Total Debt to Total Equity Ratio $=\frac{\text { Total Debt }}{\text { Total Shareholders Equity }}$

Total debt include current account, saving account, call and short deposits, overdraft, fixed deposits, loans and advances and borrowing from other banks. Shareholders equity include paid up capital, reserve and surplus and undistributed profit. The total debt to total equity ratio of Nabil and NSBIBL during the study period have been tabulated below.

Table 4.9: Total Debt to Total Equity Ratio (In times)
(Rs in Million)

| Fiscal <br> Year | Nabil |  |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total <br> Debt | Total <br> Equity | Ratio | Total <br> Debt | Total <br> Equity | Ratio |  |
| $2000 / 01$ | 10172.78 | 828.49 | 12 | 3851.46 | 262.27 | 15 |  |
| $2001 / 02$ | 11306.31 | 877.73 | 13 | 4487.74 | 321.06 | 14 |  |
| $2002 / 03$ | 14040.13 | 984.07 | 14 | 4881.63 | 224.95 | 22 |  |
| $2003 / 04$ | 17304.31 | 1062.83 | 16 | 7046.25 | 238.55 | 29 |  |
| $2004 / 05$ | 7437.89 | 1146.42 | 6 | 6460.80 | 560.34 | 11 |  |
| $2005 / 06$ | 15248.44 | 1314.19 | 12 | 6996.47 | 569.85 | 12 |  |
| $2006 / 07$ | 15263.80 | 1418.68 | 10 | 7813.77 | 626.64 | 12 |  |
| Average |  |  | 12 |  |  | 16 |  |
| S.D |  |  | 2.70 |  |  | 6.16 |  |
| C.V |  |  | $22.72 \%$ |  |  | $37.52 \%$ |  |

Source: Annual Report of Nabil and NSBIBL

Above table shows about the total debt and total equity position of Nabil and NSBIBL. The average ratio of Nabil is 12 times which is 12 times greater than total equity. Debt portion funds are maximum utilized. Higher debt portion is also risky for the banks. Appropriate ratio is better i.e. 60:40 total to total equity. The highest ratio is 16 times in 2003/04 and lowest ratio is 6 times in 2004/05. The standard deviation and coefficient of variation of Nabil is $2.70 \%$ and $22.72 \%$ respectively.

Similarly, the average ratio of NSBIBL is 16 times. The highest ratio is 29 times in 2003/04 and lowest ratio is 11 times in 2004/05. The standard deviation and coefficient of variation of NSBIBL is 6.16 and $37.52 \%$ respectively.

In comparison, Nabil has uniformity in debt to equity ratio, this bank able to handle debt ratio, in every and each year slightly changed. (Appendix 9).

### 4.3.3 Interest Coverage Ratio

This ratio reveals how many times the interest changes are covered by EBIT out of which they will be paid. High ratio may imply unused debt capacity. In contrast a low ratio is a danger signal that the firm is using excessive debt and does not have the ability to offer ensured payment of interest to the creditors from the view point of the creditor. The larger coverage ratio the greater ability of the firm to make the payment of interest to creditors.

$$
\text { Interest Coverage Ratio }=\frac{\text { EBIT }}{\text { Total Interest Exp. }}
$$

The interest coverage ratio of Nabil and NSBIBL has been tabulated below:

Table 4.10: Interest Coverage Ratio (in Times)
(Rs in Million)

| Fiscal | Nabil |  |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | EBIT | Total <br> Interest <br> exp. | Ratio | EBIT | Total <br> Interest <br> exp. | Ratio |  |
| $2000 / 01$ | 735.31 | 433.91 | 1.69 | 324.29 | 240.75 | 1.34 |  |
| $2001 / 02$ | 801.94 | 404.39 | 1.98 | 335.82 | 310.79 | 1.08 |  |
| $2002 / 03$ | 927.70 | 432.96 | 2.14 | 369.81 | 281.66 | 1.31 |  |
| $2003 / 04$ | 1051.72 | 578.30 | 1.82 | 322.12 | 271.79 | 1.18 |  |
| $2004 / 05$ | 734.37 | 462.07 | 1.59 | 345.45 | 288.57 | 1.20 |  |
| $2005 / 06$ | 932.73 | 317.35 | 2.94 | 360.87 | 291.82 | 1.24 |  |
| $2006 / 07$ | 940.02 | 282.95 | 3.32 | 365.45 | 255.92 | 1.43 |  |
| Average |  |  | 2.21 |  |  | 1.25 |  |
| S.D |  |  | 0.61 |  |  | 0.11 |  |
| C.V |  |  | $27.73 \%$ |  |  | $8.97 \%$ |  |

[^22]Above table shows the interest coverage position of Nabil and NSBIBL. The average interest coverage ratio of Nabil is 2.21 times, it indicates that EBIT is 2.21 times greater than interest. It is not satisfactory ratio. The highest coverage ratio is 3.32 times in 2006/07 and lowest ratio is 1.59 times in 2004/05. The standard deviation and coefficient of variation are 0.61 and $27.73 \%$ respectively during the study period.

Similarly, the average interest coverage ratio of NSBIBL is 1.25 times, which indicates that EBIT is 1.25 times greater than interest. It is not satisfactory. So, bank can perform profitable activities or reduce the debt portion funds. The standard deviation and coefficient of variation of NSBIBL are $0.11 \%$ and $8.97 \%$ respectively.

In comparison of two bank, Nabil is better than NSBIBL with high ratio. (Appendix 10).

### 4.4 Profitability Ratio

Profitability ratio is the measurement of efficiency. It provides the degree of success in achieving profit. Hence, profitability is measured in terms of various ratios as follows:

### 4.4.1 Return on Total Assets Ratio:

Assets management is very important because of the return on assets will rise if fewer assets are employed and all the measures of the effective management of working capital minimizing taxes within the legal options available will also improve the return. Return on total assets ratio measures the profitability with respect to the total assets. In the present study this ratio is examined to measure the profitability of all financial resources in rested of the bank assets. Return on assets is vital ratio for the measuring the financial performance. Higher ratio means better financing position as compared with other banks.

Return on Total Assets Ratio $=\frac{\text { Total NPAT }}{\text { Total Assets }}$

Table 4.11: Return on Total Assets Ratio (in percentage)
(Rs in million)

| Fiscal | Nabil |  |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Total <br> NPAT | Total <br> Assets | Ratio | Total <br> NPAT | Total <br> Assets | Ratio |  |
| $2000 / 01$ | 174.80 | 11230.90 | 1.55 | 58.98 | 4122.57 | 1.43 |  |
| $2001 / 02$ | 266.48 | 12429.67 | 2.14 | 16.77 | 4812.01 | 0.34 |  |
| $2002 / 03$ | 329.12 | 15314.74 | 2.14 | 50.07 | 5164.52 | 0.46 |  |
| $2003 / 04$ | 291.37 | 18808.88 | 1.54 | 12.51 | 7385.29 | 0.17 |  |
| $2004 / 05$ | 271.63 | 17629.25 | 1.54 | 40.84 | 7021.14 | 0.58 |  |
| $2005 / 06$ | 416.24 | 16562.62 | 2.51 | 48.75 | 7566.33 | 0.64 |  |
| $2006 / 07$ | 455.31 | 16745.49 | 2.72 | 60.85 | 8440.41 | 0.72 |  |
| Average |  |  | 2.02 |  |  | 0.62 |  |
| S.D |  |  | 0.45 |  |  | 0.37 |  |
| C.V |  |  | $22.46 \%$ |  |  | $60.18 \%$ |  |

Source: Annual Report of Nabil and NSBIBL.

The above table shows that the overall profitability ratio, that is, net profit to total assets ratio of Nabil is fluctuating during the study period. The ratio is highest $2.72 \%$ in $2006 / 07$ and lowest $1.54 \%$ in 2003/04 and 2004/05. The average ratio of Nabil is $2.02 \%$. The ratio of NSBIBL are decreasing till the year 2003/04 and then started to increase upward. The ratio is highest $1.43 \%$ in the year 2000/01 and lowest $0.17 \%$ in the 2003/04. The average ratio is $0.62 \%$.

The coefficient of variation is $22.46 \%$ of Nabil and $60.18 \%$ of NSBIBL. Thus C.V. of NSBIBL is higher than that of Nabil. This shows that there is more variation in net profit to total assets ratio maintained by variation in net profit to total assets ratio maintained by NSBIBL compared to Nabil. In other word NSBIBL has higher risk in it. (Appendix 11).

### 4.4.2 Return on Shareholder's Equity Ratio (ROSE)

Return on shareholder's fund is another effective measure of the profitability of a bank. This ratio measures the productivity of shareholders equity fund. ROSE basically by owner of the company. Return means the funds after subtraction of all expenses including tax (NPAT), Which actually belongs to the owners. ROSE reveals how well the company uses the resources of owners. ROSE is computed as following formula.

$$
\text { ROSE }=\frac{\text { Total NPAT }}{\text { Total Shareholders Equity }}
$$

Table 4.12: Return on Shareholders Equity Ratio (in percentage)
(Rs in Million)

| Fiscal <br> Year | Nabil |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Total <br> NPAT <br> Shareholders <br> Equity | Ratio | Total <br> NPAT | Total <br> Shareholders <br> Equity | Ratio |
| $2000 / 01$ | 174.80 | 828.49 | 21.09 | 58.98 | 262.27 | 22.48 |
| $2001 / 02$ | 266.48 | 877.73 | 30.36 | 16.77 | 321.06 | 5.22 |
| $2002 / 03$ | 329.12 | 984.07 | 33.44 | 50.07 | 224.95 | 22.25 |
| $2003 / 04$ | 291.37 | 1062.83 | 27.41 | 12.51 | 238.55 | 5.24 |
| $2004 / 05$ | 271.63 | 1146.42 | 23.69 | 40.84 | 560.34 | 7.28 |
| $2005 / 06$ | 416.24 | 1314.19 | 31.67 | 48.75 | 569.85 | 8.55 |
| $2006 / 07$ | 455.31 | 1481.68 | 30.73 | 60.85 | 626.64 | 9.71 |
| Average |  |  | 28.34 |  |  | 11.53 |
| S.D |  |  | 4.17 |  |  | 7.02 |
| C.V |  |  | $14.73 \%$ |  |  | $60.84 \%$ |

Source: Annual Report of Nabil and NSBIBL.
Above table shows the return on shareholder equity position. The average return on shareholder equity of Nabil is $28.34 \%$. It represents NPAT available to shareholder equity is $28.34 \%$. This return totally belongs to shareholders equity. If the ratio is high then it is beneficial to the owners. The standard deviation and coefficient of variation of Nabil is 4.17 and $14.73 \%$ respectively.

Similarly, the average return on shareholder equity of NSBIBL is $11.53 \%$, which represents the equity earned $11.53 \%$ of their capital equity. The standard deviation and coefficient of variation of NSBIBL is 7.02 and $60.84 \%$ respectively.

In comparison, Nabil is better than NSBIBL because of higher ratio of return as well as lower S.D. and C.V. (Appendix 12).

### 4.4.3 Return on Capital Employed Ratio (ROCE)

Return on capital employed ratio provides a test of profitability related to the resources of long-term funds. Profit depends upon the sources of long-term funds and total capital employed in the business. Capital employed in the business. Capital employed means the use of long-term funds supplied by creditors and owners of the firm. If provides sufficient insight into low efficiency the long term funds owners and creditors are being used. The higher ratio indicates that the firm has more efficient use of capital employed and vice-versa.

Return on Capital Employed $=\frac{\text { Total NPAT }}{\text { Total Capital Employed }}$

The ratio of Nabil and NSBIBL is shown in the following table.

Table 4.13: Return on Capital Employed Ratio (in percentage)
(Rs in Million)

| Fiscal | Nabil |  |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Total <br> NPAT | Total <br> Capital <br> Employed | Ratio | Total <br> NPAT | Total <br> Capital <br> Employed | Ratio |  |
| $2000 / 01$ | 174.80 | 869.00 | 20.11 | 58.98 | 262.34 | 22.48 |  |
| $2001 / 02$ | 266.48 | 934.10 | 28.52 | 16.77 | 321.13 | 5.22 |  |
| $2002 / 03$ | 329.12 | 1046.91 | 31.43 | 50.07 | 226.07 | 22.14 |  |
| $2003 / 04$ | 291.37 | 1140.93 | 25.53 | 12.51 | 241.16 | 5.18 |  |
| $2004 / 05$ | 271.63 | 1563.71 | 17.37 | 40.84 | 1119.13 | 3.64 |  |
| $2005 / 06$ | 416.24 | 2275.65 | 18.29 | 48.75 | 635.68 | 7.67 |  |
| $2006 / 07$ | 455.31 | 1711.34 | 26.61 | 60.85 | 743.82 | 8.18 |  |
| Average |  |  | 23.98 |  |  | 10.64 |  |
| S.D |  |  | 5.02 |  |  | 7.52 |  |
| C.V |  |  | $20.94 \%$ |  |  | $70.64 \%$ |  |

Source: Annual Report of Nabil and NSBIBL.

The table shows the NPAT and total capital employed position of Nabil and NSBIBL. The average return on capital employed ratio of Nabil is 23.98. It represent $26.74 \%$ of total capital employed used own sources efficiency. The standard deviation and coefficient of variation of this bank is 5.02 and $20.94 \%$ respectively during the study period.

Similarly, the average return on capital employed ratio of NSBIBL is 10.64 , which represents only $10.64 \%$ on total capital employed. It is lower ratio than Nabil, therefore NSBIBL should be utilized own resources in defective manner. The standard deviation and coefficient of variation of NSBIBL are 7.52 and $70.64 \%$ respectively. Form the above analysis; we can conclude that the average return on capital employed of Nabil is higher than NSBIBL. In other words, Nabil has
properly used its capital to profitable areas. The return of Nabil is better position than NSBIBL. (Appendix 13).

### 4.4.4 Return on Total Deposit Ratio

Net profit on total deposit ratio measures the return on deposits. Here total deposits means those total amounts deposited in various accounts i.e. current, saving, fixed, other (margin) and call and short deposits.

Generally, higher ratio signifies better utilization of deposits and vice-versa. Since, the capital structure of the firm strongly affected its profitability. The major function of commercial banks is to mobilize deposits. Here this ratio will enable to measure its efficiency towards its deposits mobilization.

Return on Total Deposit Ratio $=\frac{\text { Total NPAT }}{\text { Total Deposit }}$
Return on total deposit ratio of Nabil and NSBIBL has been tabulated below.
Table 4.14: Return on Total Deposit Ratio (in percentage)
(Rs in Million)

| Fiscal <br> Year | Nabil |  |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total <br> NPAT | Total <br> Deposits | Ratio | Total <br> NPAT | Total <br> Deposits | Ratio |  |
| $2000 / 01$ | 174.80 | 8737.76 | 2.00 | 58.98 | 3744.50 | 1.57 |  |
| $2001 / 02$ | 266.48 | 9664.28 | 2.75 | 16.77 | 4380.02 | 0.38 |  |
| $2002 / 03$ | 329.12 | 12779.51 | 2.57 | 50.07 | 4535.73 | 1.10 |  |
| $2003 / 04$ | 291.37 | 15839.01 | 1.83 | 12.51 | 6612.29 | 0.18 |  |
| $2004 / 05$ | 271.63 | 15506.42 | 1.75 | 40.84 | 5572.47 | 0.73 |  |
| $2005 / 06$ | 416.24 | 13447.66 | 3.09 | 48.75 | 6522.82 | 0.75 |  |
| $2006 / 07$ | 455.31 | 14119.03 | 3.22 | 60.85 | 7198.33 | 0.85 |  |
| Average |  |  | 2.46 |  |  | 0.79 |  |
| S.D |  |  | 0.56 |  |  | 0.40 |  |
| C.V |  |  | $22.7 \%$ |  |  | $50.75 \%$ |  |

Source: Annual Report of Nabil and NSBIBL

The above table shows the total NPAT to total deposit ratio of Nabil and NSBIBL is fluctuating trend. The average return on total deposit of Nabil is $2.46 \%$. This is
only $2.46 \%$ of total deposits. Standard deviation and coefficient of variation are 0.56 and $22.7 \%$. The highest ratio of Nabil is $3.22 \%$ in $2006 / 07$ and lowest $1.75 \%$ in year 2004/05

The average return on total deposit of NSBIBL is $0.79 \%$ which represents NPAT is $0.79 \%$ of total deposit. The standard deviation and coefficient of variation of NSBIBL is 0.40 and $50.75 \%$ respectively.

The above analysis helps to conclude that the NPAT to total deposit ratio of Nabil is better than NSBIBL. Mobilization of external funds is important to earn profit for a commercial bank. Thus Nabil has better performance on mobilization of total deposits during the study period. (Appendix 14).

### 4.4.5 Interest Earned to Total Assets Ratio

Interest earned to total assets ratio measure the percentage of interest earned in relation to total assets of the banks. The ratio signifies the mobilization of its assets in interest generating purpose. A high ratio reflects the better efficiency in utilizing the resources in interest generating sectors and vice-versa.

It can be calculated as follows:

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

The following table shows the interest earned to total asset of Nabil and NSBIBL.

Table 4.15: Total Interest Earned to Total Assets Ratio (in percentage)
(Rs in Million)

| Fiscal <br> Year | Nabil |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total <br> Interest <br> Earned | Total Assets | Ratio | Total Interest Earned | Total Assets | Ratio |
| 2000/01 | 899.66 | 11230.90 | 8.01 | 365.03 | 4122.57 | 8.85 |
| 2001/02 | 903.24 | 12429.67 | 7.26 | 403.49 | 4812.01 | 8.38 |
| 2002/03 | 1047.03 | 15314.74 | 6.83 | 437.32 | 5164.52 | 8.46 |
| 2003/04 | 1266.70 | 18808.88 | 6.73 | 444.56 | 7385.29 | 6.01 |
| 2004/05 | 1120.18 | 17629.25 | 6.35 | 399.63 | 7021.14 | 5.69 |
| 2005/06 | 1017.87 | 16562.62 | 6.15 | 469.74 | 7566.33 | 6.21 |
| 2006/07 | 1001.62 | 16745.49 | 5.98 | 493.60 | 8440.41 | 5.58 |
| Average |  |  | 6.76 |  |  | 7.03 |
| S.D |  |  | 0.65 |  |  | 1.35 |
| C.V |  |  | 9.62\% |  |  | 19.20\% |

Source: Annual Report of Nabil total NSBIBL.

Above table shows that total interest earned and total assets position of Nabil and NSBIBL. The average ratio of interest earned to total assets of Nabil is $6.76 \%$. If is highest $8.01 \%$ in 2000/01 and lowest $5.98 \%$ in 2006/07. Standard deviation and coefficient of variation of Nabil is $0.65 \%$ and $9.62 \%$ respectively.

Similarly, the average ratio of NSBIBL is $7.03 \%$. It is highest $8.85 \%$ in 2000/01 and lowest $5.58 \%$ in 2006/07. The standard deviation and coefficient of variation of NSBIBL is 1.35 and $19.20 \%$ respectively.

The C.V. of Nabil is lower than NSBIBL. This shows that there is less variation in interest earned to total assets ratio maintained by Nabil compared to NSBIBL. (Appendix 15).

### 4.5 Investment ability Ratio

Analysis of inevitability ratio helps to the investors to know the invisibility of the bank. Under this topic the following ratios are calculated.

### 4.5.1 Earning Per Share (EPS)

Earning per share itself implied generated income which reduces even tax, must be allocated to its real owners. Earning per share is calculated by dividing net income available to the common stockholders by the total no. of common shares outstanding.

$$
\text { EPS }=\frac{\text { Total NPAT }}{\text { Total Number of Common Shares Outstanding }}
$$

Table 4.16: Earning Per Share

| Year <br> Banks | 2000/01 | $2001 / 02$ | $2002 / 03$ | $2003 / 04$ | $2004 / 05$ | $2005 / 06$ | $2006 / 07$ | Average |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Nabil | 44.50 | 67.84 | 83.79 | 59.26 | 55.25 | 84.66 | 92.20 | 69.64 |
| NSBIBL | 49.17 | 13.98 | 41.74 | 8.69 | 34.05 | 11.47 | 14.25 | 24.76 |

Source: Annual Report of Nabil and NSBIBL.

Above table shows that the earning per share of Nabil and NSBIBL during the study period. Average earning per share of Nabil is Rs 69.64 and NSBIBL is Rs 24.76 respectively. The EPS of Nabil is higher than NSBIBL. It shows that Nabil is able to earn more profit than NSBIBL.

### 4.5.2 Dividing Per Share (DPS)

Dividend implies that portion of net profit, which is allocate to shareholders as their return in term of cash. The EPS implies what the owners are theoretical entitled to get from the company. DPS is that of EAT, that cash amount is
allocated to shareholders divided by total no. of ordinary shares outstanding. DPS has been computed in the following formula.

DPS $=\frac{\text { Total Proposed Dividend Amount }}{\text { Total Number of Common Share Issued }}$

Table 4.17: Dividend Per Share

| Year <br> Banks | $2000 / 01$ | $2001 / 02$ | $2002 / 03$ | $2003 / 04$ | $2004 / 05$ | $2005 / 06$ | $2006 / 07$ | Average |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Nabil | 30 | 50 | 55 | 40 | 30 | 50 | 65 | 45.71 |
| NSBIL | 20.01 | 10 | 15.01 | 0.00 | 0.00 | 8.00 | 0.00 | 7.57 |

Source: Annual Report of Nabil and NSBIBL.

Above table shows that the dividend per share of Nabil and NSBIBL during the study period. The average DPS of Nabil and NSBIBL is Rs. 45.71 and Rs. 7.57 respectively. It indicates that Nabil had declared more than $50 \%$ of profit as dividend and NSBIBL has declared only $30 \%$ of profit declared as dividend.

By comparing DPS between two banks, Nabil has performed better position than NSBIBL. High DPS shows the strong position of banks. So, the banks should be managed dividend in proper way that creates the good will of the banks.

### 4.5.3 Dividend Payout Ratio (DPR)

Dividend payout ratio measures the relationship between the earning belonging to the ordinary shareholders and the dividend paid to them. In other words, the dividend payout ratio shows what proportion of earning is paid out as dividend
and how much retained by the firm. Usually, higher dividend payout ratio is preferred by the shareholders whereas a very high ratio may slow down the growth goals favours a low dividend payout ratio of proportionately more earning in order to utilize again in profit generating purpose.

Dividend payout ratio is calculated by using the following formula.

Dividend Payout Ratio $=\frac{\text { DPS }}{\text { EPS }}$

Table 4.18: Dividend Payout Ratio

| Fiscal <br> Year | Nabil |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | DPS | EPS | DPR\% | DPS | EPS | DPR\% |
| $2000 / 01$ | 30 | 44.50 | 67.41 | 20.01 | 49.17 | 40.69 |
| $2001 / 02$ | 50 | 67.84 | 73.70 | 10.00 | 13.98 | 71.53 |
| $2002 / 03$ | 55 | 83.97 | 65.64 | 15.01 | 41.74 | 35.96 |
| $2003 / 04$ | 40 | 59.26 | 67.49 | 0.00 | 8.69 | 0.00 |
| $2004 / 05$ | 30 | 55.25 | 54.29 | 0.00 | 34.05 | 0.00 |
| $2005 / 06$ | 50 | 84.66 | 59.06 | 8.00 | 11.47 | 69.75 |
| $2006 / 07$ | 65 | 92.20 | 70.50 | 0.00 | 14.25 | 0.00 |
| Average | 47.71 | 69.64 | 65.73 | 7.57 | 24.76 | 31.13 |

Source: Annual Report of Nabil and NSBIBL.

Above table shows the relationship of DPS and EPS of Nabil and NSBIBL. The average DPR of Nabil and NSBIBL is $65.73 \%$ and $31.13 \%$ respectively. The DPR of Nabil is ranged from $73.70 \%$ in year 2001/02 and lowest $54.29 \%$ in year 2004/05, similarly, the highest ratio of NSBIBL is $69.75 \%$ in 2005/06 and lowest $0 \%$ in the year 2003/04, 2004/05 and 2006/07espectively.

The higher DPR indicates that the bank distributed more amount as dividend and vice-versa. Some time NSBIBL ignored about dividend. The cause of such result
occurred when the banking activities are fluctuating due to various factors, some of them external and some of them internal factor created such situation.

By comparing DPR between two banks, in the viewpoint of shareholders, Nabil perform better position because of regular payment of dividend and higher than NSBIBL. But NSBIBL have more flexibility in DPR and also low due to lack of proper distribution of dividend.

### 4.6 Other Ratios

The other ratios can be calculated by the following related ratios

### 4.6.1 Total Interest Expenses to Total Interest Income Ratio (TIE to TII)

This ratio measures the percentage of total interest expenses against total interest income. This ratio is calculated by dividing total interest expenses by total interest income.

$$
\text { TIE To TII }=\frac{\text { Total Interest Expenses }}{\text { Total Interest Income }}
$$

The following table shows the total interest income of Nabil and NSBIBL.

Table 4.19: Total Interest Expenses to Interest Income Ratio (In percentage)
(Rs in Million)

| Fiscal | Nabil |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Year <br> Interest <br> Expenses | Total <br> Interest <br> Income | Ratio | Total <br> Interest | Total <br> Interest <br> Income | Ratio |
| $2000 / 01$ | 433.91 | 899.66 | 48.23 | 240.75 | 365.03 | 65.95 |
| $2001 / 02$ | 404.39 | 903.24 | 44.77 | 310.79 | 403.49 | 77.02 |
| $2002 / 03$ | 432.96 | 1047.03 | 41.35 | 281.66 | 437.32 | 64.40 |
| $2003 / 04$ | 578.36 | 1266.70 | 45.65 | 271.79 | 444.56 | 61.13 |
| $2004 / 05$ | 462.07 | 1120.18 | 41.24 | 288.57 | 399.63 | 72.20 |
| $2005 / 06$ | 317.35 | 1017.87 | 31.18 | 291.82 | 469.74 | 62.12 |
| $2006 / 07$ | 282.95 | 1001.62 | 28.25 | 255.92 | 493.60 | 51.58 |
| Average |  |  | 40.10 |  |  | 64.91 |
| S.D |  |  | 6.98 |  |  | 7.57 |
| C.V |  |  | $17.42 \%$ |  |  | $11.65 \%$ |

Source: Annual Report of Nabil and BSBIBL.

The above table shows the total interest expenses to total interest income ratio of Nabil and NSBIBL from the year 2000/01 to 2006/07.

In the study period, the ratio of Nabil is in decreasing trend. It varies from maximum $48.23 \%$ in the year 2000/01 to minimum $28.25 \%$ in the year 2006/07. The average ratio is $40.10 \%$ during the study period. The standard deviation and coefficient of variation of this bank is 6.98 and $17.42 \%$ respectively.

While focusing on the data of NSBIBL presented in the above table, the ratios are also in fluctuating trend. It is varies from maximum of $77.02 \%$ in the year 2001/02 and minimum $51.65 \%$ respectively.

From the above analysis, we can conclude that the Nabil is better than NSBIBL because it has low expensed ratio as well as low deviation of ratio. (Appendix-16).

### 4.6.2 Commission and Discount to Total Income Ratio

This ratio reflects the proportion of commission and discount earned on total income. Thus it is calculated by dividing income from commission and discount by total income of banks. This ratio is calculated by the following formula.

Commission and Discount to Total Income Ratio $=\frac{\text { Total Commission and Discount }}{\text { Total Income }}$

The following table shows the ratio of commission and discount to total income ratio of Nabil and NSBIBL.

Table 4.20: Table Commission and Discount Income to Total Income Ratio (In Percentage)
(Rs in Million)

| Fiscal | Nabil |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Commission <br> \& Discount <br> Income | Total <br> Income | Ratio | Commission <br> \& Discount <br> Income | Total <br> Income | Ratio |
| $2000 / 01$ | 89.29 | 114.03 | 8.01 | 22.07 | 415.93 | 5.30 |
| $2001 / 02$ | 117.29 | 1128.93 | 10.38 | 27.20 | 452.42 | 6.01 |
| $2002 / 03$ | 139.59 | 1309.11 | 10.66 | 34.18 | 495.29 | 6.90 |
| $2003 / 04$ | 146.84 | 1573.31 | 9.33 | 32.40 | 505.23 | 6.41 |
| $2004 / 05$ | 114.33 | 1639.11 | 6.97 | 36.57 | 508.37 | 7.19 |
| $2005 / 06$ | 144.41 | 1427.45 | 10.12 | 29.96 | 565.91 | 5.29 |
| $2006 / 07$ | 136.00 | 1426.44 | 9.53 | 30.67 | 611.61 | 5.02 |
| Average |  |  | 10.14 |  |  | 6.02 |
| S.D |  |  | 2.88 |  |  | 0.79 |
| C.V |  |  | $28.43 \%$ |  |  | $13.08 \%$ |

Source: Annual Report of Nabil and NSBIBL.

The calculation of total commission and discount income to total income ratio of Nabil in the above table shown fluctuating trend in the study period. It varies from maximum $10.66 \%$ in the year 2002/03 to minimum $6.97 \%$ in the year 2004/05. The maximum ratio refers the more share of discount and commission in total income and vice-versa. The average ratio of this bank is $10.14 \%$. The standard deviation and coefficient of variation of Nabil is 2.88 and $28.43 \%$ respectively.

Similarly, the calculation of NSBIBL as shown also fluctuating trend during the study period. The maximum ratio is $7.9 \%$ in 2004/05 and minimum $5.02 \%$ in 2006/07. The average ratio of this bank is $6.02 \%$ and it's S.D. and C.V. is 0.79 and $13.08 \%$ respectively.

By comparing, Nabil is better than NSBIBL by comparing only average. But S.D. and C.V. shows the NSBIBL is lower risky. (Appendix-17).

### 4.6.3 Total Staff Expenses to Total Income Ratio

This ratio measures the percentage of staff expenses against total income of banks. It is calculated by dividing staff expenses by total income. Their staff expenses include salary, allowances bank contribution to provident fund, staff training expenses, medical attention and other expenses.

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

This ratio is shown following table.

Table 4.21: Total Staff Expenses to Total Income Ratio (In Percentage)
(Rs in Million)

| Fiscal <br> Year | Nabil |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total <br> Staff <br> Expenses | Total <br> Income | Ratio | Total <br> Staff <br> Expenses | Total <br> Income | Ratio |
| $2000 / 01$ | 73.93 | 1114.03 | 6.63 | 10.23 | 415.93 | 2.45 |
| $2001 / 02$ | 87.38 | 1228.93 | 7.74 | 14.12 | 452.42 | 3.12 |
| $2002 / 03$ | 97.97 | 1309.11 | 7.48 | 17.91 | 495.29 | 3.61 |
| $2003 / 04$ | 145.86 | 1573.31 | 9.27 | 23.53 | 505.23 | 4.65 |
| $2004 / 05$ | 144.88 | 1639.11 | 8.83 | 26.64 | 508.37 | 5.24 |
| $2005 / 06$ | 210.58 | 1427.45 | 14.75 | 33.73 | 565.91 | 5.96 |
| $2006 / 07$ | 180.84 | 1426.44 | 12.68 | 32.51 | 611.61 | 5.32 |
| Average |  |  | 9.63 |  |  | 4.34 |
| S.D |  |  | 2.81 |  |  | 1.20 |
| C.V |  |  | $29.20 \%$ |  |  | $27.62 \%$ |

Source: Annual Report of Nabil and NSBIBL

Above table shows the total staff expenses and total income position of two banks. The ratio of staff expenses to total income of two banks are in fluctuating trend during the study period. The average ratio of Nabil is $9.63 \%$, it indicates that out of total income $9.63 \%$ is spent as staff expenses. The standard deviation and coefficient of variation of this banks is 2.81 and $29.20 \%$ respectively.

Similarly, the average ratio of staff expenses to total income ratio of NSBIBL is $4.34 \%$, which represents $4.34 \%$ of total income spend in staff expenses. The standard deviation and coefficient of variation of this bank is 1.20 and $27.62 \%$ respectively.

There is no standard of this ratio, it is depend upon the banks practice and experience. It is increased by business activities. Volume of business creates the staff expenses.

By comparing, the NSBIBL is better than Nabil because it has low staff expenses ratio as well as low S.D. and C.V. (Appendix-18).

### 4.6.4 Total Exchange gain to Total Income Ratio

This ratio reflect the proportion of exchange fluctuation income to total income thus it is calculated by dividing net exchange gain by total income.

Total Exchange Gain to Total Income $=\frac{\text { Total Exchange Gain }}{\text { Total Income }}$

The following table shows the ratio of exchange gain to total income of Nabil and NSBIBL.

Table 4.22: Total Exchange Gain to Total Income Ratio (In Percentage)
(Rs in Million)

| Fiscal <br> Year <br> Total <br> Exchange <br> Income | Total <br> Income | Ratio | Total <br> Exchange <br> Income | Total Income | Ratio |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 124.88 | 1114.03 | 11.20 | 7.83 | 415.93 | 1.88 |
| $2001 / 02$ | 108.15 | 1128.93 | 9.57 | 1.80 | 452.42 | 0.39 |
| $2002 / 03$ | 122.19 | 1309.11 | 9.33 | 23.79 | 495.29 | 4.80 |
| $2003 / 04$ | 159.51 | 1573.31 | 10.13 | 28.27 | 505.23 | 5.59 |
| $2004 / 05$ | 154.21 | 1639.11 | 9.40 | 42.53 | 508.37565 .91 | 8.36 |
| $2005 / 06$ | 144.08 | 1427.45 | 10.09 | 18.51 | 611.61 | 3.27 |
| $2006 / 07$ | 157.32 | 1426.44 | 11.03 | 30.62 |  | 5.01 |
| Average |  |  | 10.11 |  |  | 4.19 |
| S.D |  |  | 0.70 |  |  | 2.42 |
| C.V |  |  | $6.90 \%$ |  |  | $57.76 \%$ |
| Sourc: An |  |  |  |  |  |  |

Source: Annual Report of Nabil and NSBIBL.

Above table shows that total exchange income and total income position of Nabil and NSBIBL. The average exchange income to total income ratio of Nabil is $10.11 \%$ which represents that exchange income covered $10.11 \%$ of total income. The standard deviation and coefficient of variation of this bank is 0.705 and $6.90 \%$ respectively.

Similarly, the average ratio of total exchange income to total income of NSBIBL is $4.19 \%$ which indicates that only $4.19 \%$ of total income covered by exchange gain. The standard deviation and coefficient of variation of this bank is 2.42 and $57.76 \%$.

Comparing the exchange income to total income between two banks, Nabil has earned better income from foreign exchange than NSBIBL. Nabil has also low S.D. and Low C.V., it indicates that Nabil is better position than NSBIBL (Appendix-19).

### 4.7 Correlation Analysis

Correlation analysis is used to measure the degree of association between two or more variables. So, for the researcher, correlation analysis is useful tool in many ways such as;
(i) To determine whether the relationship exists or not.
(ii) Whether the relationship significant or not.
(iii) Establish cause and effect relation if any.

The coefficient of correlation is calculated in between +1 . The negative value of ' $r$ ' signifies negative relationship between the variables, i.e., increase in one variable increase other variable and vice-versa. While positive value signifies positive relationship between the variables.

### 4.7.1 Correlation between Debt and NPAT

The coefficient of correlation between debt and NPAT measure the degree of relationship between them. The purpose of computing coefficient of correlation between debt and NPAT is to find out whether debt is significantly used in NPAT or not.

To find out relation between debt and NPAT, Debt $(\mathrm{X})$ is assumed dependent variable and NPAT (Y) is assumed to be independent variable. The assumption is such case in made that NPAT will increase or decrease as increase or decrease in
debt respectively. The calculation of correlation between debt and NPAT is shown in appendix-20.

## Table 4.23: Correlation between Debt and NPAT

| Bank | Correlation <br> 'r' | $\mathrm{r}^{2}$ | P.F.(r) | Result |
| :---: | :---: | :---: | :---: | :---: |
| Nabil | 0.58 | 0.34 | 0.17 | Significant |
| NSBIBL | 0.009 | 0.0001 | 0.25 | Not Significant |

Source: Appendix-20(A\&B).

From the above table, the coefficient of correlation between debt and NPAT of Nabil comes out 0.58 . Thus this correlation indicates that there is moderate degree of positive relation between debt and return. It means, there will be an increase in return as the bank uses more debt in the capital structure.

Similarly, correlation of NSBIBL comes out 0.009 thus, this correlation indicates that there is less positive relationship between debt and NPAT.

The P.E.(r) of Nabil is 0.17 which is less than ' $r$ ' which indicates that correlation between debt and NPAT of Nabil is significant. But the P.E.(r) ${ }_{(r)}$ of NSBIBL is more than ' $r$ ' i.e. $r \leq$.E.(r), this indicates that the relationship between debt and NPAT of NSBIBL is not significant.

### 4.7.2 Correlation between Loan and Advance and Total Deposit

The coefficient of correlation between loan and advances and total deposits is to measure the degree of relationship between major components of current assets, that is, loan and advances, and major sources of fund on bank, i.e., total deposits. In correlation analysis, deposit is independent variable (Y) and loan and advances is dependent variable ( x ). The purpose of computing coefficient of correlation is to
justify whether or not the deposits are significantly used in loan and advances and whether there is any relationship between these two variables. To find out the correlation 'r' various calculation are done. Given table shows the coefficient of correlation ' $r$ ' between loan advances, and total deposits of Nabil and NSBIBL during the study period.

## Table 4.25: Correlation between Loan and Advances and Total Deposit

| Bank | Correlation 'r' | $\mathrm{r}^{2}$ | P.E.(r) | Result |
| :---: | :---: | :---: | :---: | :---: |
| Nabil | 0.89 | 0.79 | 0.053 | Significant |
| NSBIBL | 0.93 | 0.86 | 0.034 | Significant |

Source: Appendix-21 (A \& B).

The above table indicates the coefficient correlation between loan and advance and total deposit of Nabil is 0.89 which indicates highly positive relationship between these two variables. By considering the probable error P.E.(r), is also less than ' $r$ ' that means the relation is highly significant.

In case of NSBIBL, we observe coefficient of correlation between loan and advance and total deposit is 0.93 which shows the highly positive relationship between two variables. The proble error is 0.034 which is less than 'r', we can conclude that the correlation between total deposit and loan and advance is highly significant in this case as well.

From the above analysis, we can conclude that there is highly significant relation between two variables. Both banks have utilized its total deposits on loan and advances effectively. But higher value of ' $r$ ' in NSBIBL shows better relationship as well as utilization of deposit on loan and advances than Nabil.

### 4.7.3 Correlation between Cash and Bank Balance and Current Liabilities

Cash and bank balance are most liquid components of current assets. They required to meet the unexpected short-term obligation or current liabilities. The
coefficient of correlation between cash and bank balance and current liabilities is to measure the degree of relationship between cash and bank balance and current liabilities. To find out the correlation, various calculations are performed. Given table shows the coefficient of correlation between cash and bank balance and current liabilities of Nabil and NSBIBL during the study period.

## Table 4.26: Correlation between Cash and Bank Balance and Current

 Liabilities| Bank | Correlation 'r' | $\mathrm{r}^{2}$ | P.E. $_{\text {(r) }}$ | Result |
| :---: | :---: | :---: | :---: | :---: |
| Nabil | 0.15 | 0.023 | 0.25 | Not Significant |
| NSBIBL | 0.39 | 0.152 | 0.216 | Significant |

Source: Appendix 22 A \& B.
From the table above, it can be inferred that the coefficient of correlation between cash and bank balance and current liabilities in Nabil is 0.15 which shows very low positive relationship between them. The P.E. of this bank is 0.25 which is more than ' $r$ ' i.e. P.E.>'r'. It indicates that there is no significant relationship between two variables of Nabil.

In case of NSBIBL, it can be seen the coefficient of correlation between cash and bank balance and current liabilities is 0.39 which is less positive relationship between two variables. The P.E. of NSBIBL is 0.216 which is less than ' $r$ '. So, the relationship is significant.

### 4.7.4 Correlation between Loan and Advance and Net Profit

The basic function of a commercial bank is to collect deposit and invest these funds on loan and advances to generate higher profit. Large amount of loan and advances generate higher profit. The coefficient of correlation between loan and advances and net profit measures the degree of relationship between loan and advances and net profit. In correlation analysis loan and advances is independent variable ( y ) and net profit is dependent variable (x). The purpose of computing
coefficient of correlation is to justify whether or not the loan and advances significantly generate profit and whether there is any relationship between these two variables.

The following table shows the coefficient of correlation between loan and advances and net profit of Nabil and NSBIBL.

Table 4.27: Correlation between Loan and Advance and Net Profit

| Bank | Correlation 'r' | $\mathrm{r}^{2}$ | P.E.(r) $^{\text {. }}$ | Result |
| :---: | :---: | :---: | :---: | :---: |
| Nabil | -0.34 | 0.1156 | 0.225 | Not Significant |
| NSBIBL | 0.32 | 0.1024 | 0.229 | Significant |

Source: Appendix 23 A \& B.

From the above table, it is found that the coefficient of correlation between loan and advances and net profit of Nabil is -0.34 which shows negative relationship between these two variables. This indicates that, if the loan and advance increased, then net profit well decreased and vice-versa. Similarly $r^{2}$ and P.E.(r) is also more than ' $r$ ', which indicates that there is not significant relation between two variables.

Similarly, incase of NSBIBL, the coefficient of correlation between two variables is 0.32 , which indicates moderate positive relation between two variables. The $r^{2}$ and P.E.(r) ${ }_{\text {(r) }}$ of this bank is 0.1024 and 0.229 . Both values are less than the value of ' $r$ '. So, the relation between two variables is significant.

From the above analysis, it can be conclude that incuse of Nabil, there is no significant relationship betw0een loan and advances and net profit but there is a significant relationship in exists NSBIBL.

### 4.8 Major Findings:

The finding of this study of Nabil and NSBIBL during the seven-year period is summarized below:

## (1) The liquidity position of Nabil and NSBIBL reveal that:

(a) The mean ratio of current ratios of NSBIBL is higher than Nabil. But variability of Nabil is high than NSBIBL. Both banks are not maintaining good current ratio. By comparing two banks NSBIBL has to ability to discharge short-term obligation.
(b) The mean ratio of cash and bank balance to current deposit of two banks (i.e., Nabil \& NSBIBL) is $36.09 \%$ and $96.36 \%$ respectively. The highest mean ratio of NSBIBL is $96.36 \%$, it indicates that cash and bank balance is less than current deposits. The lowest ratio of Nabil is $36.09 \%$, it indicates that current excess than cash and bank balance.
(c) The mean ratio of cash and bank balance to total deposit (excluding fixed deposit) of Nabil and NSBIBL is $12.01 \%$ and $48.74 \%$ respectively. The ratio of NSBIBL is higher than Nabil. The highest mean ratio indicates that banks can pay if other depositors demand the fund in any time otherwise vice-versa.

## (2) The Activity ratio of Nabil and NSBIBL reveals the following position:

(a) The mean ratio of loans and advances to total deposits of two banks are $57.10 \%$ and $72.17 \%$ respectively. The ratio of NSBIBL is higher than Nabil. The highest ratio indicates the efficient utilization of funds and vice-versa.
(b) The mean ratio of loan and advances to total fixed deposits ratio of two banks are $227.67 \%$ (Nabil) and $169.33 \%$ (NSBIBL) respectively. Loan and advances to total deposit ratio of Nabil is higher than NSBIBL. The highest ratio indicates that the bank able to convert deposit amount into loan and advances and the low ratio indicates that the bank not to try or has not adequate policy for loan and advances by using deposit amount.
(c) The mean ratio of total loan and advances to total saving deposits of Nabil and NSBIBL is $173.90 \%$ and $355.48 \%$ respectively. The highest ratio of NSBIBL indicates that the bank can success to utilize saving deposits into loan and advance and the low ratio of Nabil indicates that the bank not able to follow adequate policy regarding that deposits.
(d) The mean ratio of investment to total deposit ratio of Nabil and NSBIBL is $30.10 \%$ and $12.59 \%$ respectively. The high ratio of Nabil indicates that the bank cans success to invest amount by using total deposit. The low ratio lf NSBIBL indicates that the bank is not able to utilize their deposit appropriately.

## (3) Capital Structure Ratio of two Banks shows the following Positions

(a) The mean ratio of total debt to total asset of Nabil and NSBIBL is $84 \%$ and $93 \%$ respectively. The debt assets ratio of NSBIBL is more than Nabil. The high ratio indicates that the bank used more amounts by debt capital. It is risky and profitable and vice-versa.
(b) The mean ratio of total debt to total equity of Nabil and NSBIBL is 12 times and 16 times respectively. The debt to equity ratio of

NSBIBL is higher than Nabil. The high ratio indicates that in total capital how many portion shared by debt. In other words, we can say tat outsider claim is high in firm and vice-versa.
(c) The mean ratio of total interest coverage ratio of Nabil and NSBIBL is 2.21 and 1.25 times respectively. The interest coverage ratio of Nabil is higher than NSBIBL. The high ratio indicates that the bank able to pay interest easily in any time and low ratio indicates that the bank has to difficult to pay interest in time.

## (4) Profitability Ratio of two Banks shows the following Position

(a) The mean ratio of return on total assets of Nabil and NSBIBL is $2.02 \%$ and $0.62 \%$ respectively. The return on total assets of Nabil is higher than NABIBL. The high ratio indicates that the bank has to able to utilize assets efficiently. The low ratio of NSBIBL indicates that the bank not to success to utilize assets efficiently.
(b) The average ratio of return on shareholder's equity of Nabil and NSBIBL is $28.34 \%$ and $11.53 \%$. The high ratio of Nabil indicates that the bank as to utilize shareholders fund efficiently and low ratio of NSBIBL indicates that the bank not to try utilize shareholder's fund efficiently.
(c) The mean ratio of return on capital employed of Nabil and NSBIBL is $23.98 \%$ and $10.64 \%$ respectively. The high ratio of Nabil indicates that the bank has to able to use capital employed efficiently and the low ratio of NSBIBL indicates that the bank is not successfully use capital employed than Nabil.
(d) The main ratio of return on total deposit of Nabil and NSBIBL is $2.46 \%$ and $0.79 \%$ respectively. The high ratio of Nabil indicates that
the bank has to able to utilize total deposit amount and low ratio of NSBIBL indicates that the bank is not tried or successfully utilize total deposit efficiently.
(e) The mean ratio of interest earned to total assets of Nabil and NSBIBL is $6.76 \%$ and $7.03 \%$ respectively. The interest earned ratio of NSBIBL is higher than Nabil. The high ratio of NSBIBL indicates that the bank has to able to total assets efficiently and low ratio of Nabil indicates that the bank is not utilizing total assets efficiently.

## (5) Other Ratio of Nabil and SCIBL show the following Positions

(a) The average ratio of total invest expenses to total interest income ratio of Nabil and NSBIBL is $40.10 \%$ and $64.91 \%$ respectively. The interest exp. Ratio of NSBIBL is higher than Nabil. The high interest ratio indicates that the bank has to bear high interest expenses. And low ratio indicates that the bank is not to bear high interest expenses.
(b) The average ratio of total commission and discount income to total interest income of Nabil and NSBIBL is $10.14 \%$ and $6.02 \%$ respectively. The ratio of commission and discount income to total interest income of Nabil is higher than NSBIBL. The high ratio of Nabil indicates that the bank can success to earn highest income from commission and discount. The low ratio of NSBIBL indicates that the bank is not able to earn high income from commission and discount.
(c) The average ratio of total staff expenses to total income of Nabil and NSBIBL is $9.63 \%$ respectively. The high ratio of Nabil indicates that the bank has paid huge amount to staff and low ratio of NSCBL indicates that the bank has less paid to staff.
(d) The average ratio of total exchange income to total income of Nabil and NSBIBL sis $10.11 \%$ and $4.19 \%$ respectively. The high ratio of Nabil indicates that more income is generated from exchange income and low ratio of NSBIBL indicates that the bank less income is generated from exchange income.

## CHAPTER - V

## Summary, Conclusion and Recommendations

### 5.1 Summary

Establishment of commercial banks, especially joint venture banks, has continued in response to the economic liberalization policies of the government. As a result, in Nepal, there are seventeen commercial banks at present competing wit each other in their business. These joint venture banks have concerned themselves on financing foreign trade, commerce and industry.

Nepal's financial system is dominated by the banking system, where commercial banks are the largest and important constitution. A sound banking system is necessary for the national development. Money, finance and financial institution have come to play practically indispensable role structure and direction taken by the economy through their effects upon saving and investments decisions, but are also influenced by the process and levels of development itself. This interaction is not only internal (natural level) but also external through the promotion of financial and economic linkages.

To fulfil the objective of economic development, HMG/N in early 1980s the liberalization policy directed at the development of qualitative banking services by allowing even the foreign banks to operate in Nepalese money market lead to the establishment of several commercial banks under foreign collaboration. As a result in 1999, such JVBs with modern banking facilities come into operation under the company act, 1964 in order to provide modern banking facilities, that has invited a new era of banking in Nepal by introducing higher technology and efficient method in banking business. Consequently, several people have benefited in quick service, better link with international trade, and formations of capital by converting dispersed saving in the meaningful capital investment. So, the role of
commercial banks has become special in the task of capital information, which is undoubtedly, a key variable in economic development of a country.

The present study has been undertaken to examine the financial performance of Nabil and NSBIBL. The financial statement of last seven years i.e. from fly 2000/01 to $2006 / 07$ has been examined for the purpose of study. This study is mainly based on secondary data that have been first processed and analyzed comparatively. The research is descriptive as well as analytical at the same time. Analysis of the bank's financial statement is different from that of other companies due to the special nature of assets and liabilities structure of the banking industry. The major current development of financial reporting as a result of changes in banking industry is greater public disclosure and standardization of accounting policies.

### 5.2 Conclusion

Financial statement refers that statement which systematically contains summarised information of the firms financial affairs. These statements provide variable financial information about economic resources and development of business firm's financial resources.

From the above findings the researcher has been able to draw certain conclusions that Nabil and NSBIBL have different type of results. The researcher has calculated the combined mean of every ratio. The following table exhibits the comparative performance of two banks.

Table 4.28: Comparative Financial Performance

| Ratios | Banks | Nabil |
| :--- | :--- | :--- |
|  | 16.37 |  |
| Activity | 122.19 | 48.72 |
| Capital Structure | 32.74 | 152.39 |
| Profitability | 12.71 | 36.75 |
| Invest ability | 60.36 | 6.12 |
| Others | 1750 | 21.15 |

Source: Annual Report of Nabil and NSBIBL.

From above table, we can find that liquidity position of NSBIBL is better than Nabil. It indicates that NSBIBL has to easily to pay current liabilities. But both banks are below the standard (i.e., 2:1). These banks should try to maintain $2: 1$ ratio of liquidity position. Activity ratio of NSBIBL is also better than Nabil. It indicates that business activities are more frequently in NSBIBL. Capital structure ratio of NSBIBL is also more than Nabil, it indicates that the bank has used more debt capital. If the bank can use the debt capital efficiently then benefit to shareholders and vice-versa. The capital structure of both bank is not more than $50 \%$ so, debt capital if less used. Generally the bank tries to maintain $60 \%$ to $40 \%$ capital structure ratio that may be beneficial to the bank. It means the bank can success to handle resources effectively. Debt portion is more used in NSBIBL but the profit is low in that bank, it means the bank can not success to use debt effectively. So, the banks try to use debt capital efficiently. The profitability position of Nabil is better than NSBIBL. It indicates that the bank has more investment opportunities are existed to Nabil. If the bank lunches effective programs investment opportunities are existed there otherwise vice-versa.

In conclusion, Nabil is better position on profitability and invest ability position. Such way NSBIBL has better position on liquidity, activity and capital structure.

So, every bank should be avoided on weakness by applying appropriate financial policy, which will be successes to come better financial performance in future.

### 5.3 Recommendations:

At the end of the research, the study without practicable suggestion would be incomplete phenomenon. Therefore, the following recommendations have been made on the basis of foregoing analysis for further improvement of the financial performance position to sample banks.

- In commercial banks, the liquidity position affects external and internal factors such as prevailing interest rates, supply and demand position of loans, saving for investment situations, central banks requirements, and the growth position of the financial market, strategic planning and fund flow situations. The standard of liquidity ratio is $2: 1$, both banks are not maintained this ratio. So, they should be maintained standard to meet the requirements.
- Many financial institutions, especially a private institute could not keep its eyes closed from the profit motive. It should be careful in increasing profit in real sense to maintain the confidence of shareholders, depositors, and its customers. Nabil bank is better profitability position than NSBIBL. NSBIBL is recommended to utilize its risky assets and shareholders funds to gain highest profit.
- In practice, the joint venture banks are established in urban areas, affluent, big customers and are heavily depended on fee based activities. To overcome this situation, only the banks should be accessible to rural area also to all small, medium and higher level customers in enjoying depositing, borrowing and other services.
- The development of competition reduces the non-fund based income along with share in credit market for traditional areas of landing. So, the
banks are recommended to innovate new areas of landing and also more to rural sector in search of few landing areas.
- In the financial market, Nabil and NSBIBL are facing competition each other and other financial institutions like government owned banks, rural banks, finance companies. So, the bank should be improved by:
- Designing the effective organization structure.
- Introducing the acceptable system and procedures.
- Motivating the employees.
- Improving the employee's competence.
- Applying these policies which should be match with the financial and educational level of public.
- Better staff training and research department should be developed by these banks, so, that they would be able to study different aspect of management and supply practical suggestion to develop as an innovate approach in bank management and bank operation.
- In present situation, other branches existing in some limited areas will not unable a bank boost up its campaign of deposit mobilization and credit disbursement as designed. Government policy has also encouraged the joint venture banks to expand the banking services in rural areas and communities without making unbootable impact in their profits. Therefore the selected banks are recommended to open new branches at certain places every year after making feasible of studies. Before making choice of a particular place for opening a branch, saving and business potentialities of that area should also be studied well. This will help in tapping the resources of different places.
- Portfolio management of bank assets basically allocation of funds in to different component of banking assets having different degree of risk and
varied rate of return should be verified in such a way that balance the conflicting goal of maximum yield and minimum risk. So, portfolio condition of these banks should be carefully being examined from time as far as possible.
- From the analysis, sample banks are maintaining more amount as money call or short notice. So, they are recommended to decrease its amount of call by increasing loan and advances.
- Exchange gain to total income ratio of Nabil and NSBIBL is $10.11 \%$ and $4.19 \%$ have exit high degree of risk. If the profit of above banks is significantly supported by foreign exchange fluctuating gain. They are recommended to be cautious of all the foreign exchange risk and also to be prepared to minimize or manage such risk by formulating proper policies and implementing suitable control measures for the improvement income in the time to come.
- In practice, deposited money is mainly tied up in loans. The largest item of the bank in the assets side is loan and advances. So, sample banks are recommended to follow liberal lending policy and invest more percentage amount of total deposits in loan and advances to increase profit.
- Capital adequacy always supports the risk of confidence in stability of the market and other various risk elements. However, while imposing capital standard the NRB should have considered upon introducing certain means of complementary capital norms as:
- Strengthening inspection and supervision of banks.
- Introducing deposit insurance.

Above point should be considered by Nabil and Nepal SBI bank.

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## APPENDIX- 1

Current Ratio

| Year | Nabil |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ratio $(\mathrm{X})$ | $(\mathrm{X}-\overline{\mathrm{X}})$ | $(\mathrm{X}-\overline{\mathrm{X}})^{2}$ | Ratio $(\mathrm{Y})$ | $(\mathrm{Y}-\overline{\mathrm{Y}})$ | $(\mathrm{Y}-\overline{\mathrm{Y}})^{2}$ |
| $2000 / 01$ | 1.07 | 0.05 | 0.0025 | 1.05 | 0 | 0 |
| $2001 / 02$ | 1.06 | 0.04 | 0.0016 | 1.05 | 0 | 0 |
| $2002 / 03$ | 1.06 | 0.04 | 0.0016 | 01.02 | -0.03 | 0.0009 |
| $2003 / 04$ | 0.76 | -0.26 | 0.0676 | 1.01 | -0.04 | 0.0016 |
| $2004 / 05$ | 1.05 | 0.03 | 0.0009 | 1.07 | 0.02 | 0.0004 |
| $2005 / 06$ | 1.07 | 0.05 | 0.0025 | 1.07 | 0.02 | 0.0004 |
| $2006 / 07$ | 1.07 | 0.05 | 0.0025 | 1.07 | 0.02 | 0.0004 |
| Mean | 1.02 |  | 0.0792 | 1.05 |  | 0.0037 |
| $(\overline{\mathrm{X}})$ |  |  |  |  |  |  |

$$
\begin{array}{ll}
\text { S.D. }=\sqrt{\frac{\sum(\mathrm{Y}-\overline{\mathrm{Y}})^{2}}{\mathrm{~N}}} & \text { S.D. }=\sqrt{\frac{\sum(\mathrm{Y}-\overline{\mathrm{Y}})^{2}}{\mathrm{~N}}} \\
=\sqrt{\frac{0.0792}{7}}=0.106 & =\sqrt{\frac{0.0037}{7}}=0.023 \\
\text { C.V }=\frac{\mathrm{S} . \mathrm{D}}{\overline{\mathrm{X}}} \times 100 & \mathrm{CV}=\frac{\mathrm{S.D} .}{\overline{\mathrm{Y}}} \times 100 \\
=\frac{0.106}{1.02} \times 100 & =\frac{0.023}{1.05} \times 100 \\
=10.39 \% & =.19 \%
\end{array}
$$

## Appendix - 2

## Cash and Bank Balance to Current Deposit Ratio

| Year | Nabil |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ratio (X) | ( $\mathrm{X}-\overline{\mathrm{x}}$ ) | $(\mathrm{x}-\overline{\mathrm{X}})^{2}$ | Ratio (Y) | $(\mathrm{Y}-\overline{\mathrm{Y}}$ ) | $(\mathrm{Y}-\overline{\mathrm{Y}})^{2}$ |
| 2000/01 | 50.72 | 14.03 | 196.84 | 99.98 | 3.62 | 13.10 |
| 2001/02 | 27.11 | -9.58 | 91.78 | 95.19 | -1.17 | 1.37 |
| 2002/03 | 37.79 | 1.1 | 1.21 | 93.58 | -2.78 | 7.73 |
| 2003/04 | 28.51 | -8.18 | 66.91 | 82.42 | -13.94 | 194.32 |
| 2004/05 | 38.90 | 2.21 | 4.88 | 149.07 | 52.71 | 2778.34 |
| 2005/06 | 37.73 | 1.04 | 1.08 | 102.57 | 6.21 | 38.56 |
| 2006/07 | 36.09 | -0.6 | 0.36 | 51.68 | -44.68 | 1996.30 |
| $\begin{gathered} \text { Mean } \\ (\overline{\mathrm{X}}) \end{gathered}$ | 36.69 |  | 363.06 | 96.36 |  | 5029.74 |
| S.D $=\sqrt{ }$ <br> C.V $=\frac{7}{3}$ | $\begin{aligned} & \sqrt{\frac{\sum(\mathrm{Y}-\overline{\mathrm{Y}}}{\mathrm{N}}} \frac{\mathrm{C}}{\frac{63.06}{7}}=7.2 \\ & \frac{\mathrm{~S} . \mathrm{D}}{\overline{\mathrm{X}}} \times 100 \\ & \frac{20}{69} \times 100 \end{aligned}$ |  |  |  | $\overline{\bar{y})^{2}}$ $26.81$ |  |

## Appendix - 3

Cash and Bank Balance to Current Deposit Ratio

| Year | Nabil |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ratio $(\mathrm{X})$ | $(\mathrm{X}-\overline{\mathrm{X}})$ | $(\mathrm{X}-\overline{\mathrm{X}})^{2}$ | Ratio $(\mathrm{Y})$ | $(\mathrm{Y}-\overline{\mathrm{Y}})$ | $(\mathrm{Y}-\overline{\mathrm{Y}})^{2}$ |
| $2000 / 01$ | 22.71 | 10.7 | 114.49 | 55.96 | 7.22 | 52.13 |
| $2001 / 02$ | 10.43 | -1.58 | 2.50 | 59.55 | 10.81 | 116.86 |
| $2002 / 03$ | 14.51 | 2.5 | 6.25 | 42.07 | -6.67 | 44.48 |
| $2003 / 04$ | 9.94 | -2.07 | 4.29 | 51.81 | 3.07 | 9.42 |
| $2004 / 05$ | 8.05 | -3.96 | 15.68 | 66.39 | 17.65 | 311.52 |
| $2005 / 06$ | 10.23 | -1.78 | 3.17 | 41.87 | -6.87 | 47.20 |
| $2006 / 07$ | 8.22 | -3.79 | 14.36 | 22.5 | -26.24 | 688.54 |
| Mean | 12.01 |  | 160.74 | 48.74 |  | 1270.16 |
| $(\overline{\mathrm{X}})$ |  |  |  |  |  |  |

$$
\begin{array}{ll}
\text { S.D. }=\sqrt{\frac{\sum(\mathrm{Y}-\overline{\mathrm{Y}})^{2}}{\mathrm{~N}}} & \text { S.D. }=\sqrt{\frac{\sum(\mathrm{Y}-\overline{\mathrm{Y}})^{2}}{\mathrm{~N}}} \\
=\sqrt{\frac{160.74}{7}}=4.79 & =\sqrt{\frac{1270.16}{7}}=13.47 \\
\text { C.V }=\frac{\text { S.D }}{\overline{\mathrm{X}}} \times 100 & \text { CV }=\frac{\text { S.D. }}{\overline{\mathrm{Y}}} \times 100 \\
=\frac{4.79}{12.01} \times 100 & =\frac{1347}{48.74} \times 100 \\
=39.88 \% & =27.64 \%
\end{array}
$$

## Appendix - 4

Loan and Advances to Total Deposit Ratio

| Year | Nabil |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ratio (X) | $(\mathrm{X}-\overline{\mathrm{X}})$ | $(X-\bar{X})^{2}$ | Ratio (Y) | $(\mathrm{Y}-\overline{\mathrm{Y}})$ | $(\mathrm{Y}-\overline{\mathrm{Y}})^{2}$ |
| 2000/01 | 59.78 | 2.68 | 7.18 | 63.12 | -9.05 | 81.90 |
| 2001/02 | 61.16 | 4.06 | 16.48 | 67.64 | -4.53 | 20.52 |
| 2002/03 | 57.39 | 0.29 | 0.08 | 78.47 | 6.3 | 39.69 |
| 2003/04 | 52.55 | -4.55 | 20.70 | 63.34 | -8.83 | 77.97 |
| 2004/05 | 47.96 | -9.14 | 83.54 | 82.26 | 10.09 | 101.81 |
| 2005/06 | 60.34 | 3.24 | 10.50 | 73.52 | 1.35 | 1.82 |
| 2006/07 | 60.55 | 3.45 | 11.9 | 76.85 | 4.68 | 21.90 |
| $\begin{gathered} \text { Mean } \\ (\overline{\mathrm{X}}) \end{gathered}$ | 57.10 |  | 150.39 | 72.17 |  | 345.61 |
| $\sqrt{\frac{\sum(\mathrm{Y}-\overline{\mathrm{Y}})^{2}}{\mathrm{~N}}} \quad$ S.D. $=\sqrt{\frac{\sum(\mathrm{Y}-\overline{\mathrm{Y}})^{2}}{\mathrm{~N}}}$ |  |  |  |  |  |  |

$$
\begin{array}{ll}
\text { C.V }=\frac{\text { S.D }}{\bar{X}} \times 100 & \text { CV }=\frac{\text { S.D. }}{\bar{Y}} \times 100 \\
=\frac{4.64}{57.10} \times 100 & =\frac{7.03}{72.17} \times 100 \\
=8.13 \% & =9.74 \%
\end{array}
$$

## Appendix - 5 <br> Loan and Advances to Total Fixed Deposit Ratio

| Year | Nabil |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ratio (X) | ( $\mathrm{X}-\overline{\mathrm{X}}$ ) | $(\mathrm{x}-\overline{\mathrm{x}})^{2}$ | Ratio (Y) | ( $\mathrm{Y}-\overline{\mathrm{Y}}$ ) | $(\mathrm{Y}-\overline{\mathrm{Y}})^{2}$ |
| 2000/01 | 142.76 | -84.91 | 7209.71 | 299.15 | 129.82 | 16853.23 |
| 2001/02 | 169.25 | -58.42 | 3412.90 | 141.08 | -28.25 | 798.06 |
| 2002/03 | 138.96 | -88.71 | 7869.46 | 147.06 | -22.27 | 495.95 |
| 2003/04 | 108.56 | -119.11 | 14187.19 | 142.98 | -26.35 | 694.32 |
| 2004/05 | 303.97 | 76.3 | 5821.69 | 146.34 | -22.99 | 528.54 |
| 2005/06 | 360.20 | 132.53 | 17564.20 | 143.69 | -25.64 | 657.41 |
| 2006/07 | 369.98 | 142.31 | 20252.14 | 165.02 | -4.31 | 18.58 |
| $\begin{aligned} & \text { Mean } \\ & (\overline{\mathrm{X}}) \end{aligned}$ | 227.67 |  | 76317.29 | 169.33 |  | 20046.10 |
| $\sigma_{\mathrm{x}}$ <br> $=$ $\begin{aligned} & \mathrm{CV}= \\ & =\frac{11}{2} \\ & =45 \end{aligned}$ | $\begin{aligned} & \frac{\sqrt{\frac{\sum(\mathrm{x}-\overline{\mathrm{x}})}{\mathrm{N}}}}{\frac{6317.29}{7}}= \\ & \frac{\sigma_{\mathrm{x}}}{\overline{\mathrm{X}}} \times 100 \\ & \frac{4.42}{7.67} \times 100 \\ & 86 \% \end{aligned}$ | $4.42$ |  | $\begin{aligned} & y=\sqrt{\frac{\sum(\mathrm{Y}-}{\mathrm{N}}} \\ & \sqrt{\frac{20046.1}{7}} \\ & V=\frac{\sigma}{\overline{\mathrm{Y}}} \times 10 \\ & \frac{53.51}{169.33} \times 1 \\ & 31.6 \% \end{aligned}$ | $\begin{aligned} & \frac{\bar{y})^{2}}{} \\ & =53.51 \end{aligned}$ |  |

Appendix - 6
Loan and Advances to Total Saving Deposit Ratio

| Year | Nabil |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ratio $(\mathrm{X})$ | $(\mathrm{X}-\overline{\mathrm{X}})$ | $(\mathrm{X}-\overline{\mathrm{X}})^{2}$ | Ratio $(\mathrm{Y})$ | $(\mathrm{Y}-\overline{\mathrm{Y}})$ | $(\mathrm{Y}-\overline{\mathrm{Y}})^{2}$ |
| $2000 / 01$ | 251.23 | 77.33 | 5979.93 | 448.28 | 92.8 | 8611.84 |
| $2001 / 02$ | 172.66 | -1.24 | 1.54 | 376.63 | 21.15 | 447.32 |
| $2002 / 03$ | 176.73 | 2.83 | 8.01 | 344.28 | -11.2 | 125.44 |
| $2003 / 04$ | 169.29 | -4.61 | 21.25 | 395.70 | 40.22 | 1617.65 |
| $2004 / 05$ | 149.59 | -24.31 | 590.98 | 359.64 | 4.16 | 17.31 |
| $2005 / 06$ | 155.15 | -18.75 | 351.56 | 293.68 | -61.8 | 3819.24 |
| $2006 / 07$ | 142.62 | -31.28 | 978.44 | 270.77 | -84.71 | 7175.78 |
|  | 173.90 |  | 7931.71 | 355.48 |  | 21814.58 |
| Mean |  |  |  |  |  |  |
| $(\overline{\mathrm{X})}$ |  |  |  |  |  |  |

$$
\begin{array}{ll}
\sigma_{\mathrm{x}}=\sqrt{\frac{\sum(\mathrm{X}-\overline{\mathrm{X}})^{2}}{\mathrm{~N}}} & \sigma_{\mathrm{y}}=\sqrt{\frac{\sum(\mathrm{Y}-\overline{\mathrm{Y}})^{2}}{\mathrm{~N}}} \\
=\sqrt{\frac{7931.71}{7}}=33.66 & =\sqrt{\frac{21814}{7}}=55.82 \\
\mathrm{CV}=\frac{\sigma_{\mathrm{x}}}{\overline{\mathrm{X}}} \times 100 & \mathrm{CV}=\frac{{ }_{\mathrm{y}}^{\overline{\mathrm{Y}}}}{} \times 100 \\
=\frac{33.66}{173.90} \times 100 & =\frac{55.82}{355.48} \times 100 \\
=19.41 \% & =15.70 \%
\end{array}
$$

## Appendix - 7

Total Investment to Total Deposit Ratio

| Year | Nabil |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ratio (X) | ( $\mathrm{X}-\overline{\mathrm{x}}$ ) | $(\mathrm{x}-\overline{\mathrm{x}})^{2}$ | Ratio (Y) | (Y- $\overline{\mathrm{Y}}$ ) | $(\mathrm{Y}-\overline{\mathrm{Y}})^{2}$ |
| 2000/01 | 10.80 | -16.57 | 274.56 | 18.12 | 5.53 | 30.58 |
| 2001/02 | 14.83 | -12.54 | 157.25 | 4.55 | -8.04 | 64.64 |
| 2002/03 | 9.66 | -17.71 | 313.64 | 4.25 | -8.34 | 69.56 |
| 2003/04 | 17.26 | -10.11 | 102.21 | 5.51 | -7.08 | 50.13 |
| 2004/05 | 52.87 | 25.5 | 650.25 | 10.75 | -1.84 | 3.38 |
| 2005/06 | 44.85 | 17.48 | 305.55 | 18.51 | 5.92 | 35.05 |
| 2006/07 | 41.32 | 13.95 | 194.60 | 26.45 | 13.86 | 192.10 |
| Total | 191.59 |  | 1998.06 | 88.14 |  | 445.44 |
| $\begin{gathered} \text { Mean } \\ (\overline{\mathrm{X}}) \end{gathered}$ | 27.37 |  |  | 12.59 |  |  |
| $\begin{aligned} & \sigma_{\mathrm{x}}= \\ & = \\ & \mathrm{CV}= \\ & =\frac{1}{2} \\ & =61 \end{aligned}$ | $\begin{aligned} & \sqrt{\frac{\sum(\mathrm{X}-\overline{\mathrm{X}}}{\mathrm{N}}} \\ & \frac{998.06}{7} \\ & \frac{\sigma}{\frac{\mathrm{x}}{\overline{\mathrm{X}}} \times 100} \\ & \frac{89}{37} \times 100 \\ & 73 \% \end{aligned}$ |  |  | $\begin{aligned} & y=\sqrt{\frac{\sum(\mathrm{Y}-}{\mathrm{N}}} \\ & \sqrt{\frac{445.44}{7}}= \\ & V=\frac{\sigma}{\overline{\mathrm{Y}}} \times 10 \\ & \frac{7.93}{12.59} \times 10 \\ & 63.38 \% \end{aligned}$ | $\bar{Y})^{2}$ $7.93$ |  |

## Appendix - 8

Total Debt to Total Assets Ratio

| Year | Nabil |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ratio $(\mathrm{X})$ | $(\mathrm{X}-\overline{\mathrm{X}})$ | $(\mathrm{X}-\overline{\mathrm{X}})^{2}$ | Ratio $(\mathrm{Y})$ | $(\mathrm{Y}-\overline{\mathrm{Y}})$ | $(\mathrm{Y}-\overline{\mathrm{Y}})^{2}$ |


| $2000 / 01$ | 90 | 6 | 36 | 93 | 0 | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2001 / 02$ | 91 | 7 | 49 | 93 | 0 | 0 |
| $2002 / 03$ | 92 | 8 | 64 | 94 | 1 | 1 |
| $2003 / 04$ | 92 | 8 | 64 | 95 | 2 | 4 |
| $2004 / 05$ | 42 | -42 | 1764 | 92 | -1 | 1 |
| $2005 / 06$ | 92 | 8 | 64 | 92 | -1 | 1 |
| $2006 / 07$ | 91 | 7 | 49 | 93 | 0 | 0 |
| Total | 590 |  | 2090 | 652 |  | 7 |
| Mean | 84 |  |  | 93 |  |  |
| $(\bar{X})$ |  |  |  |  |  |  |

$$
\begin{array}{ll}
\sigma_{\mathrm{x}}=\sqrt{\frac{\sum(\mathrm{X}-\overline{\mathrm{X}}) 2}{\mathrm{~N}}} & \sigma_{\mathrm{y}}=\sqrt{\frac{\sum(\mathrm{Y}-\overline{\mathrm{Y}})^{2}}{\mathrm{~N}}} \\
=\sqrt{\frac{2090}{7}}=17.27 & =\sqrt{\frac{7}{7}}=1 \\
\mathrm{CV}=\frac{\sigma_{\mathrm{x}}}{\overline{\mathrm{X}}} \times 100 & \mathrm{CV}=\frac{\sigma \mathrm{y}}{\overline{\mathrm{Y}}} \times 100 \\
=\frac{17.27}{84} \times 100 & =\frac{1}{93} \times 100 \\
=20.57 \% & =1.08 \%
\end{array}
$$

## Appendix - 9

Total Debt to Total Equity Ratio (In..................)

| Year | Nabil |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ratio $(\mathrm{X})$ | $(\mathrm{X}-\overline{\mathrm{X}})$ | $(\mathrm{X}-\overline{\mathrm{X}})^{2}$ | Ratio $(\mathrm{Y})$ | $(\mathrm{Y}-\overline{\mathrm{Y}})$ | $(\mathrm{Y}-\overline{\mathrm{Y}})^{2}$ |
| $2000 / 01$ | 12 | 0 | 0 | 15 | -1.42 | 2.02 |
| $2001 / 02$ | 13 | 1 | 1 | 14 | -2.42 | 5.86 |
| $2002 / 03$ | 14 | 2 | 4 | 22 | 5.85 | 31.14 |
| $2003 / 04$ | 16 | 4 | 16 | 29 | 12.58 | 158.27 |
| $2004 / 05$ | 6 | -6 | 36 | 11 | -5.42 | 29.37 |
| $2005 / 06$ | 12 | 0 | 0 | 12 | -4.42 | 19.54 |
| $2006 / 07$ | 10 | -2 | 4 | 12 | -4.42 | 19.54 |
| Total | 83 |  | 51 | 115 |  | 265.72 |


| Mean <br> $(\overline{\mathrm{X}})$ | 11.88 |  |
| :--- | :--- | :--- |
| ${ }_{\mathrm{x}}=\sqrt{\frac{\sum(\mathrm{X}-\overline{\mathrm{X}}) 2}{\mathrm{~N}}}$ | $\sigma_{\mathrm{y}}=\sqrt{\frac{\sum(\mathrm{Y}-\overline{\mathrm{Y}})^{2}}{\mathrm{~N}}}$ |  |
|  | $=\sqrt{\frac{51}{7}}=2.70$ | $=\sqrt{\frac{265.72}{7}}=6.16$ |
|  |  |  |
| $\mathrm{CV}=\frac{\sigma_{\mathrm{x}}}{\overline{\mathrm{X}}} \times 100$ | $\mathrm{CV}=\frac{{ }_{\mathrm{y}}}{\overline{\mathrm{Y}}} \times 100$ |  |
| $=\frac{2.70}{11.88} \times 100$ | $=\frac{6.16}{16.42} \times 100$ |  |
| $=22.72 \%$ | $=37.52 \%$ |  |

## Appendix - 10

Invest Coverage Ratio (In times)

| Year | Nabil |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ratio $(\mathrm{X})$ | $(\mathrm{X}-\overline{\mathrm{X}})$ | $(\mathrm{X}-\overline{\mathrm{X}})^{2}$ | Ratio $(\mathrm{Y})$ | $(\mathrm{Y}-\overline{\mathrm{Y}})$ | $(\mathrm{Y}-\overline{\mathrm{Y}})^{2}$ |
| $2000 / 01$ | 1.69 | -0.52 | 0.27 | 1.34 | 0.09 | 0.01 |
| $2001 / 02$ | 1.98 | -0.23 | 0.05 | 1.08 | -0.17 | 0.03 |
| $2002 / 03$ | 2.14 | -0.07 | 0.01 | 1.31 | 0.06 | 0.004 |
| $2003 / 04$ | 1.82 | -0.39 | 0.15 | 1.18 | -0.07 | 0.005 |
| $2004 / 05$ | 1.59 | -0.62 | 0.38 | 1.20 | -0.05 | 0.003 |
| $2005 / 06$ | 2.94 | 0.73 | 0.53 | 1.24 | 0.01 | 0.0001 |
| $2006 / 07$ | 3.32 | 1.11 | 1.23 | 1.43 | 0.2 | 0.04 |
| Total | 15.84 |  | 2.63 | 7.78 |  | 0.088 |
| Mean | 2.21 |  |  | 1.25 |  |  |
| $(\overline{\mathrm{X})}$ |  |  |  |  |  |  |

$$
\begin{aligned}
& \sigma_{\mathrm{x}}=\sqrt{\frac{\sum(\mathrm{X}-\overline{\mathrm{X}}) 2}{\mathrm{~N}}} \\
& =\sqrt{\frac{2.63}{7}}=0.61 \\
& \mathrm{CV}=\frac{\sigma_{\mathrm{x}}}{\overline{\mathrm{X}}} \times 100
\end{aligned}
$$

$$
\begin{aligned}
& \begin{aligned}
& \sigma_{\mathrm{y}}= \sqrt{\frac{\sum(\mathrm{Y}-\overline{\mathrm{Y}})^{2}}{\mathrm{~N}}} \\
&=\sqrt{\frac{0.088}{7}}=0.11 \\
& \mathrm{CV}=\frac{\sigma_{\mathrm{y}}}{\overline{\mathrm{Y}}} \times 100
\end{aligned}
\end{aligned}
$$

$$
\begin{array}{ll}
=\frac{0.61}{2.21} \times 100 & =\frac{0.11}{1.25} \times 100 \\
=27.73 \% & =8.97 \%
\end{array}
$$

## Appendix - 11

## Return on Total Assets Ratio (In Percentage)

| Year | Nabil |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ratio $(\mathrm{X})$ | $(\mathrm{X}-\overline{\mathrm{X}})$ | $(\mathrm{X}-\overline{\mathrm{X}})^{2}$ | Ratio $(\mathrm{Y})$ | $(\mathrm{Y}-\overline{\mathrm{Y}})$ | $(\mathrm{Y}-\overline{\mathrm{Y}})^{2}$ |
| $2000 / 01$ | 1.55 | -0.47 | 0.22 | 1.43 | 0.81 | 0.66 |
| $2001 / 02$ | 2.14 | 0.12 | 0.014 | 0.34 | -0.28 | 0.08 |
| $2002 / 03$ | 2.14 | 0.12 | 0.014 | 0.46 | -0.16 | 0.03 |
| $2003 / 04$ | 1.54 | -0.48 | 0.23 | 0.17 | -0.45 | 0.203 |
| $2004 / 05$ | 1.54 | 0.48 | 0.23 | 0.58 | -0.04 | 0.002 |
| $2005 / 06$ | 2.51 | 0.49 | 0.24 | 0.64 | 0.02 | 0.0004 |
| $2006 / 07$ | 2.72 | 0.70 | 0.49 | 0.72 | 0.1 | 0.01 |
| Total | 14.14 |  | 1.4406 | 4.34 |  | 0.9746 |
| Mean | 2.02 |  |  | 0.62 |  |  |
| $(\overline{\mathrm{X}})$ |  |  |  |  |  |  |

$$
\begin{array}{ll}
\sigma_{\mathrm{x}}=\sqrt{\frac{\sum(\mathrm{X}-\overline{\mathrm{X}})_{2}}{\mathrm{~N}}} & \sigma_{\mathrm{y}}=\sqrt{\frac{\sum(\mathrm{Y}-\overline{\mathrm{Y}})^{2}}{\mathrm{~N}}} \\
=\sqrt{\frac{1.4406}{7}}=0.45 & =\sqrt{\frac{0.9746}{7}}=0.37 \\
\mathrm{CV}=\frac{\sigma_{\mathrm{x}}}{\overline{\mathrm{X}}} \times 100 & \mathrm{CV}=\frac{\sigma_{\mathrm{y}}^{\overline{\mathrm{Y}}} \times 100}{} \\
=\frac{0.45}{2.02} \times 100 & =\frac{0.37}{0.62} \times 100 \\
=22.46 \% & =60.18 \%
\end{array}
$$

## Appendix - 12

Return on Shareholder Equity Ratio (In Percentage)

| Year | Nabil |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ratio $(\mathrm{X})$ | $(\mathrm{X}-\overline{\mathrm{X}})$ | $(\mathrm{X}-\overline{\mathrm{X}})^{2}$ | Ratio $(\mathrm{Y})$ | $(\mathrm{Y}-\overline{\mathrm{Y}})$ | $(\mathrm{Y}-\overline{\mathrm{Y}})^{2}$ |
| $2000 / 01$ | 21.09 | -7.25 | 52.56 | 22.48 | 10.95 | 119.90 |
| $2001 / 02$ | 30.36 | 2.02 | 4.08 | 5.22 | -6.31 | 39.82 |
| $2002 / 03$ | 33.44 | 5.1 | 26.01 | 22.25 | 10.72 | 114.92 |
| $2003 / 04$ | 27.41 | -0.93 | 0.86 | 5.24 | -6.29 | 39.56 |
| $2004 / 05$ | 23.69 | -4.65 | 21.62 | 7.28 | -4.25 | 18.66 |
| $2005 / 06$ | 31.67 | 3.33 | 11.09 | 8.55 | -2.98 | 8.88 |
| $2006 / 07$ | 30.67 | 2.39 | 5.71 | 9.71 | -1.82 | 3.31 |


| Total | 198.39 | 121.94 | 80.73 | 344.46 |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Mean } \\ & (\overline{\mathrm{X}}) \end{aligned}$ | 28.34 |  | 11.53 |  |
|  | $\begin{aligned} & \frac{\Sigma(\mathrm{X}-\overline{1}}{\mathrm{N}} \\ & \frac{1.94}{7}= \\ & \frac{\mathrm{x}}{\mathrm{x}} \times 100 \\ & \frac{7}{3} \times 100 \\ & 3 \% \end{aligned}$ |  | $\frac{344.4}{7}$ $=\frac{\sigma}{\bar{Y}} \times$ $\frac{7.02}{1.53} \times$ $0.84 \%$ |  |

## Appendix - 13

Return on Capital Employed Ratio (In Percentage)

| Year | Nabil |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ratio (X) | ( $\mathrm{X}-\overline{\mathrm{x}}$ ) | $(\mathrm{x}-\overline{\mathrm{X}})^{2}$ | Ratio (Y) | $(\mathrm{Y}-\overline{\mathrm{Y}})$ | $(\mathrm{Y}-\overline{\mathrm{Y}})^{2}$ |
| 2000/01 | 20.11 | -3.87 | 14.98 | 22.48 | 11.84 | 140.19 |
| 2001/02 | 28.52 | 4.54 | 20.61 | 5.22 | -5.42 | 29.37 |
| 2002/03 | 31.43 | 7.45 | 55.50 | 22.14 | 11.5 | 132.25 |
| 2003/04 | 25.53 | 1.55 | 2.40 | 5.18 | -5.46 | 29.81 |
| 2004/05 | 17.37 | -6.61 | 43.69 | 3.64 | -7 | 49 |
| 2005/06 | 18.29 | -5.69 | 32.38 | 7.67 | -2.97 | 8.82 |
| 2006/07 | 26.61 | 2.63 | 6.92 | 8.18 | -2.46 | 6.05 |
| Total | 167.86 |  | 176.48 | 74.51 |  | 395.496 |
| $\begin{gathered} \text { Mean } \\ (\overline{\mathrm{X}}) \\ \hline \end{gathered}$ | 23.98 |  |  | 10.64 |  |  |
| $\begin{aligned} & \sigma_{\mathrm{x}}=\sqrt{\frac{\sum(\mathrm{X}-\overline{\mathrm{X}}) 2}{\mathrm{~N}}} \\ & =\sqrt{\frac{176.48}{7}}=5.02 \end{aligned}$ |  |  | $\sqrt{\frac{\sum(\mathrm{Y}-\overline{\mathrm{Y}})^{2}}{\mathrm{~N}}}$ |  |  |  |
| $\frac{\sigma_{\mathrm{x}}}{\overline{\mathrm{X}}} \times 100$ |  |  | $\mathrm{CV}=\frac{\sigma}{\overline{\mathrm{Y}}} \times 100$ |  |  |  |

$$
\begin{array}{ll}
=\frac{5.02}{23.98} \times 100 & =\frac{7.52}{10.64} \times 100 \\
=20.94 \% & =70.64 \%
\end{array}
$$

## Appendix - 14

Return on Total Deposit Ratio (In Percentage)

| Year | Nabil |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ratio (X) | ( $\mathrm{X}-\overline{\mathrm{X}}$ ) | $(\mathrm{x}-\overline{\mathrm{X}})^{2}$ | Ratio(Y) | $(\mathrm{Y}-\overline{\mathrm{Y}}$ ) | $(\mathrm{Y}-\overline{\mathrm{Y}})^{2}$ |
| 2000/01 | 2.00 | -0.46 | 0.212 | 1.57 | 0.78 | 0.608 |
| 2001/02 | 2.75 | 0.29 | 0.084 | 0.38 | -0.41 | 0.168 |
| 2002/03 | 2.57 | 0.11 | 0.012 | 1.10 | 0.31 | 0.096 |
| 2003/04 | 1.83 | -0.63 | 0.397 | 0.18 | -0.61 | 0.372 |
| 2004/05 | 1.75 | -0.71 | 0.504 | 0.73 | -0.61 | 0.004 |
| 2005/06 | 3.09 | 0.63 | 0.397 | 0.75 | -0.06 | 0.002 |
| 2006/07 | 3.22 | 0.76 | 0.578 | 0.85 | -0.04 | 0.004 |
| Total | 17.21 |  | 2.183 | 5.56 | 0.06 | 1.1254 |
| $\begin{gathered} \text { Mean } \\ (\overline{\mathrm{X}}) \\ \hline \end{gathered}$ | 2.46 |  |  | 0.79 |  |  |
| $=$ <br> CV $\begin{aligned} & =\frac{0}{2} \\ & =2 \end{aligned}$ | $\begin{aligned} & \sqrt{\frac{\sum(\mathrm{x}-\overline{\mathrm{x}})}{\mathrm{N}}} \\ & \frac{183}{7}=0.5 \\ & \frac{\sigma^{\mathrm{x}}}{\overline{\mathrm{X}}} \times 100 \\ & \frac{6}{6} \times 100 \\ & 70 \% \end{aligned}$ |  |  | $\begin{aligned} & =\sqrt{\frac{\sum(\mathrm{Y}-}{\mathrm{N}}} \\ & \sqrt{\frac{1.1254}{7}}= \\ & V=\frac{\mathrm{y}}{\overline{\mathrm{Y}}} \times 10 \\ & \frac{0.40}{0.79} \times 100 \\ & 50.75 \% \end{aligned}$ | $\bar{y})^{2}$ $0.40$ |  |

## Appendix - 15

Total Interest Earned to Total Assets Ratio (In Percentage)

| Year | Nabil |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ratio $(\mathrm{X})$ | $(\mathrm{X}-\overline{\mathrm{X}})$ | $(\mathrm{X}-\overline{\mathrm{X}})^{2}$ | Ratio $(\mathrm{Y})$ | $(\mathrm{Y}-\overline{\mathrm{Y}})$ | $(\mathrm{Y}-\overline{\mathrm{Y}})^{2}$ |


| $2000 / 01$ | 8.01 | 1.25 | 1.56 | 8.85 | 1.82 | 3.312 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2001 / 02$ | 7.26 | 0.5 | 0.25 | 8.38 | 1.35 | 1.823 |
| $2002 / 03$ | 6.83 | 0.07 | 0.005 | 8.46 | 1.43 | 2.045 |
| $2003 / 04$ | 6.73 | 0.07 | 0.001 | 6.01 | -1.02 | 1.040 |
| $2004 / 05$ | 6.35 | -0.03 | 0.168 | 5.69 | -1.34 | 1.797 |
| $2005 / 06$ | 6.15 | -0.41 | 0.372 | 6.21 | -0.82 | 0.672 |
| $2006 / 07$ | 5.98 | -0.61 | 0.608 | 5.58 | -1.45 | 2.103 |
| Total | 47.31 | -0.78 | 2.964 | 49.18 |  | 12.792 |
|  |  |  |  |  |  |  |
| Mean | 6.76 |  |  | 7.03 |  |  |
| $(\bar{X})$ |  |  |  |  |  |  |

$$
\begin{array}{ll}
\sigma_{\mathrm{x}}=\sqrt{\frac{\sum(\mathrm{X}-\overline{\mathrm{X}}) 2}{\mathrm{~N}}} & \sigma_{\mathrm{y}}=\sqrt{\frac{\sum(\mathrm{Y}-\overline{\mathrm{Y}})^{2}}{\mathrm{~N}}} \\
=\sqrt{\frac{2.964}{7}}=0.65 & =\sqrt{\frac{12.792}{7}}=1.35 \\
\mathrm{CV}=\frac{\sigma_{\mathrm{x}}}{\overline{\mathrm{X}}} \times 100 & \mathrm{CV}=\frac{\sigma_{\mathrm{y}}^{\overline{\mathrm{Y}}} \times 100}{} \\
=\frac{0.65}{6.76} \times 100 & =\frac{1.35}{7.02} \times 100 \\
=9.62 \% & =19.20 \%
\end{array}
$$

## Appendix - 16

Total Interest Expenses to Total Interest Income Ratio

| Year | Nabil |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ratio $(\mathrm{X})$ | $(\mathrm{X}-\overline{\mathrm{X}})$ | $(\mathrm{X}-\overline{\mathrm{X}})^{2}$ | Ratio $(\mathrm{Y})$ | $(\mathrm{Y}-\overline{\mathrm{Y}})$ | $(\mathrm{Y}-\overline{\mathrm{Y}})^{2}$ |
| $2000 / 01$ | 48.23 | 8.13 | 66.10 | 65.95 | 1.04 | 1.08 |
| $2001 / 02$ | 44.77 | 4.67 | 21.81 | 77.02 | 12.11 | 146.65 |
| $2002 / 03$ | 41.35 | 1.25 | 1.56 | 64.40 | -0.51 | 0.26 |
| $2003 / 04$ | 45.65 | 5.55 | 30.80 | 61.13 | -3.78 | 14.29 |
| $2004 / 05$ | 41.24 | 1.14 | 1.30 | 72.20 | 7.29 | 53.14 |
| $2005 / 06$ | 31.18 | -8.92 | 79.57 | 62.12 | -2.79 | 7.78 |
| $2006 / 07$ | 28.25 | -11.85 | 140.42 | 51.58 | -13.33 | 177.69 |
| Total | 280.67 |  | 341.56 | 454.4 |  | 400.90 |
| (4ean | 40.10 |  |  | 64.91 |  |  |
| M $)$ |  |  |  |  |  |  |

$$
\sigma_{x}=\sqrt{\frac{\sum(\mathrm{X}-\overline{\mathrm{X}}) 2}{\mathrm{~N}}} \quad \quad \sigma_{\mathrm{y}}=\sqrt{\frac{\sum(\mathrm{Y}-\overline{\mathrm{Y}})^{2}}{\mathrm{~N}}}
$$

$$
\begin{aligned}
& =\sqrt{\frac{341.56}{7}}=6.98 \\
& \mathrm{CV}=\frac{\sigma_{\mathrm{x}}}{\overline{\mathrm{X}}} \times 100 \\
& =\frac{6.98}{40.10} \times 100 \\
& =17.42 \%
\end{aligned}
$$

$$
=\sqrt{\frac{400.90}{7}}=7.57
$$

$$
\mathrm{CV}=\frac{\sigma_{\mathrm{y}}}{\overline{\mathrm{Y}}} \times 100
$$

$$
=\frac{7.57}{64.91} \times 100
$$

## Appendix - 17

Commission and Discount Income to Total Income Ratio

| Year | Nabil |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ratio $(\mathrm{X})$ | $(\mathrm{X}-\overline{\mathrm{X}})$ | $(\mathrm{X}-\overline{\mathrm{X}})^{2}$ | Ratio $(\mathrm{Y})$ | $(\mathrm{Y}-\overline{\mathrm{Y}})$ | $(\mathrm{Y}-\overline{\mathrm{Y}})^{2}$ |
| $2000 / 01$ | 8.01 | -2.13 | 4.54 | 5.30 | -0.72 | 0.518 |
| $2001 / 02$ | 10.38 | 0.24 | 0.06 | 6.01 | -0.01 | 0.0001 |
| $2002 / 03$ | 16.66 | 6.52 | 42.510 .65 | 6.90 | 0.88 | 0.774 |
| $2003 / 04$ | 9.33 | -0.81 | 10.05 | 6.41 | 0.39 | 0.152 |
| $2004 / 05$ | 6.97 | -3.17 | 0.0004 | 7.19 | 1.17 | 1.369 |
| $2005 / 06$ | 10.12 | -0.02 | 0.372 | 5.29 | -0.73 | 0.532 |
| $2006 / 07$ | 9.53 | -0.61 | 58.18 | 5.02 | -1 | 1.00 |
| Total | 71 |  |  | 42.12 |  | 4.346 |
| Mean | 10.14 |  |  | 6.02 |  |  |
| $(\overline{\mathrm{X}})$ |  |  |  |  |  |  |

$$
\begin{array}{ll}
\sigma_{\mathrm{x}}=\sqrt{\frac{\sum(\mathrm{X}-\overline{\mathrm{X}}) 2}{\mathrm{~N}}} & \\
=\sqrt{\frac{58.18}{7}}=2.88 & =\sqrt{\frac{\sum(\mathrm{Y}-\overline{\mathrm{Y}})^{2}}{\mathrm{~N}}} \\
\mathrm{CV}=\frac{\sigma_{\mathrm{x}}}{\overline{\mathrm{X}}} \times 100 & \mathrm{CV}=\frac{\sigma_{\mathrm{y}}}{\overline{\mathrm{Y}}} \times 100 \\
=\frac{2.88}{10.14} \times 100 & =\frac{0.79}{6.02} \times 100 \\
=28.43 \% & =13.08 \%
\end{array}
$$

## Appendix - 18

Total Staff Expenses to Total Income Ratio

| Year | Nabil |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ratio $(\mathrm{X})$ | $(\mathrm{X}-\overline{\mathrm{X}})$ | $(\mathrm{X}-\overline{\mathrm{X}})^{2}$ | Ratio $(\mathrm{Y})$ | $(\mathrm{Y}-\overline{\mathrm{Y}})$ | $(\mathrm{Y}-\overline{\mathrm{Y}})^{2}$ |
| $2000 / 01$ | 6.33 | -3.3 | 10.89 | 2.45 | -1.89 | 3.57 |
| $2001 / 02$ | 7.74 | -1.89 | 3.57 | 3.12 | -1.22 | 1.48 |
| $2002 / 03$ | 7.48 | -2.15 | 4.62 | 3.61 | -0.73 | 0.53 |
| $2003 / 04$ | 9.27 | -0.36 | 0.13 | 4.65 | 0.31 | 0.09 |
| $2004 / 05$ | 8.83 | -0.8 | 0.64 | 5.24 | 0.90 | 0.81 |
| $2005 / 06$ | 14.75 | 5.12 | 26.21 | 5.96 | 1.62 | 2.62 |
| $2006 / 07$ | 12.68 | 3.05 | 9.30 | 5.32 | 0.98 | 0.96 |
| Total | 67.38 |  | 55.36 | 30.35 |  | 10.06 |
| Mean | 9.63 |  |  | 4.34 |  |  |
| $(\overline{\mathrm{X}})$ |  |  |  |  |  |  |

$$
\begin{array}{ll}
\sigma_{\mathrm{x}}=\sqrt{\frac{\sum(\mathrm{X}-\overline{\mathrm{X}})_{2}}{\mathrm{~N}}} & \sigma_{\mathrm{y}}=\sqrt{\frac{\sum(\mathrm{Y}-\overline{\mathrm{Y}})^{2}}{\mathrm{~N}}} \\
=\sqrt{\frac{55.36}{7}}=2.81 & =\sqrt{\frac{10.06}{7}}=1.20 \\
\mathrm{CV}=\frac{\sigma_{\mathrm{x}}}{\overline{\mathrm{X}}} \times 100 & \mathrm{CV}=\frac{{ }^{\mathrm{y}}}{\overline{\mathrm{Y}}} \times 100 \\
=\frac{2.81}{9.63} \times 100 & =\frac{1.20}{4.34} \times 100 \\
=29.20 \% & =27.62 \%
\end{array}
$$

## Appendix - 19

Total Exchange Income to Total Income Ratio

| Year | Nabil |  |  | NSBIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ratio $(\mathrm{x})$ | $(\mathrm{X}-\overline{\mathrm{X}})$ | $(\mathrm{X}-\overline{\mathrm{X}})^{2}$ | Ratio $(\mathrm{Y})$ | $(\mathrm{Y}-\overline{\mathrm{Y}})$ | $(\mathrm{Y}-\overline{\mathrm{Y}})^{2}$ |
| $2000 / 01$ | 11.20 | 1.09 | 1.188 | 1.88 | -2.31 | 5.336 |
| $2001 / 02$ | 9.57 | -0.54 | 0.292 | 0.39 | -3.8 | 14.44 |
| $2002 / 03$ | 9.33 | -0.78 | 0.608 | 4.80 | 0.61 | 0.372 |
| $2003 / 04$ | 10.13 | 0.02 | 0.0004 | 5.59 | 1.4 | 1.96 |
| $2004 / 05$ | 9.40 | -0.71 | 0.504 | 8.36 | 4.17 | 17.38 |
| $2005 / 06$ | 10.09 | -0.002 | 0.0004 | 3.27 | -0.92 | 0.846 |
| $2006 / 07$ | 11.03 | 0.92 | 0.846 | 5.01 | 0.82 | 0.672 |
| Total | 70.75 |  | 3.439 | 29.3 |  |  |


| Mean <br> $(\overline{\mathrm{X}})$ | 10.11 |  |
| :--- | :--- | :--- |

## Appendix - 20 (A)

Calculation of Correlation Between Debt and NPAT of Nabil Let Debt $=X$ and Net Profit after tax $($ NAPT $)=Y$.

| Year | x | y | $\mathrm{dx}=$ <br> $(\mathrm{X}-\overline{\mathrm{X}})$ | dy <br> $=(\mathrm{Y}-\overline{\mathrm{Y}})$ | $\mathrm{dx}^{2}$ | $\mathrm{dy}^{2}$ | $\mathrm{dx.dy}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2000 / 01$ | 101.72 | 1.74 | -27.97 | -1.41 | 782.32 | 1.98 | 39.44 |
| $2001 / 02$ | 113.06 | 2.66 | -16.63 | -0.49 | 276.56 | 0.24 | 8.15 |
| $2002 / 03$ | 140.40 | 3.29 | 10.71 | 0.14 | 114.70 | 0.02 | 1.50 |
| $2003 / 04$ | 173.04 | 2.91 | 43.35 | -0.24 | 1879.22 | 0.06 | -10.40 |
| $2004 / 05$ | 74.37 | 2.71 | -55.32 | -0.44 | 3060.30 | 0.19 | 24.34 |
| $2005 / 06$ | 152.48 | 4.16 | 22.79 | 1.01 | 519.38 | 10.2 | 23.02 |
| $2006 / 07$ | 152.63 | 4.55 | 22.94 | 1.4 | 526.24 | 1.96 | 32.12 |
|  | 907.7 | 22.02 |  |  | 7158.72 | 5.47 | 118.17 |
|  | $\Sigma \mathrm{x}$ | $\Sigma \mathrm{y}$ |  |  | $\Sigma \mathrm{dx}^{2}$ | $\Sigma \mathrm{dy}^{2}$ | $\Sigma \mathrm{dx.dy}$ |

We know, $\bar{X}=\frac{\sum x}{N}=\frac{907.7}{7}=129.69 \quad \bar{Y}=\frac{\sum y}{N}=\frac{22.02}{7}=3.15$

$$
r \times y=\frac{\sum d x d y}{\sqrt{\sum d x^{2} \times \sum d y^{2}}}=\frac{118.17}{\sqrt{7158.72 \times 5.47}}=0.58
$$

P.E $=0.6745 \times \frac{1-r^{2}}{\sqrt{n}}=0.6745 \times \frac{1-(0.58)^{2}}{\sqrt{7}}=0.17$

## Appendix - 20 (B)

Calculation of Correlation Between Debt and NPAT of NSBIBL

| Year | x | y | $\mathrm{dx}=$ <br> $(\mathrm{X}-\overline{\mathrm{X}})$ | dy <br> $=(\mathrm{Y}-\overline{\mathrm{Y}})$ | $\mathrm{dx}^{2}$ | $\mathrm{dy}^{2}$ | $\mathrm{dx.dy}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2000 / 01$ | 38.51 | 0.58 | -20.82 | 0.17 | 433.47 | 0.030 | -3.54 |
| $2001 / 02$ | 44.87 | 0.16 | -14.46 | -0.25 | 209.09 | 0.062 | 3.62 |
| $2002 / 03$ | 48.81 | 0.50 | -10.52 | 0.09 | 110.67 | 0.008 | -0.95 |
| $2003 / 04$ | 70.46 | 0.12 | 11.33 | -0.29 | 123.87 | 0.084 | -3.29 |
| $2004 / 05$ | 64.60 | 0.40 | 5.27 | -0.01 | 27.77 | 0.0001 | -0.05 |
| $2005 / 06$ | 69.96 | 0.48 | 10.63 | 0.07 | 113.00 | 0.005 | 0.74 |
| $2006 / 07$ | 78.13 | 0.60 | 18.80 | 0.19 | 353.44 | 0.036 | 3.57 |


|  | 415.34 | 2.84 |  |  | 1371.31 | 0.2247 | 0.1605 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\Sigma \mathrm{x}$ | $\Sigma \mathrm{y}$ |  |  | $\Sigma \mathrm{dx}^{2}$ | $\Sigma \mathrm{dy}^{2}$ | $\Sigma \mathrm{dx} . \mathrm{dy}$ |

We know, $\bar{X}=\frac{\sum x}{N}=\frac{415.34}{7}=59.33, \quad \bar{Y}=\frac{\sum y}{N}=\frac{2.84}{7}=0.41$
$r \times y=\frac{\sum d x d y}{\sqrt{\sum d x^{2} \times \sum d y^{2}}}=\frac{0.1605}{\sqrt{1371.31 \times 0.2247}}=0.009$
$P . E=0.6745 \times \frac{1-r^{2}}{\sqrt{n}}=0.6745 \times \frac{1-(0.009)^{2}}{\sqrt{7}}=0.25$

## Appendix - 21 (A)

Correlation Between Loan and Advances and Total Deposit of Nabil

| Year | LA (x) | TD (y) | $\mathrm{dx}=$ <br> $(\mathrm{x}-\overline{\mathrm{X}})$ | dy <br> $=(\mathrm{Y}-\overline{\mathrm{Y}})$ | $\mathrm{dx}^{2}$ | $\mathrm{dy}^{2}$ | $\mathrm{dx.dy}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2000 / 01$ | 5.22 | 8.73 | -2.03 | -4.11 | 4.121 | 16.892 | 8.343 |
| $2001 / 02$ | 5.78 | 9.46 | -1.47 | -3.38 | 2.161 | 11.424 | 4.968 |
| $2002 / 03$ | 7.33 | 12.78 | 0.08 | -0.06 | 0.005 | 0.004 | 0.005 |
| $2003 / 04$ | 8.32 | 15.84 | 1.07 | 3.00 | 1.145 | 9.00 | 3.210 |
| $2004 / 05$ | 7.43 | 15.50 | 0.18 | 2.66 | 0.032 | 7.076 | 0.479 |
| $2005 / 06$ | 8.11 | 13.45 | 0.86 | 0.61 | 0.739 | 0.372 | 0.525 |
| $2006 / 07$ | 8.54 | 14.12 | 1.29 | 1.28 | 1.664 | 1.638 | 1.651 |
|  | 50.73 | 89.88 |  |  | 9.867 | 46.406 | 19.171 |
|  | $\Sigma \mathrm{x}$ | $\Sigma \mathrm{y}$ |  |  | $\Sigma \mathrm{dx}^{2}$ | $\sum \mathrm{dy}^{2}$ | $\sum \mathrm{dx} . \mathrm{dy}$ |

We know, $\bar{X}=\frac{\sum x}{N}=\frac{50.73}{7}=7.25 \quad \bar{Y}=\frac{\sum y}{N}=\frac{89.88}{7}=12.84$
$r \times y=\frac{\sum d x d y}{\sqrt{\sum d x^{2} \times \sum d y^{2}}}=\frac{19.171}{\sqrt{9.867 \times 46.406}}=0.89$
$P . E=0.6745 \times \frac{1-r^{2}}{\sqrt{n}}=0.6745 \times \frac{1-(0.89)^{2}}{\sqrt{7}}=0.053$

## Appendix - 21 (B)

Correlation Between Loan and Advances and Total Deposit of NSBIBL

| Year | LA (x) | TD (y) | $\mathrm{dx}=$ <br> $(\mathrm{X}-\overline{\mathrm{X}})$ | dy <br> $(\mathrm{Y}-\overline{\mathrm{Y}})$ | $\mathrm{dx}^{2}$ | $\mathrm{dy}^{2}$ | $\mathrm{dx.dy}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2000 / 01$ | $3-2.36$ | 3.74 | -1.64 | -1.77 | 2.689 | 3.133 | 2.903 |
| $2001 / 02$ | 2.96 | 4.38 | -1.04 | -1.13 | 1.081 | 1.276 | 1.175 |


| $2002 / 03$ | 3.56 | 4.53 | -0.44 | -0.98 | 0.194 | 0.960 | 0.431 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2003 / 04$ | 4.19 | 6.61 | 0.19 | 1.1 | 0.036 | 1.210 | 0.209 |
| $2004 / 05$ | 4.58 | 5.57 | 0.58 | 0.06 | 0.336 | 0.004 | 0.035 |
| $2005 / 06$ | 4.79 | 6.52 | 0.79 | 1.01 | 0.624 | 1.020 | 0.789 |
| $2006 / 07$ | 5.53 | 7.19 | 1.53 | 1.68 | 2.341 | 2.822 | 2.570 |
|  | 27.97 | 38.54 |  |  | 7.301 | 10.425 | 8.121 |
|  | $\sum \mathrm{x}$ | $\sum \mathrm{y}$ |  |  | $\sum \mathrm{dx}^{2}$ | $\sum \mathrm{dy}^{2}$ | $\sum \mathrm{dx.dy}$ |
|  |  |  |  |  |  |  |  |

We know, $\bar{X}=\frac{\sum x}{N}=\frac{27.97}{7}=4.00 \quad \bar{Y}=\frac{\sum y}{N}=\frac{38.54}{7}=5.51$
$r \times y=\frac{\sum d x d y}{\sqrt{\sum d x^{2} \times \sum d y^{2}}}=\frac{8.121}{\sqrt{7.301 \times 10.425}}=0.93$
$P . E=0.6745 \times \frac{1-r^{2}}{\sqrt{n}}=0.6745 \times \frac{1-(0.93)^{2}}{\sqrt{7}}=0.034$

## Appendix - 22 (A)

Calculation of Correlation Between Cash and Bank Balance and Current Liabilities of Nabil

| Year | CB (x) | CL (y) | dx $=$ <br> $(\mathrm{X}-\overline{\mathrm{X}})$ | dy <br> $(\mathrm{Y}-\overline{\mathrm{Y}})$ | $\mathrm{dx}^{2}$ | $\mathrm{dy}^{2}$ | $\mathrm{dx.dy}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2000 / 01$ | 1.15 | 10.13 | 0.18 | -4.09 | 0.032 | 16.728 | -0.736 |
| $2001 / 02$ | 0.63 | 11.25 | -0.34 | -2.97 | 0.116 | 8.821 | 1.010 |
| $2002 / 03$ | 1.08 | 13.97 | 0.11 | -0.25 | 0.012 | 0.062 | -0.027 |
| $2003 / 04$ | 0.81 | 17.22 | -0.06 | 3.00 | 0.004 | 9.000 | -0.180 |
| $2004 / 05$ | 1.05 | 16.48 | 0.08 | 2.26 | 0.006 | 5.107 | 0.181 |
| $2005 / 06$ | 1.14 | 15.25 | 0.17 | 1.03 | 0.029 | 1.061 | 0.175 |
| $2006 / 07$ | 0.97 | 15.26 | 0 | 1.04 | 0.00 | 1.082 | 0 |
|  | 6.83 | 99.56 |  |  | 0.199 | 41.861 | 0.423 |
|  | $\Sigma \mathrm{x}$ | $\Sigma \mathrm{y}$ |  |  | $\sum \mathrm{dx}^{2}$ | $\sum \mathrm{dy}^{2}$ | $\sum \mathrm{dx.dy}$ |

We know, $\bar{X}=\frac{\sum x}{N}=\frac{6.83}{7}=0.97$

$$
\bar{Y}=\frac{\sum y}{N}=\frac{99.56}{7}=14.22
$$

$r \times y=\frac{\sum d x d y}{\sqrt{\sum d x^{2} \times \sum d y^{2}}}=\frac{0.423}{\sqrt{0.199 \times 41.861}}=0.15$

$$
P . E=0.6745 \times \frac{1-r^{2}}{\sqrt{n}}=0.6745 \times \frac{1-(0.15)^{2}}{\sqrt{7}}=0.25
$$

## Appendix - 22 (B)

Correlation Between Cash and Bank Balance and Current Liabilities of NSBIBL

| Year | CB (x) | CL (y) | $\mathrm{dx}=$ <br> $(\mathrm{X}-\overline{\mathrm{X}})$ | dy <br> $=(\mathrm{Y}-\overline{\mathrm{Y}})$ | $\mathrm{dx}^{2}$ | $\mathrm{dy}^{2}$ | $\mathrm{dx.dy}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2000 / 01$ | 0.74 | 3.85 | -0.51 | -2.08 | 0.260 | 4.326 | 1.061 |
| $2001 / 02$ | 1.36 | 4.48 | 0.11 | -1.45 | 0.012 | 2.102 | -0.159 |
| $2002 / 03$ | 0.89 | 4.90 | -0.36 | -1.03 | 0.130 | 1.061 | 0.371 |
| $2003 / 04$ | 1.94 | 7.04 | 0.69 | 1.11 | 0.476 | 1.232 | 0.766 |
| $2004 / 05$ | 1.62 | 6.46 | 0.37 | 0.53 | 0.137 | 0.281 | 0.196 |
| $2005 / 06$ | 1.33 | 6.99 | 0.08 | 1.06 | 0.006 | 1.1224 | 0.085 |
| $2006 / 07$ | 0.86 | 7.81 | -0.39 | 1.88 | 0.152 | 3.534 | -0.733 |
|  | 8.74 | 41.53 |  |  | 1.13 | 13.660 | 1.587 |
|  | $\Sigma \mathrm{x}$ | $\Sigma \mathrm{y}$ |  |  | $\sum \mathrm{dx}^{2}$ | $\sum \mathrm{dy}^{2}$ | $\sum \mathrm{dx.dy}$ |

We know, $\bar{X}=\frac{\sum x}{N}=\frac{8.74}{7}=1.25 \quad \bar{Y}=\frac{\sum y}{N}=\frac{41.53}{7}=5.93$
$r \times y=\frac{\sum d x d y}{\sqrt{\sum d x^{2} \times \sum d y^{2}}}=\frac{1.587}{\sqrt{1.173 \times 13.661}}=0.39$
$P . E=0.6745 \times \frac{1-r^{2}}{\sqrt{n}}=0.6745 \times \frac{1-(0.39)^{2}}{\sqrt{7}}=0.216$
Appendix - 23 (A)
Calculation of Correlation Between Loan and Advance Net Profit of Nabil

| Year | LA (x) | NP (y) | $\mathrm{dx}=$ <br> $(\mathrm{X}-\overline{\mathrm{X}})$ | dy <br> $=(\mathrm{Y}-\overline{\mathrm{Y}})$ | $\mathrm{dx}^{2}$ | $\mathrm{dy}^{2}$ | $\mathrm{dx} . \mathrm{dy}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2000 / 01$ | 5.22 | 0.74 | -2.03 | 0.35 | 4.121 | 0.123 | -0.711 |
| $2001 / 02$ | 5.79 | 0.27 | -1.46 | -0.12 | 2.131 | 0.014 | 0.175 |
| $2002 / 03$ | 7.33 | 0.32 | 0.08 | -0.07 | 0.006 | 0.005 | -0.006 |
| $2003 / 04$ | 8.32 | 0.29 | 1.07 | -0.10 | 1.145 | 0.010 | -0.006 |
| $2004 / 05$ | 7.43 | 0.27 | 0.18 | -0.12 | 0.032 | 0.014 | -0.107 |
| $2005 / 06$ | 8.11 | 0.42 | 0.86 | 0.03 | 0.740 | 0.001 | -0.022 |
| $2006 / 07$ | 8.55 | 0.45 | 1.3 | 0.06 | 1.690 | 0.004 | 0.026 |
|  | 50.75 | 2.76 |  |  | 9.865 | 0.171 | 0.078 |
|  | $\Sigma \mathrm{x}$ | $\Sigma \mathrm{y}$ |  |  | $\Sigma \mathrm{dx}^{2}$ | $\Sigma \mathrm{dy}^{2}$ | $\Sigma \mathrm{dx} . \mathrm{dy}$ |

We know, $\bar{X}=\frac{\sum x}{N}=\frac{50.75}{7}=7.25 \quad \bar{Y}=\frac{\sum y}{N}=\frac{2.76}{7}=0.39$
$r \times y=\frac{\sum d x d y}{\sqrt{\sum d x^{2} \times \sum d y^{2}}}=\frac{-0.567}{\sqrt{9.865 \times 0.171}}=-0.34$
$P . E=0.6745 \times \frac{1-r^{2}}{\sqrt{n}}=0.6745 \times \frac{1-(-0.34)^{2}}{\sqrt{7}}=0.005$

## Appendix - 23 (B)

Calculation of Correlation Between Loan and Advance and Net profit of NABIBL

| Year | LA (x) | NP (y) | $\mathrm{dx}=$ <br> $(\mathrm{X}-\overline{\mathrm{X}})$ | dy <br> $=(\mathrm{Y}-\overline{\mathrm{Y}})$ | $\mathrm{dx}^{2}$ | $\mathrm{dy}^{2}$ | $\mathrm{dx} . \mathrm{dy}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2000 / 01$ | 23.63 | 0.58 | -16.34 | 0.07 | 266.99 | 0.005 | -1.144 |
| $2001 / 02$ | 29.63 | 0.16 | -10.34 | -0.25 | 106.92 | 0.063 | 2.585 |
| $2002 / 03$ | 35.59 | 0.50 | -4.38 | 0.09 | 19.18 | 0.008 | -0.394 |
| $2003 / 04$ | 41.88 | 0.12 | 1.91 | -0.29 | 3.65 | 0.084 | -0.554 |
| $2004 / 05$ | 45.84 | 0.40 | 5.87 | -0.01 | 34.46 | 0.0001 | -0.059 |
| $2005 / 06$ | 47.95 | 0.48 | 7.98 | 0.07 | 63.68 | 0.005 | 0.558 |
| $2006 / 07$ | 55.31 | 0.60 | 15.34 | 0.19 | 235.32 | 0.036 | 2.915 |
|  | 279.83 | 2.84 |  |  | 730.20 | 0.201 | 3.907 |
|  | $\Sigma \mathrm{x}$ | $\sum \mathrm{y}$ |  |  | $\sum \mathrm{dx}^{2}$ | $\sum \mathrm{dy}^{2}$ | $\sum \mathrm{dx} . \mathrm{dy}$ |

We know, $\bar{X}=\frac{\sum x}{N}=\frac{279.83}{7}=39.97 \quad \bar{Y}=\frac{\sum y}{N}=\frac{2.84}{7}=0.41$
$r \times y=\frac{\sum d x d y}{\sqrt{\sum d x^{2} \times \sum d y^{2}}}=\frac{3.907}{\sqrt{730.20 \times 0.201}}=0.32$
$P . E=0.6745 \times \frac{1-r^{2}}{\sqrt{n}}=0.6745 \times \frac{1-(0.32)^{2}}{\sqrt{7}}=0.229$


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