CHAPTER 1

INTRODUCTION

1.1 Back Ground Of Study

Nepal is landlocked country with agro based economy. The country is divided into three parts (i.e. Mountains, Hills, Terai Region) with the geographical nature. Nepal is one of the least developed any very poor country in the world. More than 90% of the people are still in rural areas and most of them are deprived minimum physical facilities, which is necessary for human being. Nepalese economy is dependent on traditional agriculture. Agriculture sector contributes only 40% of the total GDP and is main supplier of raw materials to industries. Development of agriculture sector helps not only to solve the problem of unemployment but also help in the economic development.

Agriculture is still the backbone of Nepalese economy. Economy development is not possible without agriculture development. National planning commission has given more emphasis to this sector, but the real picture of this sector is very poor. This is because Nepal has not been able to provide basic facilities to the farmer like irrigation, electricity and transportation. Despite being second richest in water resources in the world we are compelled to pay dear charge in the world. It provides employment opportunities to more than 80% of labour forces however it contributes just 40% of GDP.

The government of Nepal formulated a policy to develop possible agro based industries for atleast to substitute import of industrial & consumable goods. The basic goal of government policy & self-sufficiency where as other were to generate revenue by operating industrial unit and creation of employment opportunities through this sector.

Financial sector is the lifeblood of the commercial and industrial activities. So commercial bank and other financial institutions of trade and industry in country. They collect the saving from community and transfer to the require sector of trade and industries, so that banking sector development is necessary to economy development.

In the overall development of the banking system in Nepal, the 'Tejarath Adda' may be regarded as the father of modern banking institution and for a quite a long time. It delivered a good service to government employees as well as to general public. However, the concept of modern financial institutions in Nepal was introduced when late former Prime Minister Shree Judda Samser Jung Bahadur Rana established first commercial bank, Nepal Bank Ltd. in 1994 B.S. Before establishment of Nepal Bank Ltd., People fulfilled their credit needs from unorganized market of private money lenders. Presently, there are seventeen commercial banks operating their financial activities in the different part of country. They provide modern banking facilities like ATM card, Debit Card and Credit Card and Master Card to their valuable customers.

The main objective of this study was comparative study of financial performance of two joint venture banks, Nepal Investment Bank Ltd & Nepal SBI Bank Ltd.

1.2 History Of Banking System In Nepal

The history of organized banking system in Nepal was very short. Late former Prime Minister Shree Judda Samser Jung Bahadur Rana established first bank, Nepal Bank Ltd in 1994 B.S. The bank was established to remove the inconveniences caused to the people. When the concept of planning was formulated, there are needed for establishment a central bank.

From the view point of planning, it is necessary that the banking activities specially the loans should be regulated as per priority, thus Nepal Rastra Bank as the central bank was established in 2013 B.S. for developing the financial sector under " Nepal Rastra Bank Act 2012".

In the developing countries like Nepal, the central bank is suppose to help in banking system for mobilization of financial resources and using them into the priority areas as fixed in the development plans.

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

In 1980's to meet the need of healthy competition in financial sector, Nepal allowed to entry of foreign bank as joint venture with up to 51% of equity participation. Recently, Nepal allowed to entry to foreign bank as a joint ventures with up to maximum of 75% of equity participation.

In 2005, Nepal has entered as a member of WTO. After entering into WTO, Nepal has committed to open its financial sector for foreign bank to establish branches of their bank by 2010 A.D.

1.2.1 A Brief Profile Of Nepal Investment Bank Ltd.

Nepal Investment Bank Ltd. (NIBL), previously named as Nepal Indosuez Bank Ltd., was established in 1986 A.D as a joint venture between Nepalese & French partners. The French Partner was Credit Agricole Indosuez, a subsidiary of one of the largest group in the world. The name of the bank has been changed to Nepal Investment Bank Ltd. upon approval of bank's Annual General Meeting, Nepal Rastra Bank & Company Registrar's Office with the following share holding structure:

A Group Of Companies	50%
Rashtriya Beema Sansthan	15%
Rashtriya Banijya Bank	15%
General Public	20%
	100%

Share Capital Of Nepal Investment Bank Limited

Authorized Capital	
10,000,000 Ordinary Shares @ Rs. 100 each	1,000,000,000
Issued Capital	
8,013,526 Ordinary Shares @ Rs. 100 each	801,352,600
(Of which 3,519,545 Right Shares & 3,893,981 Bonus Shares)	
Paid up Capital	
8,013,526 Ordinary Shares @ Rs. 100 each	801,352,600
(Of which 3,519,545 Right Shares & 3,893,981 Bonus Shares)	

Service Offered By Nepal Investment Bank Limited

Nepal Investment Bank Limited has offers various types of services to its customers which are as follows:-

a) Accepting deposits from its customer in various accounts like current, fixed and saving accounts.
b) Granting loan & advance against cash pledge, pledge of shares, pledge of saving bonds, security of authorization to deduct own or third party's account in terms of overdraft, demand loan, time loan, making investment in treasury bills, foreign bills and indigenous bill.
c) ATM, Debit Card, Credit Card, NTC mobile bill payment facilities.
d) E-banking, Premier banking, 365 days banking, Tele banking service.
e) Safe deposit locker facility.
f) Discounting bills, Bills purchase.
g) Opening facility of letter of credit.
h) Remittance service, ABBS, Clearing / collection service.

Nepal Investment Bank Limited has altogether seventeen branches with a head office at Durbar Marg, Kathmandu. Among them, seven branches are in Kathmandu valley and others are in Banepa, Bhairahawa, Biratnagar, Birganj, Birtamod, Butwal, Janakpur,

Jeetpur, Narayanghad, Nepalgunj, Pokhara. It has been giving banking services by using extra modern technologies and it has been joining with SWIFT to speed up the transfer of money in all over the world.

1.2.2 A Brief Profile Of Nepal SBI Bank Ltd.

It is the first Indo – Nepal joint venture in financial sector sponsored by three institutional promoters, namely State Bank Of India, Employees Provident Fund & Agriculture Bank Of Nepal through a memorandum of understanding signed on 17th July 1992 A.D. NSBIBL was established on 7th July 1993 A.D. with an authorized capital of Rs. 12 Crore & commenced operation with one full - fledge office at Durbar Marg, Kathmandu with 18 staff members. The staff strength has since increased to 174. NSBI Bank was incorporated on 07.07.1993 as joint venture State Bank of India (SBI).

Total share of Nepal SBI Bank Ltd are subscribed as follow:

NSBI, India	50%
Employees Provident Fund	15%
Agriculture Development Bank	5%
General Public	30%
	100%

Share Capital of Nepal SBI Bank Ltd

Authorized Capital	
10,000,000 Ordinary Shares @ Rs. 100 each	1,000,000,000
Issued Capital	
6,500,000 Ordinary Shares @ Rs. 100 each	650,000,000
Paid up Capital	
6,477,984 Ordinary Shares @ Rs. 100 each	647,798,400

Service Offered By Nepal SBI Bank Limited

Nepal SBI Bank Limited offers various types of services to their valuable customer who promotes bank competitiveness, credit worthiness and attraction.

Some services and technologies which are provided by Nepal SBI Bank Limited are as follows:

a) Accept Deposits :

   - Saving, Current Deposit, Fixed Deposit, Call Deposit, Recurring.

b) Loan Scheme :
   - Nepal SBI Bank Limited provides home loan, vehicle loan, educational loan, mortgage loan, mortgage plus loan, doctor plus, teacher plus, overdraft against shares, SME loan for small & medium enterprises.

c) Anywhere banking facilities.
d) Safe deposit locker,
e) Evening counter.
f) 24hrs ATM services
g) Remittance, Western Union Money Transfer, SWIFT
h) Other various facilities for corporate.

Nepal SBI Bank Ltd has altogether 18 branches, among them 4 branches are in Kathmandu, 2 branches at Birganj, Dharan & Pokhara and others are in Bhairahawa, Biratnagar, Birtamod, Butwal, Janakpur, Narayanghad, Nepalgunj, Sishuwa.

1.3 Focus Of The Study

This study confines comparative analysis of financial performance between two joint venture banks namely, Nepal Investment Bank Limited and Nepal SBI Bank Limited. Financial analysis covers financial ratio analysis, portfolio trend analysis of two joint venture bank. Both of these banks are working under the same condition and problems, opportunities for the banks and threats to the firm are also similar. Thus, this attempt would be relevant to make a comparative analysis of these two banks. Main focus of this study will be on aspect such as liquidity, profitability activity, and income and expenditure patterns. The trend analysis is as indication about the future operation. "Financial analysis is the process of determining the significant operating and financial characteristic of a firm from various accounting data and financial statement. Financial ratio analysis is a widely use tool of financial analysis and its performance. The goal of such analysis is to determine the efficiency and the performance of the firm's management as reflected in the financial records and report" (John J Hampton, Financial Decision Making, July 1983, p121)

This study focuses on:

- Income and expenditure analysis.
- Correlation analysis.
- Trend analysis.

Financial ratio analysis identifies the financial strength and weakness of both joint venture banks with the help of basic financial statement namely profit and loss account, balance

sheet and cash flow statement. It helps to measure the banks liquidity, leverage, activity and profitability ratio in rational way.

1.4 Statement Of The Problem

There are various joint venture banks operating their activities in the different part of the country. Banks are not to be considered merely as dealers of money but also the leaders in development. They are not only the store house of country's wealth but also the reservoirs necessary for economic development. After His Majesty Government of Nepal adopted the open, liberal and market oriented economic policy. The establishments of private joint venture banks have continued in response to this. Consequently, they are facing tough competition. The financial sector may not be enough from them to meet the growing the resources need to the economy as expected before. Why the financial institution of Nepal is performing well and effectiveness of these institutions should be analyzed. The study will seek the reasonable reasons on the following concentration areas of Nepal Investment Bank Ltd and Nepal SBI Bank Ltd,

- Identifying the liquidity, profitability and capital structure ratio and market position of joint venture banks.
- Identifying the growth ratio level of joint venture banks in term of net profit and earning.
- Identifying the relationship between debt and return of joint venture banks.
- Identifying the relationship between deposit and investment of the joint venture banks.
- Identifying the relationship between organization and its stakeholders.
- Identifying how efficiently do the banks use their capital?
- Identifying which bank performing better and efficiently?

In conclusion, the study aims to find out the areas of differences between NIBL and NSBIBL in terms of deposit collection, resources mobilization, liquidity and others. Fact efficient financial performance is helped to measure the weakness and strength of the bank. This study will predict their strength and weakness, fluctuations of ratios, trend and correlation between relevant variables. A strong financial performance of joint venture can contribute to national economy and also attract foreign investor to invest his or her investable fund in the financial sector. This may be exemplary lesson to the newcomer joint venture bank. Therefore financial statement of the bank should be fully examined to find whether the banks are economically and financially strong or not.

1.5 Objective Of The Study

The main objective of the study is to analyze, examine and interpret the financial position of Nepal Investment Bank Limited and Nepal SBI Bank Limited with the help of ratio analysis and other relevant financial and statistical tools. In addition, the study also tries to evaluate the efficiency and progress of both joint venture banks comparatively.

For above purpose the following points will be considered in the research:-

- To calculate the relevant financial position of NIBL and NSBIBL
- To examine the financial performance of the banks.
- To know the investment position of sample banks.
- To provide suggestion for both banks on the basis of findings.

1.6 Importance Of The Study

Banking sector has been one of the major contributors to national providing variety of disbursement to different sectors, enabling to boost the GDP. Hence, the performance of this sector needs to be above the par to any other field. The financial performance of commercial banking sector should be very much capable in enhancing the capital market as well. This research is a conclusion oriented research. This thesis will help to know the financial performance of Nepal Investment Bank Ltd and Nepal SBI Bank Ltd. This study will also helpful as a literature for the future study about the relating topics. Apart from this, the institution and firm can allow the suggestion of this study to make their policy and strategy more practical and scientific.

The accounting figure presented in the financial statements do not convey any meaningful understanding, it need to be analyzed and interpreted to know the financial performance of the banks. This study will be beneficial to different parties concerned with two banks as well as other interested parties.

Especially it will be beneficial to,

- Management of two banks.
- Lenders and borrowers of these banks.
- Policy maker of these banks.
- Concerned parties and general interested parties of the banks.
- Customers of these banks.

1.7 Hypothesis Formulation

A quantitative statement about the population parameter is called a hypothesis. Generally, two complimentary hypothesis are set up in the testing of hypothesis are the null hypothesis and the alternative hypothesis and these two hypothesis are tested through a statistical tool. Hence, the test hypothesis is a process of testing of significance regarding the parameters of the population based on the sample drawn from the population. The hypotheses regarding this thesis work are as follow:

Null Hypothesis $H_o : \mu_1 = \mu_2$ i.e. there is no significant difference in Profitability Ratios, Valuation Ratios, Activity Ratios, Cost Efficiency Ratios, Leverage Ratios & Liquidity Ratios of NIBL and NSBIBL.

Alternative Hypothesis $H_1 : \mu_1 \neq \mu_2$ i.e. there is significant difference in Profitability Ratio, Valuation Ratios, Activity Ratios, Cost Efficiency Ratios, Leverage Ratios & Liquidity Ratios of NIBL & NSBIBL.

1.8 Limitation Of The Study

This research explains and analyzes the subject matter with the help of well known or already established analytical method and techniques, therefore as a conclusion oriented research. It does not much concern with the fundamental and decision oriented research. This research depends upon only five – year annual report of both banks as well as some primary data of the both banks.

Following are the limitation of this study:-

- It only focuses on Nepal Investment Bank Ltd and Nepal SBI Bank Ltd. covering the period of five years (i.e. 2002/2003 to 2006/2007)
- The whole study is based on secondary data such as financial statement and financial report of both banks.
- This study is concerned with the financial performance of both banks.
- The data published from various sources differ, they do not tally total in many places is not equal. However in this research, report of Nepal Investment Bank Ltd and Nepal SBI Bank Ltd. Are taken valid source of data.
- Time and resource constraint may limit the area covered by study.

1.9 Scheme Of The Study

The study has been organized into five chapters each devoted to some aspect of the study on **"Comparative Study Of Financial Analysis Of Nepal Investment Bank Ltd. & Nepal SBI Bank Ltd."** The titles of these chapters are as follows:

Chapter – 1 : Introduction
Chapter – 2 : Review Of Literature
Chapter – 3 : Research Methodology
Chapter – 4 : Presentation & Analysis Of Data
Chapter – 5 : Summary, Conclusion & Recommendations

The rational behind this kind of organization is to follow a simple research methodology approach. The content of each of the chapters of this study are briefly mentioned below.

Chapter – 1 Contains the introductory part of the study. As already mentioned, this chapter describes the major issues to be investigated along with the general background and objective of the study.

Chapter – 2 Confirm the review of literature of related studies in journals (literature) and review of related studies in Nepal with reference to previous thesis and policies of the government.

Chapter – 3 Describe the research methodology employed in the study. It includes research design, nature and sources of data, selection of enterprises, method of analysis, statistical and financial tools used.

Chapter – 4 Deals with the presented and analysis of the data. It consists of analysis of relevant rations to evaluate the financial position of both banks followed by their interpretation. The cash flow analysis, hypothesis testing of different ratios used in the study and trend analysis of different measures are calculated and interpreted. This chapter also presents the major finding of the research.

Chapter – 5 Contains summary & conclusions of the study. It also offers recommendations on the basis of findings.

CHAPTER *2*

REVIEW OF LITERATURE

The preceding chapter presented the background with growth of commercial banks with specific reference of Nepal Investment Bank Ltd. & Nepal SBI Bank Ltd. as the financial intermediates. It also introduces about the statement of problem, objective of study, importance of study, limitation of study.

Review of literature means reviewing research studies or other relevant preposition in related area of the study so that all past studies, their conclusion and deficiencies may be known and further research can be conducted.

This chapter basically is divided into two sections. The first section is conceptual review which covers the topics such as concept of financial performances, meaning, objectives and limitation of financial analysis. Along with this meaning, history and functions of commercial banks, evolutions of joint venture banks and their functions are also presented. The second section is related about the books articles and the pre done thesis related to the subject matter. This chapter highlights upon the literature that have been already conducted by some thesis researchers in this particular topic of joint venture bank. Some of them, as are supposed to be relevant for this research purpose. The review is arranged in the following order.

2.1 Conceptual Review

A financial analysis is identifying the major strength and weakness of business enterprises, it indicates whether a firm has enough cash to meet its obligations utilization of resources, investing opportunity, profitability, and capital structure of organization etc. Financial analysis can also be used to assess a firm's viability as an ongoing enterprise and determine whether a satisfactory return is being earned for the risk taken.

The single ratio like absolute figures fails to reveal the financial position of company. Therefore, they should be compared with some standard to know the favorable & unfavorable condition. Certain ratio has been developed as rule of thump by which we can judge the firm's financial condition & operate in key areas against industry wise standard of comparison. When the firm's ratio is a key area is worse than the industry standard, we alert to a potentially inferior financial performance. When the ratio is better than industry's standard, we are alerted to a potentially superior financial performance at least in that particular area.

2.2 Joint Venture Banks In Nepal

2.2.1 Introduction

Joint venture is a general model for direct investment. Joint venture is a mode of trading through the partnership among nations & also a firm negotiation between the various groups of industrialists, traders & mercantile to achieve mutual exchange of goods & services for sharing comparative advantage in their contribution. Joint venture is joining the forces between two or more enterprises for the purpose of carrying out a specific operation.[1]

For the economic boost of the nation, sound competition is needed in the banking sector. With understanding the fact, HMG of Nepal adopted the strategy to establish banking companies in joint venture with the foreign banks, importing the high foreign banking techniques in the kingdom. In Nepal, the history of development of financial institution as compared to other developed & developing countries has been new experiment. Prior to the introduction of modern banking in Nepal in 1937, industry, business & commerce were in a pity conditions. In order to initiate industrialization, Nepal Government has given due emphasis for development of the industrial sector. The government continues to maintain its efforts to follow liberal & market oriented economic policies encouragement to private participation in infrastructure activities such as power, telecommunication & gradual privatization of public sector companies. Among various factors of industrialization, shortage of capital is as important factor that hinders the process of industrialization in less developed countries. In order to set up & develop industries, huge financial investment is required.

The positive aspect of joint venture banks, (Malla, R. 2005.p.21)

- Increase in highly skilled personnel with modern banking technology.
- Efficient modern banking system.
- Commercialization of domestic technologies.
- Advance management skill.
- An international network for bank branches.
- Import of updated technology.
- Transfer of managerial skill.

2.2.2 History Of Joint Venture Banks

Before the establishment of joint venture bank, there were few banks operating in Nepal after the establishment of Nepal Bank Ltd.

1- Gupta G. D. "The Banking System: International Trade Centre, Geneva; 1984; p.15

In 1937 A.D., Nepal have initiated Nepal Rastra Bank (Central Bank) 1955, Nepal Industrial Development Corporation (NIDC) in 1957, Employees Provident Fund in 1963, Rastriya Banijya Bank (Commercial Bank) in 1964, Agriculture Development Bank in 1968, Nepal National Insurance Corporation Act in 1968 & Small Industries Development Corporation (SIDC) in 1971.

In quest of financial institution as joint venture bank ltd, Nabil Bank Ltd was first joint venture bank in country. The bank was established in 1984 & operated on July 12, 1984 sharing 50% from Dubai Bank Ltd was registered in United Arab Emirate, sharing by 20% from Financial Institution Of Nepal & 30% from general public. It has Rs. 100 million authorized capital, Rs. 50 million issued capital and paid up capital has Rs. 30 million.

Similarly, the second bank established in joint venture investment was Nepal Indosuez Bank Ltd. It was established in 2042 B.S. (1985 A.D.). But now its name is Nepal Investment Bank Ltd. It has played great role in development of banking system. It has also opened its branch offices. At present there is no foreign investment in it. The Nepalese shareholders own all shares.

Third joint venture bank in Nepal is Standard Chartered Bank Ltd. The bank was originally established as a joint venture of Grindlays Bank & Nepal Bank Ltd in 2043 B.S. (1986 A.D.) with the shareholding ration of ANG Grindlays Bank Ltd 50%, Nepal Bank Ltd. 33.34% and general public 16.66%. Along with the change of ownership to Standard Chartered, the banking area of Standard Chartered Bank Nepal Ltd. Saw the rise of new dawn changing the general public image of bank. With this acquisition, Standard Chartered Bank now owns 50% shares of Nepal Grindlays Bank previously owned by ANZ Grindlays.

Fourth JVB is Himalayan Bank Ltd (HBL) established in 1992 A.D. It was established to maintain the economic welfare of the general people to facilitate loan for agriculture, industry & commerce to provide the banking services to the country & the people. It has been finance by founder's shareholders (A class) sharing 51%, 20% by Habib Bank Of Pakistan, 14% by Karmachari Sanchaya Kosh & 15% by public. The bank has Rs. 120 million authorized & Rs. 60 million issued capital. It is the first joint venture bank having domestic ownership more than 50%.

Agricultural Development Bank Of Nepal, sponsor the bank. The main objectives of Nepal SBI Bank Ltd (NSBIBL) are to play an important role in facilitating growing Indo-Nepal trade, to provide a whole range of banking service of international standard & to effectively participate in the process of economic development of Nepal.

Nepal Bangladesh Bank Ltd, a 6th joint venture bank in Nepal, started its operation on June 6, 1994. The bank established with the joint collaboration of International Finance Investment & Commerce Bank Ltd (IFIC) of Bangladesh has Rs. 240 million authorized & Rs. 60 million paid – up capitals.

Everest Bank Ltd, a joint venture private sector bank commenced its operation from October 18, 1994. Of paid up capital Rs. 60 million of the banks, 50% share is held by the

promoters, 20% share of the Punjab National Bank of India & the rest 30% share by the general public.

Bank Of Kathmandu Ltd began its operation since March 12, 1995. The bank established with the joint collaboration of SIAM Commerce Bank PCL, Thailand, has paid up capital Rs. 90 million of this paid up of 45% share is held by Nepalese promoters, 30% by collaboration bank & rest 25% by the general public.

Nepal Bank Of Ceylon, a ninth venture bank commenced its operation from October 14, 1996. The bank established with the joint collaboration of Bank Of Ceylon (Sri Lanka) has Rs. 500 million paid up capital, 45% share is held by Bank Of Ceylon & rest 55% by general public. Srilankan investors have sold their shares to the NB group of Nepal & its name has been changed to Nepal Credit And Commercial Bank Ltd. The bank is operating its function in great speed.

In addition to this, there are also other commercial banks opened in Nepal. These banks are as follows:

1. Nepal Industrial & Commercial Bank Ltd., Biratnagar
2. Lumbini Bank Ltd., Narayanghat
3. Kumari Bank Ltd., Kathmandu
4. Machhapuchchare Bank Ltd., Pokhara
5. Laxmi Bank Ltd., Birganj
6. Siddhartha Bank Ltd., Kathmandu
7. Global Bank Ltd., Birganj
8. Sunrise Bank Ltd., Kathmandu
9. Prime Bank Ltd., Kathmandu
10. Citizen Bank International Ltd., Kathmandu

Joint venture banks in Nepal have achieved success in terms of market share & profitability due to their strengths on service & professionalism. The banking sector flourishing in Nepal has multiplied with the addition of new banks & finance companies.

2.2.3 Role Of Joint Venture Banks In Nepal

Introduction of JVB in Nepal has changed the scenario of banking sector in Nepal. The joint venture banks have invited a new era of banking in this one of the least developed country by introduction of high and efficient methods in the banking sectors. The banking facilities are access to only few finger counted people in the country. This sector basically helps to promote other infrastructure of the country, on which the base of the development can be set. Other areas of expertise are forward cover for foreign exchange transaction by importers & exporters, merchant banking inter-banking market for money and securities, arranging foreign currency loans etc.

Joint venture banks are important for the economic development to mixed economy follower like Nepal. Nepalese economic situation & investment necessity experience short of such institutions which can serve such problems. The role of joint venture banks can be presented as follows:

a) Creation Of Competitive Environment

Clients are beneficial either by higher rate of interest in their deposition or by lower rate of interest on credit. It is possible only under competitive environment. After the arrival of JVB, old banks are also been competitive. Fair competition among banks not only beneficial for bank themselves and economy too. Fair personnel management efficient financial performance, quality services and research oriented development is possible only in the competitive environment.

b) Introducing New Method & Technology In Banking Services

Modern managerial principles & practices in banking sector have been introducing by joint venture banks in Nepal. New banking techniques such as hypothecation & syndication are also introduces under NRB guidance. Various techniques follow by international banks in deposition, lending, exchange and they have been introducing by these banks in Nepal.

After the establishment of these banks, other new and old banks began to computerize the banking system. Some new banks have adopted new techniques such as tele – banking, credit, debit card system, 24hrs services and ATM service. Now these banks are seeking to follow up some developing techniques in international banking sectors.

c) Providing More Resources For Investment

The JVB have played a significant in canalizing the additional resources for investment for the development of the country. Although it is argued by many resources raised to locally in the prevailing market those resources would have been mobilized by no other domestic institution, it is assumed that the JVB's have mobilized net additional resources if they tap so far untapped resources in the local market.

d) Information To Foreign Investors

The role of joint venture banks is significant for the collection of fund foe mega projects. The various type of publications to be acquainting with Nepalese rules, regulation and practices of concerned sector. Before the establishment of JVB, some large projects

should be established through two or three local banks but mega projects could not be established.

Because of the political instability, offer the restoration of multiparty democracy also the foreign investors have still been hesitating to invest in Nepal. In such a situation, the publications of JVB have been playing a vital role to introduce the Nepalese financial rules, regulation, policies and practices to the foreign investors.

e) Contribution To National Economy

Joint venture banks, comparatively are adopting new banking systems. They are already established in financial, garments, agricultural and housing needs and playing a significant role to contribute in national economy from own sector.

Thus, through such banks managerial and banking techniques, new ideas and philosophy, foreign investment and capital, healthy, competitive atmosphere and diversified market concepts transfer to other companies.

But here is a remarkable point that joint investments should be directed by economic need and not by political interest. Financial & legal rules, regulations and practices should be clear and convenient to foreign investors.

2.3 Financial Statements

Financial statements are annual report prepared by the organization. They are prepared for period review on the progress made and results achieved during the period under review. They generally refer the income statements, profit & loss a/c, statement of affairs i.e. balance sheet drawn at the end of each financial year. Financial statement provides the important information pertaining,

- The adequacy of earning to be able to attract potential investors.
- The profitability of the firm, company or institution.
- Liquidity position of the firm, company or institution.

Financial statements are prepared from the accounting records maintained by the firm. The generally accepted accounting principles and procedures are followed to prepare these statements. The basic objectives of financial statements are to assist in decision making process. The definition of financial statements by American Institute Of Public Accounts will be worthwhile to quote here: "Financial statements are prepared for the purpose presenting a periodical review or report on the progress by the management. They deal with the status of investment in the business as also with the results achieved during the period. They reflect a combination of recorded facts, accounting conventions and personal judgments. And the judgments and conventions applied affect them materially. The soundness of the judgment necessarily depends upon their competence and integrity of

those makes them and on their adherence to generally accepted accounting principle and conventions."

The definition presented above briefly explains the key contain and important features of the financial statements.

2.4 Financial Statements Analysis

Financial statements analysis involves a comparison of a firm's performance with that of other firms in the same line or business which often is identified by the firm's industry classification. Generally speaking, the analysis is used to determine the firm's financial position in order to identify its current strength and weakness and to suggest actions that might enable the firm to take advantages of its strengths and weaknesses. Business enterprises communicate financial information to the users through financial statements and reports. The financial statements contain systematically organized summarized information of the enterprise's financial affairs. They reflect the firm's financial situation. Financial statements are prepared with the help of financial transaction undergone during the financial year to provide the financial information. However, the information provided in financial statements doesn't say anything itself. It needs to be analyzed thoroughly and interpreted carefully to get any meaning. Thus, financial analysis is the process of identifying the financial strength and weakness of the firm by properly establishing relationship between the items of financial statements.

Financial statements analysis is important not only for the firm's managers but also for the firm's investors and creditors. Internally, financial managers use the information provided by financial analysis to help make financing and investment decisions to maximize the firm's value. Externally, stockholders and creditors use financial statements analysis to evaluate the attractiveness of the firm as an investment by examining its ability to meet its current and expected financial obligations. As investors and financial analysts examine the firm's performance in order to make investment decisions based on these statements, they should be carefully prepared and should be as much informative as possible.

"Financial statement analysis is largely a study of relationship among the various financial factors in a business as disclosed by the single set of statement and a study of the trend of these factors as shown in a series of statement".[2]

Surendra Pradhan urged "Financial analysis is to analyze the achieved statements to see if the results meet the objectives of the firm, to identify problems if any, in the past or presents and/ of likely to be in the future, and to provide recommendations to solve the problems." [3]

2- Mayer, J.N., Financial Statements Analysis, Englewood clits, Prentice Hall, 1961, p.4

3- Pradhan, S. Basics Of Financial Management Educational Enterprises (P) Ltd. KTM, 2nd edition, 2000, p.120

According to Hampton "Financial analysis is used primarily to gain insight in to operating & financial problems confirming the firms, with respect to these problems, we must be careful to distinguish between the cause of problems and symptom of it." It is thus as attempt to direct the financial statements in to their components on the basis of purpose in hand and establish relationship as between these components on the one hand as between individual components and total of these items on the other. Along with this, a study of various important factors over the past several years is also undertaken to have clear understanding of changing profitability and financial condition of the business organization.[4]

Jains says "Mush can be learnt about business performance and financial position through an appraisal of financial statement. The appraisal or analysis of financial statements spotlights and significant facts and relationship concerning managerial performance, corporate efficiency, financial strength and weakness and worthiness, that would have otherwise been buries in a maze of details."[5]

2.5 Importance Of Financial Analysis

The importance of analysis of financial statement can be generally outlined as below:

a) Financial statement analysis measures the firm's liquidity and solvency position.
b) Financial statement analysis illustrates the profitability position of the firm.
c) Financial analysis provides sufficient information to the management in order to organize objectives, device plans, formulate policies and implement them effectively.
d) Financial statement analysis furnishes necessary information to fulfill the needs of current as well as potential investors and regulatory authorities.
e) Financial statement analysis shows the true and fair picture of the firm.

2.6 Process Of Financial Analysis

Financial analysis is the technique to answering the question about the performance of financial institutions. It answers the questions on the basis of the analysis carried out on historical data and the future prospective performance of the firm. The analysis is useful to all the stakeholders of the firm to know about the performance of the firm and to take corrective actions if any fault is found.

Financial analysis answers the problem in a systematic pattern. First the problem is to be found out answering the problem. For this analysis of financial statements are to be carried out to diagnose the problem using appropriate tools and techniques. In the second step the identified problem is analyzed and a way is looked for the correction of the problem.

4- Hamptomn, J.J, op.Cit, p.99.
5- Jain, Premila, op.Cit, p.37

Appropriate recommendations are made and then to project the expected results and examine them if there are improvements before implementing such recommendations. The following chart classifies the financial analysis process:

Process Of The Analysis Of Financial Statement

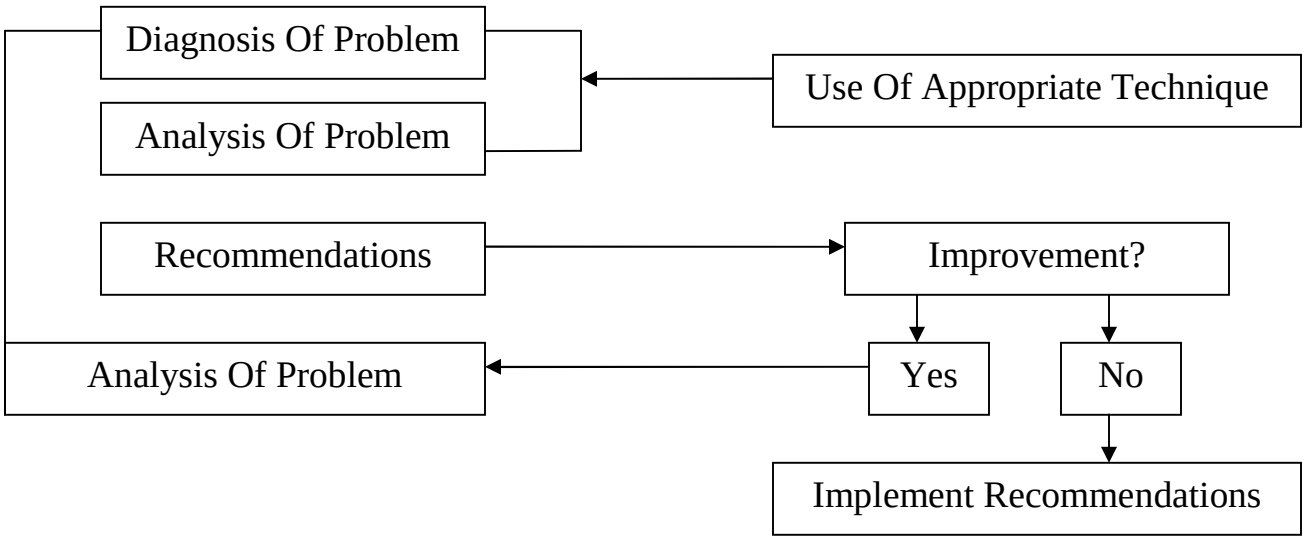


Fig. 1

2.7 Review Of Books

Various books are written in joint venture bank and here we will reviewing few of them, Sayers (1967) in his book 'Modern Banking' focuses in the economic importance of commercial banks and their function of 'creation of money'. According to him "the special interest of economists in the activities of the deposit liabilities of banks. Their lies the communities interest in the bank because by their operations they can effect the monetary situation in sense of the availability of the purchasing power. When bank makes an advance by allowing customers to overdraw his accounts, the banks in effect exchanges its own promise to pay off the immediately against the customer's promise, to pay off the advance later on the economics importance of this exchange is that the bank's promise to pay immediately is absolutely effectively is absolutely effective purchasing power, when play's & instrumental role is increasing the total demand of the goods & services. Here people use banks for the purpose of making payments and as sources of loans; the latter involves society's interest in the distribution between different uses of the resources that can be devoted to adding to the real capital of nature."

The book was written by Bhuman/Sharita Dahal (2056) in their 'A Hand Of Banking ' highlights in function of credit creation, accepting various types of deposits and advancing loan in different field. According to the authors, the vary of marketing focused on the customer – oriented concept of commercial bank following Nepal Rastra Bank directives.

2.8 Review Of Unpublished Thesis

Various studies have been conducted on the financial performance of commercial bank of Nepal. Many of them are concentrated to Nepalese commercial banks and few are focused on joint venture bank especially comparative studies. In this chapter different previous studies have been reviewed so that the chances of duplication will be avoided from the present study and some newness can be created in this field of study.

Acharya Gyanendra (1997) in his study, " A Comparative Study Of Financial Of Joint Venture Banks In Nepal Specially On Nepal Arab Bank Limited And Nepal Indosuez Bank Limited" concludes that the liquidity position of both banks in below the normal standard of 2:1. Comparatively this ratio of Indosuez Bank Limited is better on average than Nepal Arab Bank Ltd. He found that both banks are to be efficient in utilizing most of their total assets. Capital structure of both banks is highly leverages. Capital adequacy ratio of Indosuez Bank is better than Nabil Bank Ltd. Profitability ratio of both banks is not satisfactory level. He suggested that both should improve their financial performance.

Keshav Raj Joshi in his thesis entitled "A Study Of Financial Performance Of Commercial Banks" found satisfactory liquidity position of commercial banks high leverage in compares to joint venture banks high. He found that they were adopting conservative credit policy so they were interesting much in loans & advance that from the main source of income. The profit performance of NBL was better than NGBL.[6]

Pramesh KC, (1989) in his thesis entitled "Dividend Policy Of Joint Venture Banks In Nepal" concludes that joint venture bank in Nepal are growing banks being actual capitalization rate amount of cash dividend has been raising each year. Their market values per share were significantly fluctuated and trading on high price. They are less risky. Retained earning ratio of these banks is fluctuated in smaller proportion. The earning per share of Nabil Bank Limited and Indosuez Bank Limited were raised satisfactorily. Price earning ratio and earning yield ratio is inconsistent. These joint venture banks are declaring higher dividend return on paid-up capital.[7]

"A Study on Commercial Banks of Nepal with Special Reference To financial Analysis Of RBB" by Deepak Joshi concluded that liquidity position of the bank has maintained low liquidity than required.

6- Keshav Raj Joshi, "A Study Of financial Performance Of Commercial Banks" unpublished Master Degree's desertion, T.U. 1989.

7- Pramesh KC, "Dividend Policy Of Joint Venture Banks In Nepal", unpublished Master Degree's Thesis, T.U. 1991

Gradual increase in the amount of the funded debt and highly geared capital structure seem to be negative performance for bank. Moreover, return on assets is not satisfactory. The research suggests that the bank should invest its resources in more productive sectors and equity financing should be emphasized.[8]

Bhoj Raj Bohara, (1992) in his thesis entitled "A Comparative Study Of Financial Performance Of Nabil Bank Limited and Indosuez Bank Limited' has define that the aim of the study is to highlight on the functions and policies of joint venture banks and to evaluate the comparative financial performance of Indosuez Bank Limited and Nabil Bank Limited in terms of liquidity, activities and profitability along with other various indicator including some suggestive framework. With regard to the finding of the study Nabil Bank Ltd is better in case of liquidity, regarding the turnover and capital adequacy position. Nabil Bank Ltd is more aggressive liquidity, investment and borrowing policy to generate profit out of the all others indicators (D/P and P/E Ratios, MVPS, EPS, cash dividend per share), except EPS, indicate the better performance of Indosuez Bank Ltd than that of Nabil Bank Ltd.[9]

Lekh Nath Ghimire performed a research in entitle "A Comparative Study Of Financial Performance Of Himalayan Bank Limited And Nepal SBI Bank Limited" with the objective of analyzing and interpreting the financial performance. The major uncovers facts of this research was that the allover liquidity, earning and growth position of Himalayan Bank Limited was stranger than Nepal SBI Bank Limited's capital adequacy, quality of assets as well as turnover position was found to be superior to that Himalayan Bank Limited. Himalayan Bank Limited was more efficient in creating credit in comparison to Nepal SBI Bank Limited. Correction analysis revealed the facts that Nepal SBI Bank Limited was able to utilize its resources more efficiently and profitably. Income and operating expenses were in increasing trend and were dominated by interest incase of both the banks.[10]

Mr. Rajendra Lamsal has conducted a study entitled "A Comparative Financial Statement Analysis Of Himalayan Bank Limited And Nepal Grindlays Bank Limited". In his study he concluded that the liquidity position of HBL is better than that of NGBL. HBL has sufficient cash and bank balance to meet its current and fixed deposits. From the analysis of utilization of ratio of those two banks; it is found that HBL has better turnover than NGBL in term of loan and advances to total deposit ratio. But in terms of investment to the total deposit ratio, NGBL is better than that of HBL, which exhibits the NGBL's ability to pay higher dividend per share to its investor's as compared to HBL.

Pramod Dhungana has conducted another study to analyze the profits trend of Nabil Bank Limited, Nepal Indosuez Bank Limited And Nepal Grindlays Bank Limited (Renamed Standard Chartered Bank Nepal Limited) since their establishment from 1991 A.D.

8- Deepak Joshi, "A Study On Commercial Banks Of Nepal With Special Reference To Financial Analysis Of RBB" an unpublished Master Degree's Dissertation, T.U.1995.

9- Bhoj Raj Bohara, "A Comparative Study Of Financial Performance Of Nabil Bank Limited And Indosuez Bank Limited", an unpublished Master Degree's Dissertation, T.U. 1992.

10- Lekh Nath Ghimire, "A Comparative Study Of Financial Performance Of Himalayan Bank Limited And Nepal SBI Bank Limited,' an unpublished Master Degree's Thesis, T.U. 2000.

The study revealed that profitability ratio of all the joint venture banks i.e. Nabil Bank Limited, Nepal Indosuez Bank Limited and Nepal Grindlays Bank Limited have been satisfactory over the study period exhibiting their better efficiency in utilizing their deposits. However, they have been unable to mobilize savings from different parts of country. Profit as indicated in their financial statements is an inflated one, fluctuation the foreign currency being the main reason. He recommended that joint venture bank are earning more profit from non operational sources so these banks try to earn profit from operational sources by increasing their operational efficiency. He has concentrated only the profitability aspects of joint venture banks. So, he can calculated profit related ratios and analyzed on the basis of these ratios.

Bishnu Dev Panday, (2002) in his thesis entitled, "A Study Of Financial Analysis On Nepal Grindlays Bank Limited" has conducted and analysis the financial position of Himalayan Bank Limited. In the study, Mr. Panday has tried to examine the growth of sampled bank.

In his research, he concluded that overall liquidity and capital structure position of the bank is not satisfactory. Overall profitability condition was highly appreciable profit generating capability through loans and advances appeared satisfactory. Trend of deposit collection shows that the bank was in a higher risk with respect to saving deposits against the fixed deposits.[11]

Sangita Shakya, (2002) in his thesis entitled, "A Comparative Analysis Of Financial Performance Of Selected Joint Venture Banks, A Study Of Himalayan Bank Limited And Nepal Grindlays Bank Limited" with the view of being familiar with comparative strength and weakness and their ability through the analysis of liquidity ratios. The major findings drawn from the study are Himalayan Bank Limited is more efficient in the case of liquidity as well as it is more levered than Grindlays Bank Limited where as, Himalayan Bank Limited is in better condition from the aspect of capital adequacy, activity, and profitability ratios. Study showed positive correlation between loans and advances to total debts of both banks according to trend analysis, profit before tax of Nepal Grindlays Bank Limited has been increasing at the higher rate than that of Himalayan Bank Limited.[12]

2.9 Review Of Articles

Sunil Chopra in his article "Role Of Foreign Banks in Nepal" published in Nepal Rastra Bank Samachar, undoubted conducted that the joint venture banks are playing an increasingly dynamic and vital role in the economics development of country. That will undoubtedly increase with time.[13]

11- Bishnu Dev Panday, "A Study Of Financial Analysis On Nepal Grindlays bank Limited", an unpublished Master Degree's Thesis, T.U. 2000.

12- Sangita Shakya, "A Comparative Analysis Of Financial Performance Of Selected Joint Venture Banks, A Study Of Himalayan Bank Limited And Nepal Grindlays Bank Limited, "an unpublished Master Degree's Thesis, T.U. 2000.

13- Sunil Chopra, "Role Of Foreign Banks In Nepal", Nepal Rastra Bank Samachar NRB, Baishakh 2049, ppl-2

Another study conducted by Dr. Manohar Krishna Shrestha in his article "Commercial Banks Comparative Performance Evaluation" clarify that joint venture banks in Nepal are new and comparatively more efficient in operation and having superior performance among local banks. Due to their new and qualify technology, modern banking and skill, joint venture banks are performing better comparison to local banks. Their better performance is also due to the burden of local banks, which are facing the burden of government's branching policy in rural areas and financing public enterprises and priority sector. Local banks are efficient and expertise in rural sector. However, having number of deficiencies, they have to face growing constrains of socio-economic political system on hand spectrum that of issue and challenges of joint venture banks commanding significant banking in other hard spectrum.[14]

R.L.Shrestha in his article "Capital Adequacy Of Bank, The Nepalese Context" has suggested the banks that deal in highly risky transactions to maintain strong capital base. He concluded that the capital base should neither be too much leading to inefficient allocation of scarce resources nor so weak to expose to extreme risk. The study accepts that the operations of banks and the degree of risk associated with them are subject to changes country wise, bank wise and time period wise. [15]

14- Dr. Manohar Krishna Shrestha, "Commercial Banks Comparative Performance Evaluation', Karmachari Sanchaya Kosh, Kathmandu, 2047.

15- R.L.Shrestha, "Capital Adequacy Of Bank, The Nepalese Context', NRB Samachar, 34th anniversary 2046, pp 24-27.

CHAPTER *3*

RESEARCH METHODOLOGY

The research methodology is systematic way of solving problem. Research methodology refers to the overall research process, which a researcher conducts during their study. Research can be conducted on the basis of primary and secondary data. Here in the study all the data and observed data are analyzed with using appropriate financial and statistical tools. In this research, the research design, sources of data collection, population and sample and method of data analysis are serially described.

3.1 Research Design

"A research design is the arrangement of conditions for collection analysis of data in a manner that aims to combine relevance to the research purchase with economy in procedure". It is also said that research design is the plan structure and strategy of investigations conceived so as to obtain answer of research question and control variance.

In order to make any types of research a well set of research design is necessary which fulfills the objective of the research study. The research design of this study is descriptive as well as analytical. This research design is an examination of weakness of Nepal Investment Bank Limited & Nepal SBI Bank Limited. This study is closely related with the various functional and accounting statements as well as actual result of these banks. This study covers the five years period from the FY 2002/2003 to 2006/2007.

3.2 Sources Of Data Collection

The study heavily depends upon secondary sources of data. The main sources of data are annual reports of related banks, Nepal Rastra Bank & Nepal Stock Exchange (NEPSE) database. Along with different websites are frequently visited for the purpose of data collection. The data and information are used for ratio analysis. All these data were collected personally.

3.3 Population And Sample

This thesis entitled "Comparative Study Of Financial Analysis Of Nepal Investment Bank Limited & Nepal SBI Bank Limited". Therefore, all the commercial banks operating in

Nepal have been considered as a population and two banks, NIBL & NSBIBL have been considered as a sample. A list of population banks are presented in the table below:

Table 1
List Of Commercial Banks In Nepal

S. No.	Name Of Bank	Renamed	Establishment Date	Head Office
1.	Nepal Bank Ltd.	-	1994.07.30	Kathmandu
2.	Rastriya Banijya Bank	-	2022.10.10	Kathmandu
3.	Nepal Arab Bank Ltd.	Nabil Bank Ltd.	2041.03.29	Kathmandu
4.	Nepal Indosuez Bank Ltd.	Nepal Investment Bank Ltd.	2042.11.16	Kathmandu
5.	Nepal Grindlays Bank Ltd.	Standard Chartered Bank Ltd.	2043.10.16	Kathmandu
6.	Himalayan Bank Ltd.	-	2049.10.05	Kathmandu
7.	Nepal SBI Bank Ltd.	-	2050.03.23	Kathmandu
8.	Nepal Bangladesh Bank Ltd.	-	2051.02.03	Kathmandu
9.	Everest Bank Ltd.	-	2051.07.01	Kathmandu
10.	Bank Of Kathmandu	-	2051.11.28	Kathmandu
11.	Bank Of Ceylon	Nepal Credit & Commerce Bank Ltd.	2053.06.28	Siddhartha Nagar
12.	Lumbini Bank Ltd.	-	2055.04.01	Narayangadh
13.	Nepal Industrial & Commercial Bank Ltd.	-	2055.04.05	Biratnagar
14.	Machapuchchhare Bank Ltd.	-	2057.06.17	Pokhara
15.	Kumari Bank Ltd.	-	2057.12.22	Kathmandu
16.	Laxmi Bank Ltd.	-	2058.12.19	Birganj
17.	Siddhartha Bank Ltd.	-	2059.09.10	Kathmandu
18.	Global Bank Ltd.	-	2063.09.18	Birganj
19.	Sunrise Bank Ltd.	-	2064.06.25	Kathmandu
20.	Prime Bank Ltd.	-	2051.03.11	Kathmandu
21.	Citizen International Bank Ltd.	-	2064.01.05	Kathmandu

Name Of Sample Joint venture Banks

- Nepal Investment Bank Limited
- Nepal SBI Bank Limited

3.4 Method Of Data Analysis

"The term data analysis refers to the computation of certain measures along with searching for patterns of relationship of different supporting or conflicting with original or new

hypothesis and should be subjected to statistical test of significant to determine with what validity can be said to indicate any conclusion." (Kothari, 2000, p-51)

The first step of data analysis was the processing of the data in which classification and tabulation of data are carried out. Classification and tabulation of data has prepared for further analysis. Analysis means computation of certain indicator or measures along with searching for patterns of relationship that exist among the data group. Analysis may be categorized as descriptive analysis and inferential analysis. To achieve the predetermined objective of the research, certain tools are used. The tools are categorized as:

- Financial Tools
- Statistical Tools

3.4.1 Financial Tools

Out of various tools, following ratios have been used in this study:

- **Performance Measures**

Profitability Ratio

Profit earning is the main objective of the bank. It must earn sufficient income to meet its running cost, to make payments of interest in deposit and to yield reasonable return for the owners. Profitability should be distinguished from profits. Profit refers to the absolute quantum of profit whereas profitability refers to the ability to earn profits. Profitability is a measure of efficiency and control. It is the relative measure of earning capacity.

a) Interest Earned To Total Assets Ratio
b) Return On Total Deposits Ratio
c) Return On Total Assets Ratio
d) Interest Earned To Total Assets Ratio
e) Return On Net Worth
f) Return On Total Deposit Ratio

Growth Ratio

Growth ratio measures the economic status of the firm with respect to the industry it involved. It signifies the economic position of the firm. It is calculated by dividing the last period figure that provides a compound sum interest factor from which researcher have calculated growth rates by using end point method. The growth rates of following measures,

a) Operating Profit
b) Net Profit After Tax

c) EPS
d) DPS
e) BVPS
f) MPS

) Valuation & Measures

Valuation ratios are the most comprehensive measures of performance for the firm is that this reflect the combined influence of return and risk ratio (Weston, J. Fred & Copeland Thomas E, p. 197). Naturally, the decision that management makes in the day to day operations of the business predictability affects the value of the firm and it evaluate the company from an operational perspective, these ratio evaluate the company largely in terms of market values. Out of these, the most important ones are as follows:

a) P/E Ratio
b) Market To Book Value Ratio
c) Dividend Yield

) Operating Efficiency Measures

Operating expenses is the key for the success of the firm. The vital factor for the superb performance of a firm is operating efficiency. This measure has been used here to check how well the management of bank is doing for the success of the banks. This measure involves the following ratios:

Activity Ratio

Activity ratios are concerned to the ability of banks to convert its deposits into loan & advances. It measures how the bank is utilizing its collected resources. They indicate the speed with which assets are being converted or turned over. Greater rate of turnover signifies efficient utilization and management of assets & therefore, proper balance on sales and assets is very vital to any firm. Examine the investment and deposit pattern of these banks, the following ratio are calculated,

a) Loan & Advances To Total Deposits Ratio
b) Loan & Advances To Fixed Deposits Ratio
c) Loan & Advances To Saving Deposits Ratio
d) Performing Assets To Total Assets Ratio
e) Performing Assets To Total Debt Ratio
f) Non Performing Assets To Total Assets Ratio
g) Investment To Total Deposits Ratio

Cost Effectiveness Measures

Firm incurs several costs in the course of operation. These costs are basically the determinant of the profitability of the firm. So, the management should always focus their critical eyes upon the cost of the firm. This measure tries to examine the cost pattern and their ratio with different respect. Under this heading following ratios are analyzed.

a) Personal Expenses To Total Income Ratio
b) Other General Expenses To Total Operating Income Ratio

) Financial Policy Measures

Financial policy refers to the adopted by a firm regarding its overall aspects of the financial need. The comparative financial strength and weakness of any firm is evaluated by financial policy measure. Financial policy guidelines the firm in making the decision related to capital structure, liquidity position and fund procurement. These measures have been applied here to measure the comparative performance of the sampled banks with regard to strategic decisions as well as to investment management and cost management. For the study two types of financial policy have been considered. They are,

Leverage Or Capital Structure Ratio

Structure refers to the composition of debt and equity in the capital structure. Debt and equity are the long term obligations of the bank and others liabilities that appears in the liability end of balance sheet are termed as short term obligation. This ratio is used to measure what types of proportion of debt to equity the bank in its capital structure has used. The different mix of debt and equity can be maintained in capital structure but an optimum is one that minimizes the financial risk of banks as well as overall cost of funds and maximizes the wealth of shareholders as well as the stock price in the market.

a) Total Debt To Equity Ratio
b) Leverage Factor Ratio
c) Capital Adequacy Ratio
d) Coverage Ratio

Liquidity Ratio

Liquidity refers to the ability of the bank to pay the short term liabilities and drawings demanded by the depositors in time. The lack of proper liquidity management would lose the confidence of the investors. Excess liquidity implies the inefficiency in utilizing the collected fund, which ultimately reduces the probability of the bank. One of the first concerns of most financial analyst is liquidity; will the bank be able to meet its short term maturing obligations.

A firm should insure that it doesn't suffer from lack of liquidity and also that it doesn't have excess liquidity. A very high degree of liquidity is also bad; idle assets earning nothing. The firm's funds will be unnecessarily tied up in current assets. Therefore, it is necessary to strike a proper balance high liquidity and lack of liquidity. (Pandey, I.M.,2000, p.14)

Thus, it indicates the bank's ability to pay its current liabilities i.e. day to day financial obligation. Following ratios have been calculated with respect to liquidity ratio.

a) Current Ratio
b) Cash And Bank Balance To Deposit Ratio (Cash Reserve Ratio)
c) Cash And Bank Balance To Current Assets Ratio
d) Investment On Government Securities To Current Assets Ratio
e) Loan And Advance To Current Assets Ratio
f) Fixed Deposits To Total Deposit Ratio
g) Saving Deposit To Total Deposit Ratio

) Income And Expenditure Analysis

The ratio which measure the patterns of income & expenditure of the firm are termed as income & expenditure ratio. These ratios basically measure the contribution of major income source to the total income of the banks. Every enterprise is established with the motive of profit generation from efficient performance. Thus, here an attempt is made to assess the income pattern and sources of the firm which gives the insight to the concern banks for the corrective step if any deficiency is found. The pattern of expenditure of the bank is also important and to be analyzed thoroughly. These types of expenses vary as per nature and types of business of the firm. This ratio is classified into two groups as per the nature,

Income Ratio

a) Interest Income To Total Income Ratio
b) Commission And Discount Income To Total Income Ratio
c) Foreign Exchange Income To Total Income Ratio
d) Dividend Income To Total Income ratio
e) Other income To Total Expenses Ratio

Expenditure Ratio

a) Interest Expenses To Total Expenses Ratio
b) Staff Expenses To Total Expenses Ratio
c) General Expenses To Total Expenses Ratio
d) Bonus Facilities Expenses To Total Expenses Ratio

⟩ Cash Flow Analysis

Cash flow is a statement setting out to flow of cash under distinct heads of sources of funds and their utilization to deterring requirements of cash during the given period and to prepare for its adequate provision. Such cash is basis for carrying on operations, the cash flow statements prepared on an estimated basis for next accounting period will enable the management to plan and coordinate the financial operations properly. The management will know how much funds are needed; as to how much can be generated internally and for how much it should arrange from outside.

3.4.2 Statistical Tools

Various statistical tools can be used in research in order to draw the reliable conclusion according to the financial data available to researcher. For this purpose the researcher in this studies uses following statistical tools:

⟩ Arithmetic Mean

Arithmetic mean of a given set of observations is their sum divided by number of observations, in general x_1, x_2, x_3 ……x_n the given 'n' observations, then their arithmetic mean usually denoted by 'x' is given by

$$\text{Mean } (\bar{X}) = \frac{x}{n}$$

Where, ϕX = Sum of observations.

n = no. of observations

⟩ Standard Deviation (σ)

Standard deviation is absolute measure of dispersion of the data from the arithmetic mean. Standard deviation is usually denoted by small sigma (σ). It is defined as positive square root of the arithmetic mean of the square of the deviation taken from their arithmetic mean.

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{1}{n}} \qquad (X - \bar{X})^2$$

- **Co-efficient Of Variance (C.V.)**

C.V. is the qualitative measure of the dispersion. To compare more than two assets, co-efficient of frequency variation is used. It is relative measurement of dispersion based on standard deviation. Co-efficient of variation is given by following formula,

$$\text{Co-efficient Of Variance (C.V.)} = \frac{\sigma}{\overline{X}} \times 100\%$$

Where, σ = Standard Deviation; $\overline{X}$ = Arithmetic Mean

It is percentage of variation mean, standard deviation being considered as the total variation in average. Smaller C.V. represents more homogenity or uniformity of the data about the average line, while greater C.V. represents the high ranged volatility of the data. In the thesis purpose, C.V. has been employed to compute and analyze the vitality of the data over the study period.

- **Regression Analysis**

Regression analysis is the techniques of studying how the variation in one series is related to variations in another series. Regression analysis is used to estimate the unknown variables by using the relationship between two or more variable. Regression analysis shows how the variables are related. In short, regression is the estimation of unknown values or prediction of one variable from known values of other variables.

A line fit to set of data points to estimate the relationship between two variables is called regression line and lines are expressed algebraically by means of equation called regression equations. The equation of regression line where the dependent variables Y is determined by the independent variables X is

Y = a + bX……………………………………………………(1)

Where,

a = y-intercept and b= Slope of the regression line

In order to develop the trend line for the variables, first we need to find out the value of co-efficient i.e. a and b. The value of a and b are calculated by solving the following normal equations.

According to the principle of least squares, two normal equations for estimating two numerical constants a and b are given by,

$$\sum Y = na + b\sum X \quad \text{.....} \quad (2)$$

$$\sum XY = a\sum X + b\sum X^2 \quad \text{.....} \quad (3)$$

Where,

n = no. of years

) Graphical Presentation

Graphical presentation is a powerful and effective way of highlighting variables. A very common way of presenting data for two variables which have a relationship is in a figure or chart. Not all data can be presented in figures. It works best when the data is continuous. This is a characteristic of parametric data. (Wolf H and Pant, Prem). In this regard pie charts have been used to conduct the relative study of sampled companies.

CHAPTER 4

PRESENTATION AND ANALYSIS OF DATA

This chapter of thesis work presents the data, facts, figures and their interpretation. This thesis work is based on the secondary data. The relevant data collected form secondary sources are presented and analyzed by using financial and statistical tools and techniques. To compare the financial performance of Nepal Investment Bank Ltd and Nepal SBI bank Ltd, ratio analysis has been used. Basically financial performance of any organization is carried out on financial statements of the concerned organization. Financial statement includes balance sheet, income statement, statement of cash flow etc. This information contained on these financial statements of the firm is used by any special group to form qualitative judgment about firm's financial performance and position. The financial performance of any firm is to be analyzed by several view point because there are a number of stakeholders connected to the firm in different means, concerned the performance of the firm. There are several types of ratios. However, according the requirement of the various interest groups, we have classified ratio analysis into major five categories which are analyzed below one by one.

4.1 Performance Measure

Performance measures reflect strategic, operating and financing decisions. A firm is evaluated mainly on the basis of this ratio in the market. The shareholders and prospective investors of the firm look this ratio first. Thus, this ratio is very important to evaluate the firm before making any perspective upon the banks. Under this three measure groups of ratio are discussed.

4.1.1 Profitability Ratio

Profit is the difference between revenue and expenses. Profit is necessary fro the survival of the company and also to meet the expectation of the stakeholders. It is the measure of performance of any business, whether it is doing well or not. It is calculated to measure the operating efficiency of the firm. Profitability ratio shows the combined effects of liquidity management and debt management on operating result. Major types of profitability ratio are as under:

4.1.1.1 Interest Earned To Total Assets Ratio

Table 1 presents the interest earned to total assets of NIBL & NSBIBL over the study period of five years from FY 2059/2060 to FY 2063/2064 (2002/2003 to 2006/2007). The

interest earned on total assets simply reflects how much interest has been generated by mobilizing the assets in the banks. Interest occupies significant place of income for the banks. Generally banks earned interest through lending the collected funds to the needy persons or business enterprises through different scheme and charged a certain percent of interest on the loan amount. Besides lending loans, banks interest providing advances, over drafts and even invest in securities. It can be calculated by this formula,

$$\text{Interest Earned To Total Assets} = \frac{\text{Interest Earned}}{\text{Total Assets}} \times 100\%$$

Interest Earned To Total Assets Ratio
Table 2

(In Lakh Rs.)

Banks	NIBL			NSBIBL		
Years	Interest Earned	Total Assets	Ratio (%)	Interest Earned	Total Assets	Ratio (%)
2059/2060	2,702.96	90,142.50	3.00	1,779.21	75,663.27	2.35
2060/2061	4,052.01	1,32,554.96	3.06	2,376.79	84,404.06	2.82
2061/2062	5,322.51	1,62,740.64	3.27	3,199.42	1,03,453.00	3.09
2062/2063	6,817.95	2,13,301.37	3.20	3,739.49	1,30,359.39	2.87
2063/2064	8,994.57	2,75,908.45	3.26	4,188.55	1,39,012.01	3.01
Mean	3.16			2.83		
S.D.	0.14			0.28		
C.V.	4.44			9.90		

The interest earned ratio to total assets ratio of NIBL is accounted for the highest in FY.2061/2062 with 3.27% and it is accounted for the lowest in FY.2059/2060 with 3.00%. The trend of the ratio is fluctuating. The average of the ratio is 3.16% and its standard deviation is 0.14% & % of C.V. is 4.44%. Likewise, the ratio of NSBIBL is highest in FY.2061/2062 with 3.09% and lowest is 2.35% in FY.2059/2060. The average of the ratio is 2.83% which is lower than the mean of NIBL. The standard deviation & C.V. is 0.28% & 9.90% respectively. The interest earned to total assets of NSBIBL is lesser in average than NIBL because total assets amount of NIBL is higher than that of NSBIBL. Both banks have earned interest in increasing trend as the total assets. While comparing the above statistic of both banks, it is observed that NIBL has used its assets properly than NSBIBL to earn the interest over the study period. As far as, the lower C.V. of the NIBL reflects it is rather consistent than the NSBIBL in term of interest earned.

4.1.1.2 Net Profit To Total Deposit Ratio

The ratio measures the degree of net profit after tax earned by using total deposit. It reflects the relationship of net profit with the total deposit. Bank's key function is to collect the deposit from the customers for making big funds. The performance of the banks mostly relies on the ability to collect the deposit which the bank thereby invests in productive work. This ratio reflects the real picture of overall financial performance as well as its success in profit generation. The reason is that deposits and earnings by utilizing funds are the main aspects of joint venture commercial banks. It is also called return on total deposit. NPAT to total deposit ratio can be computed by using the following formula,

$$\text{Net Profit To Total Deposit} = \frac{\text{Net Profit}}{\text{Total Deposit}} \times 100\%$$

Net Profit To Total Deposit Ratio
Table 3

(In Lakh Rs.)

Banks	NIBL			NSBIBL		
Years	Net Profit	Total Deposit	Ratio (%)	Net Profit	Total Deposit	Ratio (%)
2059/2060	1,168.18	79,227.66	1.47	487.48	65,228.17	0.75
2060/2061	1,526.71	1,15,246.79	1.32	608.07	71,983.27	0.84
2061/2062	2,321.47	1,42,545.74	1.63	573.87	86,547.74	0.66
2062/2063	3,505.36	1,89,273.06	1.85	1,170.02	1,10,020.41	1.06
2063/2064	5,013.98	2,44,888.56	2.05	2,549.09	1,14,452.86	2.23
Mean	1.67			1.11		
S.D.	0.30			0.65		
C.V.	17.96			58.56		

The above table shows that the return on total deposit of NIBL and NSBIBL for five years of time period. The ratio is maximum in FY. 2063/2064 with 2.05% and is lowest in FY.2060/2061 with 1.32%. The average return on net profit to total deposit is 1.67% and its standard deviation is 0.3% while the C.V. of the ratio for NIBL is 17.96%. For NSBIBL the ratio of net profit to total deposit is highest in FY. 2063/2064 with 2.23% and lowest during FY. 2061/2062 with 0.66%. The average of the ratio for NSBIBL appeared 1011% and its standard deviation is 0.65% with C.V. 58.56%. While comparing average ratio of the banks over the period, the NIBL appears to be better than NSBIBL. But as per the C.V. of the ratio is concerned, the C.V. of NIBL is less than that of NSBIBL which indicates that

NSBIBL is more fluctuated than NIBL in the terms of deposit and net profit after tax. Lower net profit to total deposits ratio of NSBIBL is the result of higher total deposits and lower net profit earned by the bank over the study period.

4.1.1.3 Net Profit To Total Asset Ratio

This ratio measures the profitability of all financial resources invested in the firm's assets. This ratio provides the necessary foundation for a company to deliver a good return on equity. A company without a good return on total assets finds it almost impossible to generate a satisfactory ROA. Hence, the higher ratio implies that available resources and tools are employed efficiently and vice versa. If the profit is low over a period, the return on assets also becomes low. In this study, ROA is computed to measure the profitability of all financial resources in bank assets and calculated by applying the following formula,

$$\text{Net Profit To Total Assets} = \frac{\text{Net Profit}}{\text{Total Assets}} \times 100\%$$

Net Profit To Total Assets Ratio
Table 4

(In Lakh Rs.)

Banks	NIBL			NSBIBL		
Years	Net Profit	Total Assets	Ratio (%)	Net Profit	Total Assets	Ratio (%)
2059/2060	1,168.18	90,142.5	1.30	487.48	75,663.27	0.64
2060/2061	1,526.71	1,32,554.96	1.15	608.07	84,404.06	0.72
2061/2062	2,321.47	1,62,740.34	1.43	573.87	1,03,453.73	0.55
2062/2063	3,505.36	2,13,301.38	1.64	1,170.02	1,30,358.39	0.90
2063/2064	5,013.98	2,75,908.45	1.82	2,549.09	1,39,012.01	1.83
Mean	1.47			0.93		
S.D.	0.26			0.52		
C.V.	17.69			55.91		

Looking at the table 4, it is observed that the net profit to total assets is maximum with 1.82% in FY. 2063/2064 and it is minimum in the year of FY. 2060/2061 with 1.15% for NIBL. The average return on total assets of five years of time is 1.47% and its standard deviation is 0.26%. The C.V. of the ration is 17.69%. For NSBIBL, the ratio is appeared the

highest in FY. 2063/2064 with 1.83% and lowest in FY. 2061/2062 with 0.55%. The average of the ratio is 0.93%. Since, the ratio is the output of numerator divided by denominator, the net profit of NSBIBL is less than NIBL employing higher amount of total assets which yield a low return on total assets for NSBIBL. The return on assets ratio may vary by 0.52% as its standard deviation is 0.52% and the C.V. of the ratio of NSBIBL is 55.91%. The average return of NIBL is higher than NSBIBL. It is almost double return ratio for NIBL than NSBIBL. However the volatility rate of NIBL is lower than that of NSBIBL.

4.1.1.4 Net Profit To Net Worth Ratio

It is known as return on net worth. This ratio indicates that how the firms have been utilizing the owners fund. The key objective of any enterprises is to maximize the owners' wealth. Higher this ratio is the consequences of sound management and efficiency of the management. The net profit is obtained from P/L account and net worth is the sum of paid up capital, reserve, surplus and undistributed profit. Higher the ratio indicated higher the return and lower the ratio indicated lower the return. This can be computed from the following formula,

$$\text{Net Profit To Net Wroth} = \frac{\text{Net Profit}}{\text{Net Worth}} \times 100\%$$

Net Profit To Net Worth Ratio
Table 5

(In Lakh Rs.)

Banks	NIBL			NSBIBL		
Years	Net Profit	Net Worth	Ratio (%)	Net Profit	Net Worth	Ratio (%)
2059/2060	1,168.18	6,385.42	18.29	487.48	5,698.52	8.55
2060/2061	1,526.71	7,290.48	20.94	608.07	6,266.37	9.70
2061/2062	2,321.47	11,801.73	19.67	573.87	6,890.13	8.33
2062/2063	3,505.36	14,154.40	24.77	1,170.02	9,823.74	11.91
2063/2064	5,013.98	18,781.24	26.70	2,549.09	11,632.90	21.91
Mean	22.07			12.15		
S.D.	3.53			5.68		
C.V.	15.99			46.74		

The table 5 shows the summarized statistics of NIBL and NSBIBL. The return on net worth has been ranged from 18.29% (In FY. 2059/2060) to 26.70% (In FY. 2063/2064). The average of ratio for NIBL is 22.07%. The ratio of net profit and net worth for NIBL is in fluctuating trend. The return on net worth can be inaccurate by 3.53% in calculation and the C.V. of the ratio is 15.99% for NIBL. As per NSBIBL is concerned, the ratio has been ranged from 8.33% (In FY. 2061/2062) to 21.91% (In FY. 2063/2064). Here, the ratio is also in fluctuating trend. The average of the ratio is 12.15% with 5.68% standard deviation. The C.V. of the ratio is 47.41%. The average return on net worth of NIBL is higher than that of NSBIBL. Looking at the pattern of net worth of both of the bank it is seen that the net worth (the denominator) of NIBL is far better than that of NSBIBL. However, higher amount of net profit of the bank assures higher return to net worth ratio. Looking at the C.V. of the both bank it is seen that the NSBIBL had experienced higher fluctuating during the study period than NIBL did.

4.1.1.5 Return On Risk Assets

Risk assets involve such assets which have high probability to go for bad debt or, turn to be valueless. It involves loans, advances and bill purchased and discounted. This ratio is calculated to find out percentage of net profit after taxes in comparison to risk assets. This ratio is very important to find the proportion of net income yield over a certain period of time by employing risky assets. As we know higher the risk, higher the return so, risk assets yield higher return than non-risky assets.

$$\text{Return On Risk assets} = \frac{\text{Net Profit After Interest And Taxes}}{\text{Risk Assets}} \times 100\%$$

Return On Risk Assets
Table 6

(In Lakh Rs.)

Banks	NIBL			NSBIBL		
Years	Net Profit	Risk Assets	Ratio (%)	Net Profit	Risk Assets	Ratio (%)
2059/2060	1,168.18	57,721.40	2.02	487.48	44,687.20	1.09
2060/2061	1,526.71	71,301.26	2.14	608.07	51,436.62	1.18
2061/2062	2,321.47	1,01,260.56	2.29	573.87	62,138.78	0.92
2062/2063	3,505.36	1,27,762.08	2.74	1,170.02	76,267.36	1.53
2063/2064	5,013.98	1,72,864.27	2.90	2,549.09	94,604.51	2.69
Mean	2.42			1.49		
S.D.	0.39			0.71		
C.V.	16.11			47.65		

Table 6 presents that the return on risky assets is higher for NIBL in FY. 2063/2064 with 2.90% and lowest in FY. 2059/2060 with 2.02%. The ratio for NIBL is in increasing trend.

It might be the change in attitude of the management of the bank to the investment for making higher return. The average of the ratio is 2.42%. the standard deviation and C.V. of the bank are 0.39% and 16.11% respectively. The ratio of net profit and total risky assets for NSBIBL has been ranged from 0.92% (In FY. 2061/2062) to 2.69% (In FY.2063/2064). The mean of the ratio is 1.49% with standard deviation 0.71% and C.V. 47.65%. Average of the ratio is lower for NSBIBL than that of NIBL which states that NIBL is yielding higher return on total risky assets than the NSBIBL. The amount of risk assets of NIBL in compare to NSBIBL is higher and as usual the higher amount of net profit of NIBL yielding higher return on risky assets. The coefficient of variation of NIBL is lower than the NSBIBL which reflects that NIBL is more consistent than NSBIBL in terms of this ratio.

4.1.2 Growth Ratio

This ratio is calculated here to measure the growth of the banks over the study period. This ratio measures how the economic position of bank grows over a period. It is measured how well the bank have been maintaining the economic conditions as compare the growth of the nation as a whole. It is calculated by dividing latest year figure by base year figure from which a compounded growth rate for nth period is found which then, use for calculating the single period growth. For the purpose of thesis work, the growth ratio of operating profit, net profit, EPS, DPS, BVPS and MPS have been calculated. The following formula gives the value of growth.

$$PVIF\ (1+g)^n = FVIF$$

$$\text{Or,}\quad (1+g)^n = \frac{FVIF}{PVIF}$$

$$\text{Or,}\quad (1+g) = \frac{FVIF}{PVIF}^{\frac{1}{n}}$$

$$\text{Or,}\quad g = \frac{FVIF}{PVIF}^{\frac{1}{n}} Z1 \mid 100\%$$

Where,

g = Growth Rate n = No. Of Years

Growth Ratio
Table 7

(In Lakh Rs.)

Banks	NIBL			NSBIBL		
Years	F.Y. 2059/2060	F.Y. 2063/2064	Growth Rate(%)	F.Y. 2059/2060	F.Y. 2063/2064	Growth Rate(%)
Operating Profit	2,005.00	7,275.10	29.40	1,629.92	3,007.90	13.04
EPS	39.56	62.57	9.60	11.47	39.35	27.96
DPS	20.00	30.00	8.45	8.00	47.59	42.85
BVPS	638.54	1,878.12	24.08	134.03	178.04	5.84
MPS	795.00	1,729.00	16.81	255.00	1,176.00	35.76

The table 7 presents the growth of the different financial indicators of both banks. The growth rate of operating profit is 29.40% for NIBL and it is lower for NSBIBL with 13.04% only. The growth rate of net profit is 33.82% and it is 39.21% for NSBIBL which is greater than that of NIBL. The growth rate of EPS of NIBL and NSBIBL is 9.60% and 27.96% respectively. Likewise, the growth rate of MPS, EPS and DPS is positive for both bank which indicate that both bank is able to perform well over the study period. So in aggregate, NSBIBL is comparatively stronger regarding the measures stated above.

4.1.3 Valuation Measures

Valuation ratios are the most comprehensive for the firm is that they reflect the combined effects of return and risk ratio (Weston, J. Fred and Copland Thomas E. p.197). Naturally, the decision that management makes in the day to day operations of the business inevitable affects the value of the firm and its owners, the common shareholders. Besides the ratios mentioned above evaluate the company from an operational perspective, these ratios evaluate the company largely in terms of market values. Out of these most important ones are as follows.

4.1.3.1 Price Earning Ratio (P/E Ratio)

Price earning ratio reflects the ratio of price in which the shares are currently traded in the market and currently reported earning per share. The ratio is widely used by the security analyst to evaluate the firm's performance as expected by investors. The P/E ratio could be calculated by dividing the market price per share by earning per share.

Higher the risk carries higher the discount factor and consequently lowers the P/E ratio. Higher the ratio more the value of the stock that is being ascribed to future earnings as opposed to present earnings. That is to say, likely future growth is what is being valued.

$$\text{P/E Ratio} = \frac{\text{MPS}}{\text{EPS}} \text{ (Times)}$$

P/E Ratio
Table 8

(In Lakh Rs.)

Banks	NIBL			NSBIBL		
Years	**MPS**	**EPS**	**Ratio (Times)**	**MPS**	**EPS**	**Ratio (Times)**
2059/2060	795.00	39.56	20.09	255.00	11.47	22.23
2060/2061	940.00	51.70	18.18	307.00	14.26	21.52
2061/2062	800.00	39.50	20.25	335.00	13.29	25.20
2062/2063	1,260.00	59.35	21.22	612.00	18.27	33.49
2063/2064	1,729.00	62.57	27.63	1,176.00	39.35	29.88
Mean	21.48			26.47		
S.D.	3.61			5.12		
C.V.	16.81			19.34		

As per the table, the price to earnings of NIBL ratio is highest in FY. 2063/2064 at 27.63 times and lowest in FY. 2060/2061 at 18.18 times. The ratio in first 2yrears is in decreasing trend but increases thereafter. The P/E ratio of NSBIBL ranged from 21.52 times in FY. 2060/2061 to 33.49 times in FY. 2062/2063. the ratio for NSBIBL is fluctuating trend. The mean of the ratio for NIBL & NSBIBL are 21.48 times and 26.47 times respectively. The ratio for NSBIBL is higher than that of NIBL. However, the NSBIBL has lower EPS than NIBL but it yield higher P/E ratio. The higher ratio for NSBIBL indicates that NSBIBL has more charm in its shareholders than NIBL. The C.V. of NSBIBL is also higher than that of NIBL which signifies that the ratio is more fluctuated over the study period.

4.1.3.2 Market To Book Value Ratio

Market price is the price of stock quoted in the market for trading and book value of the share is the claim of the shareholders over the company per share held. This ratio is calculated by dividing market price of share by book value per share. The book value per

share is the quotient of shareholder's equity and number of share outstanding. Higher market to book value ratio reflects the firm is earning in a satisfactory level.

$$\text{Market To Book Value Ratio} = \frac{\text{Market Price Per Share}}{\text{Book Value Per Share}} \text{ (Times)}$$

Market To Book Value Ratio
Table 9

(In Lakh Rs.)

Banks	NIBL			NSBIBL		
Years	**MPS**	**BVPS**	**Ratio (Times)**	**MPS**	**BVPS**	**Ratio (Times)**
2059/2060	795.00	638.54	1.24	255.00	134.03	1.90
2060/2061	940.00	729.05	1.28	307.00	146.80	2.09
2061/2062	800.00	1,180.17	0.67	355.00	159.54	2.23
2062/2063	1,260.00	1,415.44	0.89	612.00	151.78	4.03
2063/2064	1,729.00	1,878.12	0.92	1,176.00	178.04	6.60
Mean	1.00			3.37		
S.D.	0.26			2.00		
C.V.	26.00			59.36		

As per the table 9, the market to book value ratio of NIBL ranged from 0.67 times in FY. 2061/2062 to 1.28 times in FY. 2060/2061. The average of the ratio is 1time and the ratio of NIBL may vary by 0.26 times as its standard deviation is 0.26. The C.V. of variation is 26%. For NSBIBL, the ratio is lowest in FY. 2059/2060 with 1.90 times and is highest in FY. 2063/2064 with 6.60 times. the book value of NSBIBL is less than NIBL and lower the denominator of the ratio yield higher the market to book value per share. Looking at the trend of the ratio of NSBIBL, the ratio is in increasing trend. It signifies that the bank has been able to perform as it did in its past year but the ratio of NIBL is in fluctuating trend.

The average of the ratio is 3.37 times and its standard deviation is 2.00 times. This signifies that, NSBIBL is making the earnings at more satisfactory level than NIBL. The C.V. of ratio is 59.36%. The average of the ratio is lower for NIBL than that of NSBIBL and the variability rate of NIBL is also lower than that of NSBIBL.

4.1.3.3 Dividend Yield Ratio

Generally most of the firms retain some position of earnings to strengthen the financial position of the firm and to avail fund for the future purpose. This ratio simply shows the ratio of proportion of earning distributed to shareholders as dividend and proportion of earnings retained in the firm for the future purpose as retained earnings. Higher the ratio reflects higher the proportion of earnings is distributed as dividends.

$$\text{Dividend Yield Ratio} = \frac{\text{Dividend Per Share}}{\text{Earnings Per share}} \text{ X } 100\% \qquad \text{or,}$$

$$\frac{\text{Total Dividends}}{\text{Net Profit}} \text{ X } 100\%$$

Dividend Yield Ratio
Table 10

(In Lakh Rs.)

Banks	NIBL			NSBIBL		
Years	DPS	EPS	Ratio (%)	DPS	EPS	Ratio (%)
2059/2060	20.00	39.56	50.55	8.00	11.47	69.75
2060/2061	15.00	51.70	29.01	0.00	14.26	0.00
2061/2062	12.50	39.50	31.65	0.00	13.29	0.00
2062/2063	55.46	59.35	93.45	5.00	18.27	27.37
2063/2064	30.00	62.57	47.95	47.59	39.35	120.94
Mean	50.52			43.61		
S.D.	25.83			51.79		
C.V.	51.13			118.76		

As per the above table, it is seen that the ratio of NIBL has ranged from 93.45% in FY. 2062/2063 to 29.01% in FY. 2060/2061. The ratio is in fluctuating trend. For NSBIBL the ratio ranged from 120.94% in FY. 2063/2064 to 0% in FY. 2060/2061 & 2061/2062.

The mean of the ratio for NIBL & NSBIBL are 50.52% & 4361% respectively. While considering the pattern of DPS pf the both banks, it is found that the NSBIBL and it is obvious to be lower DPR for NSBIBL in this regard. The average of dividend yield for NIBL is higher than that of NSBIBL, which indicated that the shareholders and the

management as well prefer dividend payout rather than retained earnings. Looking at the C.V. of the ratio, it is seen that the ratio of NSBIBL carries high co-efficient of variation indicating the high range of volatile of the ratio over the study period.

4.2 Operating Efficiency Measures

The key for the success of a firm is their operating efficiency. Having sound management, reliable suppliers, attractive policy and customers becomes worthless if the firm could not operate its function perfectly. So it is stimulated to check the operating efficiency of the banks. Under this measure two major categories of financial ratios are performed as follows.

4.2.1 Activity Ratios

Activity ratios are concerned to the ability of banks to convert its deposits into loan and advances. It measures how the bank is utilizing its collected resources. They indicate the speed with which asset are being converted or turned over. Greater rate of turnover signifies efficient utilization and management of assets and therefore, proper balance on sales and assets is very vital to any firm. To examine the investment and deposit pattern of these banks, the following ratios are calculated.

4.2.1.1 Loan And Advances To Total Deposit Ratio

It shows the relationship of loan and advances to total deposit. It measures the extent to which the bank is successful to utilize the collected deposit from the depositors on loan and advances for making interest or, to make profit. High ratio of this king reflects higher efficiency to use it properly or, the lack of attractive investment opportunities. This can be computed from the following formula.

$$\text{Loan and Advances To Total Deposit Ratio} = \frac{\text{Loan And Advances}}{\text{Total Deposit}} \text{x} 100\%$$

Loan And Advance To Total Deposit Ratio
Table 11

(In Lakh Rs.)

Banks	NIBL			NSBIBL		
Years	Loan & Advance	Total Deposit	Ratio (%)	Loan & Advance	Total Deposit	Ratio (%)
2059/2060	57,721.40	79,227.66	72.86	44,687.20	65,228.17	68.51
2060/2061	71,301.26	1,15,246.79	61.87	51,436.62	71,983.27	71.46
2061/2062	1,01,260.56	1,42,545.74	71.04	62,138.78	86,547.74	71.80
2062/2063	1,27,762.08	1,89,273.06	67.50	76,267.36	1,10,020.41	69.32
2063/2064	1,72,864.27	2,44,888.56	70.59	94,604.51	1,14,452.86	82.66
Mean	68.77			72.75		
S.D.	4.31			5.71		
C.V.	6.27			7.85		

The ratio of loan & advance to total deposit for NIBL ranged from 61.87% in FY. 2060/2061 to 72.86% in FY. 2059/2060. The ratio of NIBL is in fluctuating trend. The average ratio is 68.77% while the ratio of NSBIBL ranged from 68.51% in FY. 2059/2060. to 82.66% in FY. 2063/2064. The ratio of NSBIBL is almost constant for two i.e. FY. 2060/2061 & 2061/2062 and thereafter is in fluctuating trend but in FY. 2063/2064 the bank has increased its deposit utilizing capacity from about 69.32% to 82.66%. The average of the deposit utilizing ratio of NSBIBL is 72.75% which is more than that of NIBL, which indicates that NSBIBL is able to utilize the available fund efficiently than NIBL. The result behind having lower ratio despite carrying higher amount of loan & advance is that its higher amount of total deposits. The standard deviation of NIBL and NSBIBL is 4.31% and 5.71% respectively and the C.V. of NIBL is 6.27% & NSBIBL is 7.85%. Considering the co-efficient of variation, the NSBIBL is less consistent than NIBL.

4.2.1.2 Loan And Advances To Fixed Deposit Ratio

Fixed deposit is regarded as the main source and permanent capital for the banks which the banks can use for long run because such deposit is not to be paid on prompt demand. Fixed deposit is high interest bearing obligation and loan & advances is the major source to generate income for the bank. This ratio is calculated by dividing loan & advance by fixed deposit.

$$\text{Loan and Advances To Fixed Deposit Ratio} = \frac{\text{Loan And Advances}}{\text{Fixed Deposit}} \text{ x100\%}$$

Loan And Advance To Fixed Deposit Ratio
Table 12

(In Lakh Rs.)

Banks	NIBL			NSBIBL		
Years	Loan & Advance	Fixed Deposit	Ratio (%)	Loan & Advance	Fixed Deposit	Ratio (%)
2059/2060	57,721.40	16,728.25	345.05	44,687.20	33,375.75	133.89
2060/2061	71,301.26	22,946.80	310.72	51,436.62	33,522.70	153.44
2061/2062	1,01,260.56	32,122.66	315.23	62,138.78	40,863.59	152.06
2062/2063	1,27,762.08	54,129.70	236.03	76,267.36	61,161.73	124.70
2063/2064	1,72,864.27	75,166.86	229.97	94,604.51	55,174.67	171.46
Mean	287.40			147.11		
S.D.	51.43			18.27		
C.V.	17.89			12.42		

The above table shows the summarized statistics of the banks. The loan & advances to fixed deposit ratio of NIBL ranged from 229.97% in FY. 2063/2064 to 345.05% in FY. 2059/2060. The average of the ratio over the study period is 287.40% and its standard deviation is 51.43%. The C.V. of the ratio for NIBL is 17.89%. As per the NSBIBL is concerned the ratio accounted to be highest in FY. 2062/2063 with 124.70%. The average of the ratio for NSBIBL appeared 147.11%. The ratio of NSBIBL may fluctuated by 18.27% as shown by the standard deviation. The C.V. of the bank is 12.42%. Looking at the co-efficient of variation of both banks, it is found that the NIBL had experienced high fluctuation than NSBIBL during the study period.

4.2.1.3 Loan And Advances To Saving Deposit Ratio

It shows the relationship between loan & advances to saving deposit. Deposit is the most use type of deposit and second highest interest bearing deposit type. It shows the times of loan & advances lend to the lenders with respect to the deposit amount. It is calculated by using the following formula.

$$\text{Loan and Advances To Saving Deposit Ratio} = \frac{\text{Loan And Advances}}{\text{Saving Deposit}} \times 100\%$$

Loan And Advance To Saving Deposit Ratio
Table 13

(In Lakh Rs.)

Banks	NIBL			NSBIBL		
Years	Loan & Advance	Saving Deposit	Ratio (%)	Loan & Advance	Saving Deposit	Ratio (%)
2059/2060	57,721.40	24,340.55	237.14	44,687.20	16,330.28	273.65
2060/2061	71,301.26	48,861.01	145.93	51,436.62	20,430.22	251.77
2061/2062	1,01,260.56	67,035.12	151.06	62,138.78	24,588.01	252.72
2062/2063	1,27,762.08	80,819.81	158.08	76,267.36	28,326.39	269.24
2063/2064	1,72,864.27	1,07,423.32	160.92	94,604.51	32,746.90	288.90
Mean	170.63			267.25		
S.D.	37.64			15.53		
C.V.	22.06			5.81		

As per the table the highest loan & advance to saving deposit is 237.14% in FY. 2059/2060 and it's lowest in FY. 2060/2061 with 145.93% for NIBL and for NSBIBL it ranged from 288.90% in FY. 2063/2064 to 251.77% in FY. 2060/2061. The average of the ratio for NIBL appeared 170.63% and standard deviation appeared to be 37.64%. The C.V. of the ratio over the study period is 22.06%. The mean of loan & advance to saving deposit ratio of NSBIBL is 267.25% with 15.53% standard deviation. The amount of saving deposits of NIBL is higher than NSBIBL and this also yield high loan & advance to saving deposits. The C.V. of NIBL exceeded the C.V. of the vary ratio of NSBIBL which indicates that the NIBL either saving or loan & advance had experienced higher fluctuating over the study period.

4.2.1.4 Performing Assets To Total Assets

Performing assets are those assets which are directly used for revenue generation. Performing assets are invested in bill purchased and discount, investments and money on the short call. Performing assets to total assets ratio shows how efficiently the banks have been successfully utilizing the assets and vice-versa.

$$\text{Performing Assets To Total Asset Ratio} = \frac{\text{Performing Assets}}{\text{Total Assets}} \times 100\%$$

Performing Assets To Total Assets Ratio
Table 14

(In Lakh Rs.)

Banks	NIBL			NSBIBL		
Years	Performing Assets	Total Assets	Ratio (%)	Performing Assets	Total Assets	Ratio (%)
2059/2060	75,173.81	90,142.50	83.39	56,759.95	75,663.27	75.02
2060/2061	1,13,026.09	1,32,554.96	85.27	70,511.83	84,404.06	83.54
2061/2062	1,42,002.45	1,62,740.64	87.26	89,446.72	1,03,453.73	86.46
2062/2063	2,41,550.77	2,13,301.37	113.24	1,16,007.11	1,30,358.39	88.99
2063/2064	1,84,490.75	2,75,908.45	66.87	1,24,699.04	1,39,012.01	89.70
Mean	87.21			84.74		
S.D.	16.66			5.95		
C.V.	19.10			7.02		

Table 14 shows the ratio of performing assets to total assets of both banks. The ratio for NIBL ranged from 66.87% in F.Y. 2063/2064 to 113.24% in F.Y. 2062/2063. The ratio fluctuating trend over the study period. The average and standard deviation of the ratio appeared 87.21% and 16.66% respectively and the C.V. of the ratio is 19.10%. As per the performing assets to total assets concerned for NSBIBL, it ranged from 75.02% in F.Y. 2059/2060 to 89.70% in F.Y. 2063/2064. The ratio for NSBIBL is in increasing trend. The average of the ratio for NSBIBL appeared 84.74% and standard deviation is 5.95%. While comparing the average of the ratio, it is found that the performing assets ratio is higher for NIBL than NSBIBL. This signifies that NIBL has proportionately invested amount of its total assets in performing assets for revenue generation than NSBIBL. This affects further into the profitability of the bank as well. That is why the all return ratio of NIBL is appeared to be better than those of NSBIBL. The C.V. of the ratio for **NSBIBL is quite consistent than NIBL.**

4.2.1.5 Performing Assets To Total Debt

This sort of ratio shows the relationship of performing assets to total debt. This ratio measures the extent to which outsiders fund are invested in performing assets. It is the proportion of what percentage of total debt is utilized for direct revenue generation for the bank investing in performing assets.

$$\text{Performing assets To Total Debt Ratio} = \frac{\text{Performing Assets}}{\text{Total Debt.}} \text{x}100\%$$

Performing Assets To Total Debt Ratio
Table 15

(In Lakh Rs.)

Banks	NIBL			NSBIBL		
Years	Performing Assets	Total Debt	Ratio (%)	Performing Assets	Total Debt	Ratio (%)
2059/2060	75,173.81	83,757.06	89.75	56,759.95	69,964.74	81.13
2060/2061	1,13,026.09	1,25,264.48	90.23	70,511.83	78,137.70	90.24
2061/2062	1,42,002.45	1,50,938.90	94.08	89,446.72	96,563.60	92.63
2062/2063	2,41,550.77	1,99,146.97	121.29	1,16,007.11	1,20,534.65	96.24
2063/2064	1,84,490.75	2,57,127.21	71.75	1,24,699.04	1,27,379.10	97.90
Mean	93.42			91.63		
S.D.	17.82			6.59		
C.V.	19.07			7.19		

The above table presents the performing asset to total debt ratio for five years period. Debt is the interest bearing source of fund and performing is totally in contrast income generating assets. So this ratio is relevant in this regard that to what extent the bank has successfully been utilized outsiders fund for income generating purpose. The ratio for NIBL ranged from 71.75% in F.Y. 2063/2064 to 121.29% in F.Y. 2062/2063. The ratio is fluctuating over the study period. For NSBIBL, it is highest in F.Y. 2063/2064 at 97.90% and lowest in F.Y. 2059/2060 at 81.13%. In contrary to NIBL the ratio for NSBIBL is in increasing trend. The mean of the ratio of NIBL is higher than NSBIBL by 1.79% with 19.07% C.V. It shows that NIBL utilized higher percentage of interest bearing fund for income generating purpose.

4.2.1.6 Non-Performing Assets To Total Assets

Non-performing ratio refers those assets which are not directly involved in income generating purpose. The ratio involves Cash & Bank Balance, Interest receivable, Fixed assets and miscellaneous assets. This ratio shows the extent of the assets which are not directly involved in income generating purpose in respect to total assets.

$$\text{Non-Performance Assets To Total Assets} = \frac{\text{Non - Performing Assets}}{\text{Total Assets}} \text{ x } 100\%$$

Non Performing Assets To Total Assets Ratio
Table 16

(In Lakh Rs.)

Banks	NIBL			NSBIBL		
Years	Non Performing Assets	Total Assets	Ratio (%)	Non Performing Assets	Total Assets	Ratio (%)
2059/2060	19,563.70	90,142.50	21.70	23,600.82	75,663.27	31.19
2060/2061	26,842.90	1,32,554.96	20.25	18,828.20	84,404.06	22.31
2061/2062	29,606.18	1,62,740.64	18.19	19,790.74	1,03,453.73	19.13
2062/2063	38,059.08	2,13,301.37	17.84	18,714.43	1,30,358.39	14.36
2063/2064	47,234.51	2,75,908.45	17.12	14,837.39	1,39,012.01	10.67
Mean	19.02			19.53		
S.D.	1.90			7.89		
C.V.	9.99			40.40		

The table 16 presents the summarized result of non- performing assets to total assets of both banks. Non – Performing assets are kept in the firm for maintaining liquidity position and to assist day to day operations of the bank. Higher this ratio is burden for the bank. The non-performing assets to total assets ratio for NIBL ranged from 18.19% (In F.Y. 2061/2062) to 21.70% (In F.Y. 2059/2060). The average of the ratio is 19.02% and its standard deviation is 1.90%. The C.V. of the ratio is 9.99%. The ratio of NIBL is in decreasing trend. The ratio for NSBIBL had ranged from 10.67% in F.Y. 2063/2064 to 31.19% in F.Y. 2059/2060. Mean ratio for NSBIBL is 19.53% which is more than that of NIBL over the study period. This indicates that NSBIBL has invested higher proportion of total assets in non-performing assets. The C.V. or the ratio is 40.40%, which is more than the C.V. of NSBIBL implies that the NSBIBL is less consistent than NIBL in terms of non-performing assets.

4.2.1.7 Investment To Total Deposit Ratio

Investment includes investment in government securities and others. This ratio reflects the proportion of investment in government securities and other in relation to the total deposit of the bank. Investment is a major function of the bank. Therefore this ratio tries to shows how much of total deposits are invested in the market. This ratio can be calculated as follows.

$$\text{Investment to Total Deposit Ratio} = \frac{\text{Investment}}{\text{Total Deposit}} \text{x} 100\%$$

Investment To Total Deposit Ratio
Table 17

(In Lakh Rs.)

Banks	NIBL			NSBIBL		
Years	Investment	Total Deposit	Ratio (%)	Investment	Total Deposit	Ratio (%)
2059/2060	17,052.41	79,227.66	21.52	12,072.75	65,228.17	18.51
2060/2061	38,624.83	1,15,246.79	33.51	19,075.21	71,983.27	26.50
2061/2062	39,341.89	1,42,545.74	27.60	26,076.80	86,547.74	30.13
2062/2063	56,028.67	1,89,273.06	29.60	37,589.75	1,10,020.41	34.17
2063/2064	65,056.80	2,44,888.56	26.57	26,594.53	1,14,452.86	23.24
Mean	27.76			26.51		
S.D.	4.38			6.05		
C.V.	15.78			22.82		

Table above presents the ratio of investment to total deposits for five years period. The ratio for NIBL ranged from 21.52% in FY. 2059/2060 to 33.51% in FY. 2060/2061. The ratio for NIBL is in fluctuating trend. Likewise, for NSBIBL the ratio ranged from 18.51% in FY. 2059/2060 to 34.17% in FY. 2062/2063 and its ratio is also same as that of NIBL.

The average investment of NIBL is higher than that of NSBIBL and the deposit of NIBL is also greater. Therefore, the average of the ratio is higher for NIBL than that of NSBIBL. It implies that NIBL has invested higher proportionate of its collected fund. The C.V. is higher for NSBIBL which indicates that the ratio of NSBIBL is highly fluctuated over the study period than that of NIBL.

4.2.2 Cost Effectiveness Measures

Any firm incurs several kinds of costs. For the success of the firm, the firm should be able to manage its cost effectively and maintain in an optimal level. Cost management and profit generation move side by side. This sort of ratios measures the effectiveness of cost management of the banks. Some important cost effectiveness ratios of banks are presented below.

4.2.2.1 Personnel Expenses To Total Income Ratio

Personal expenses stands the second major cost center of the bank after interest paid. It involves salaries, allowances and provident fund. The ratio measures the proportion of

personal expenses incurred in total income of the bank. High ratio is unfavorable from the view point of the bank. This ratio is calculated as follows:

$$\text{Personal Expenses To Total Income Ratio} = \frac{\text{Personnel Expenses}}{\text{Total Income}} \text{x} 100\%$$

Personnel Expenses To Total Income Ratio
Table 18

(In Lakh Rs.)

Banks	NIBL			NSBIBL		
Years	Personnel Expenses	Total Operating Income	Ratio (%)	Personnel Expenses	Total Operating Income	Ratio (%)
2059/2060	612.8	5,774.44	10.61	337.31	5,659.07	5.96
2060/2061	897.49	9,119.46	9.84	325.10	6,116.07	5.32
2061/2062	970.04	11,394.36	8.51	375.82	7,175.45	5.23
2062/2063	1,206.64	9,593.87	12.58	505.39	4,648.99	10.87
2063/2064	1,453.71	12,460.30	11.67	532.32	5,335.11	9.98
Mean	10.64			7.47		
S.D.	1.58			2.73		
C.V.	14.85			36.54		

According to above table, the bank has incurred highest proportion of personnel expenses in FY. 2062/2063 with 12.58% and it is lowest in FY. 2061/2062 with 8.51%. The ratio for NIBL is in fluctuating trend. The ratio of NSBIBL is highest in FY. 2062/2063 with 10.87% and is lowest in FY. 2061/2062 with 5.23%.

Looking at the average of the ratio, NSBIBL's ratio is lower than that of NIBL by 3.17%. The NSBIBL incurs less personnel expenses in compare to NIBL. The C.V. of the ratio of NSBIBL is highly fluctuated than that of NIBL over the study period as reflected by the higher co-efficient of variation.

4.2.2.2 Other General Expenses To Total Operating Income Ratio

General expenses involve operating expenses, miscellaneous expenses and other expenses. For the smooth running of day to day operation of a firm, it has to incur different expenses such as stationery, power, water, telephone, etc. The house rent, building, maintenance and

repairs, commissions & discount, board of directors meeting allowances, entertainment expenses, audit fee, etc. This ratio is calculated as follows.

$$\text{Other General Expenses To Total Operating Income Ratio} = \frac{\text{Other General Expenses}}{\text{Total Operating Income}} \times 100\%$$

Other General Expenses To Total Operating Income Ratio
Table 19

(In Lakh Rs.)

Banks	NIBL			NSBIBL		
Years	General Expenses	Total Operating Income	Ratio (%)	General Expenses	Total Operating Income	Ratio (%)
2059/2060	420.96	5,774.44	7.29	245.91	5,659.07	4.35
2060/2061	576.39	9,119.46	6.32	255.79	6,116.07	4.18
2061/2062	665.74	11,394.36	5.84	302.31	7,175.45	4.21
2062/2063	677.32	9,593.87	7.06	308.32	4,648.99	6.63
2063/2064	823.04	12,460.30	6.61	374.34	5,335.11	7.02
Mean	6.62			5.28		
S.D.	0.58			1.42		
C.V.	8.76			26.90		

Table above presents the summarized result of other general expenses to total operating ratio of two sampled banks. As per the table, the ratio for NIBL ranged from 5.84% in FY. 2061/2062 to 7.29% in FY. 2059/2060. Likewise for NSBIBL this ratio ranged from 4.18% in FY. 2060/2061 to 7.02% in FY. 2063/2064.

The mean of the ratio of NIBL & NSBIBL are 6.62% & 5.28% respectively. Therefore, the NIBL has incurred higher proportion of general expenses in compare to NSBIBL. Higher % or proportion of other general expenses signifies the insignificance in controlling its cost in day to day functioning. The C.V. of NSBIBL is higher than that of NIBL which signifies that the ratio of NSBIBL is more volatile than NIBL. Therefore NIBL has to concentrate on reducing its cost incurred.

4.3 Financial Policy Measures

Financial policy refers to the policy adapted by a firm regarding its overall aspects of the financial need. The comparative financial strength and weakness of any firm is evaluated by financial policy measure. Financial policy guidelines the firm in making the decision related to capital structure, liquidity position and fund procurement. These measures have been applied here to measure the comparative performance of the sampled banks with regard to strategic decisions as well as to investment management and cost management. For the study two types of financial policy have been considered. They are,

4.3.1 Leverage Or Capital Structure Ratio

Structure refers to the composition of debt and equity in the capital structure. Debts and equity are the long-term obligations of the bank and others liabilities that appears in the liability end of balance sheet are termed as short-term obligations. The ratio is used to measure what types of proportion of debt to equity the bank in its capital structure had used. The different mix of debt and equity can be maintained in capital structure but an optimum is one that maximizes the financial risk of bank as well as overall cost of funds and maximizes the wealth of shareholders as well as the stock price in the market.

4.3.1.1 Total Debt Ratio

This ratio reflects the external obligation of the firm in relation to the total assets. It indicates the financial contribution of outsiders and owners on total assets of the firm. It also measures the financial security of outsiders. Generally creditors prefer a low debt ratio where as, owners prefer high debt ratio in order to magnify their earnings on the one hand and to maintain their concentrated control over the firm. Higher the ratio depicts higher the contribution of debt in total assets consequently higher the risk association.

$$\text{Total Debt. Ratio} = \frac{\text{Total Debt}}{\text{Total Assets}} \text{ x } 100\%$$

Total Debt To Total Assets Ratio
Table 20

(In Lakh Rs.)

Banks	NIBL			NSBIBL		
Years	Total Debt	Total Assets	Ratio (%)	Total Debt	Total Assets	Ratio (%)
2059/2060	83,757.06	90,142.50	92.92	69,964.74	75,663.27	92.47
2060/2061	1,25,264.48	1,32,554.96	94.50	78,137.70	84,404.06	92.58
2061/2062	1,50,938.90	1,62,740.64	92.75	96,563.60	1,03,453.73	93.34
2062/2063	1,99,146.97	2,13,301.37	93.36	1,20,534.65	1,30,358.39	92.46
2063/2064	2,57,127.21	2,75,908.44	93.19	1,27,379.10	1,39,012.01	91.63
Mean	93.34			92.49		
S.D.	0.69			0.61		
C.V.	0.74			0.40		

As per the table 20, the total debt ratio for NIBL is highest in FY. 2060/2061 with 94.50% and it is lowest in FY. 2061/2062 with 92.75%. The ratio is aggregately in fluctuating trend. For NSBIBL, the ratio ranged from 91.63% in FY. 2063/2064 to 93.34% in FY. 2061/2062.

The mean of the ratio of NIBL is 93.34% which is higher than NSBIBL i.e. 92.49%, indicates that NIBL is high levered than NSBIBL. As the debt of the firm indicates, the risk associated to the firm also increases in the same proportion, so in this context NIBL is much risky in compare to NSBIBL. Looking at the C.V. of both banks, debt ratio is found that NIBL has fluctuated in a high range in terms of debt ratio than NSBIBL.

4.3.1.2 Leverage Factor

Leverage factor is the ratio of shareholders' equity to total assets of the firm. It measures the shareholders contribution in total assets of the firm. Higher the ratio reflects high contribution of shareholders in assets of the firm. In general case, higher ratio is favorable for the bank. It is calculated as follows:

$$\text{Leverage Factor} = \frac{\text{Shareholders' Equity}}{\text{Total Assets}} \text{ x } 100\%$$

Leverage Factor
Table 21

(In Lakh Rs.)

Banks	NIBL			NSBIBL		
Years	Shareholders' Equity	Total Assets	Ratio (%)	Shareholders' Equity	Total Assets	Ratio (%)
2059/2060	6,385.42	90142.50	7.08	5,698.52	75,663.27	7.53
2060/2061	7,290.48	1,32,554.96	5.50	6,266.37	84,404.06	7.42
2061/2062	11,801.73	1,62,740.64	7.25	6,890.13	1,03,453.73	6.66
2062/2063	14,154.40	2,13,301.37	6.64	9,823.74	1,30,358.39	7.54
2063/2064	18,781.24	2,75,908.44	6.81	11,632.90	1,39,012.01	8.37
Mean	11,682.65	1,74,929.58	6.66	8,062.33	1,06,578.29	7.50
S.D.	0.69			0.61		
C.V.	10.37			8.13		

The table above shows the summarized statistics of NIBL and NSBIBL over the study period. The table shows the leverage factor of NIBL ranged from 5.50% in FY. 2060/2061 to 7.25% in FY. 2061/2062. However, the contribution of shareholders equity in total assets is in fluctuating trend. Similarly, the leverage factor for NSBIBL ranged from 6.66% in FY. 2061/2062 to 8.37% in FY. 2063/2064.

The average shareholders' equity of NIBL is 11682.65 > 8062.33 and the total assets is also greater than NSBIBL. Therefore the leverage factor of NSBIBL is less than NIBL and lower the leverage factor of the firm is assumed to be risky firm. The mean of the ratio of NIBL and NSBIBL are 6.66% and 7.50% respectively. The lower ratio of NIBL indicated that this bank has used more debt in the capital structure than NSBIBL did, consequently bearing high risk. The C.V. of NIBL is higher than that of NSBIBL which says that the ratio of NIBL over the study period is more heterogeneous than that of NSBIBL.

4.3.1.3 Capital Adequacy Ratio

Banks should hold an adequate level of capital as per the requirement. Capital is the blood of the any firm. How much capital should be held is a burning issue for bank. Holding excess capital than requirement will have higher holding cost and lower return from their investment. Similarly, any short in capital will have disadvantages of inadequacy.

In this regard NRB prescribes how much capital is required by a commercial bank to meet the capital adequacy. NRB has issued the standards of capital adequacy ratio (capital to total deposit) as 2.5% until 1989 and 3.5% until mid July 1900. However, in accordance to the

latest directive of NRB, the commercial bank should maintain their capital fund of 8% by mid July 1992 and thereafter.

$$\text{Capital Adequacy Ratio} = \frac{\text{Capital Fund}}{\text{Total Deposit}} \times 100\%$$

Capital Adequacy Ratio
Table *22*

(In Lakh Rs.)

Banks	NIBL			NSBIBL		
Years	**Capital Fund**	**Total Deposit**	**Ratio (%)**	**Capital Fund**	**Total Deposit**	**Ratio (%)**
2059/2060	6,385.42	79,227.66	8.06	5,698.52	65,228.17	8.74
2060/2061	7,290.48	1,15,246.79	6.33	6,266.37	71,983.23	8.71
2061/2062	11,801.73	1,42,545.74	8.28	6,890.13	86,547.74	7.96
2062/2063	14,154.40	1,89,273.06	7.48	9,823.74	1,10,020.41	8.93
2063/2064	18,781.24	2,44,888.56	7.67	11,632.90	1,14,452.86	10.16
Mean	11,682.65	1,54,236.36	7.56	8,062.33	89,646.48	8.90
S.D.	0.75			0.80		
C.V.	9.92			8.99		

The average capital fund of NIBL is Rs. 11,682.65 and total deposit is Rs. 15,423.36. NSBIBL's total capital fund is Rs. 8062.33 and its total deposit is Rs. 89646.48. NIBL has higher amount of average capital fund and total deposit but it has lower percentage of capital adequacy ratio even not meeting the standard of NRB. The table shows the capital adequacy ratio of NIBL which ranged between 6.33% in FY. 2060/2061 to 8.28% in FY. 2061/2062. The ratio is in fluctuating trend. Likewise, the ratio of NIBL is highest in FY.2063/2064 with 10.16% and lowest in FY. 2060/2061 with 8.71%. The ratio for NSBIBL decreased till FY. 2061/2062 but increases thereafter. The mean of the ratio of the ratio of NIBL is 7.56% which is less than that of NSBIBL with 8.90%.

4.3.1.4 Coverage Ratio

Coverage ratios are designated to relate the financial charge of a firm to its ability to service them (Van Horne, J. C., p.700). This ratio measures the interest obligation on the outsiders' fund with respect to the earnings of the firm. This ratio measures the ability of the firm to cover the outside obligations.

4.3.1.4.1 Interest Coverage Ratio

This ratio is called time interest ratio (TIE). Time interest ratio measures the extent to which operating income can decline before the firm is unable to meet its annual interest costs.

Failure to meet this obligation can bring action by the firm's creditors, possibly resulting in bankruptcy. This ratio is determined by dividing earnings before interest and taxes (EBIT) by the interest charges can be presented below,

$$\text{Interest Coverage Ratio} = \frac{\text{EBIT}}{\text{Total Interest Charge}} \text{ x (Times)}$$

Interest Coverage Ratio
Table *23*

(In Lakh Rs.)

Banks	NIBL			NSBIBL		
Years	**EBIT**	**Total Interest Charge**	**Ratio (Times)**	**EBIT**	**Total Interest Charge**	**Ratio (Times)**
2059/2060	2,004.84	1,892.14	1.06	1,811.02	2,918.20	0.62
2060/2061	3,225.65	3,262.02	0.99	1,561.97	2,559.19	0.61
2061/2062	4,740.85	3,545.49	1.34	1,963.13	2,584.30	0.76
2062/2063	6,087.22	4,909.47	1.24	2,197.40	3,347.70	0.66
2063/2064	8,530.94	6,855.30	1.24	3,790.49	4,122.62	0.92
Mean	4,917.90	4,092.88	1.17	2,264.80	3,106.40	0.71
S.D.	0.17			0.02		
C.V.	14.53			19.72		

In accordance to the table, the average EBIT of NIBL is Rs. 4,917.90 which is higher than NSBIBL i.e. Rs. 2,264.80 and total interest charge for NIBL is Rs. 4,092.88 which is also more than Rs. 3,106.40 for NSBIBL. More interestingly NIBL pays interest charges on outsiders fund over the study period. As reflected in the table the interest coverage ratio of NIBL is highest in F.Y. 2061/2062 with 1.34 times and the bank had poorest ability to cover its obligation in F.Y. 2060/2061 with 0.99 times. For NSBIBL the ratio is highest in F.Y. 2063/2064 with 0.92 times and it is lowest in F.Y. 2060/2061 with 0.61 times.

The mean of the ratio for NIBL is higher than that of NSBIBL. Higher interest coverage ratio of NIBL reflects that it has higher ability to pay the interest obligation in compare to NSBIBL. Both of the banks are covering its interest charges by a low margin of safety. Thus, this ratio reinforces our conclusion based on the debt ratio that the bank would face difficulties if the banks try to increase its interest obligation.

4.3.2 Liquidity Ratio

Liquidity of a firm refers to the sound solvency position of a firm to meet its obligations. Liquidity ratio measures the ability of a firm to meet its short – term obligations. Liquidity of a bank should be considered as the most important factor for its existence. Any bank perceived as illiquid cannot attract deposit from public. Moreover, inadequate liquidity leads to runs in the banks and probably bankruptcy thereof.

Bank's liquidity constitutes cash and bank balance as the private reserve. Cash and bank balance are idle assets, which can be placed and invested, thereby earning some interest but not to the extent of loans and advance. Liquidity ratio is the relationship between cash and cash budgets and cash and fund; but liquidity ratios, by establishing a relationship between cash and other current assets to current obligation, provide a guide measure of liquidity. (Panday. I. M' "Financial Analysis", Financial Management)

4.3.2.1 Current Ratio

Current ratio is the measure of the firm's short – term solvency. Current ratio is also known as "working capital ratio". It indicates the availability of current assets in rupees for ever one rupee of current liabilities. Ratio greater than unity refers that the firm has more current assets than the liabilities. Current ratio is simply the ratio of current assets and current liabilities.

Current assets involves those assets which can be converted into cash and bank balance within as accounting period such as cash and bank balance, investment in treasury bills, money at short notice and placement, prepaid expenses, debtors, bills receivable, stock, etc whereas current liabilities involves these liabilities of a firm which are paid within one year, like current payment, cash margin, current deposits, saving deposits, inter bank reconciliation account, bills payable, and provision for taxation.

The proportion of current ratio of 2:1 is supposed to be the idle. This conventional rule is based on the assumption that even if the current assets are decreased by half the firm can meet its obligations. The standard of 2:1 is not a hard and fast rule for current ratio. The ratio of the firm depends upon the kind of the business it does as well. If the firm is a service rendering firm it is considered to be enough to be 1:1 ratio. It can be computed by using following formula,

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}} \text{ (Times)}$$

Current Ratio
Table 24

(In Lakh Rs.)

Banks	NIBL			NSBIBL		
Years	Current Assets	Current Liabilities	Ratio (Times)	Current Assets	Current Liabilities	Ratio (Times)
2059/2060	26,717.76	83,757.06	0.31	25,408.09	69,964.74	0.36
2060/2061	53,994.06	1,25,264.48	0.43	27,719.47	78,137.69	0.35
2061/2062	54,146.69	1,50,938.90	0.35	34,545.37	96,563.60	0.35
2062/2063	80,093.90	1,93,646.97	0.41	50,921.33	1,18,534.65	0.42
2063/2064	93,101.64	2,49,127.21	0.37	41,321.43	1,25,379.09	0.32
Mean	0.37			0.36		
S.D.	0.10			0.10		
C.V.	27.03			27.78		

The above table represents the summarized calculation of current ratio of NIBL and NSBIBL. The current ratio for NIBL is highest in F.Y. 2060/2061 is 0.43 times and their lowest figure is 0.31 times in F.Y. 2059/2060. The ratio for bank is less than the general standard i.e. 2:1. However, banks are the service rendering organization therefore 1:1 ratio for the bank is also a satisfactory level. The current ratio for NIBL is so decreased in F.Y.2059/2063 is the lowest one & the ratio is in fluctuating trend. The average of the ratio is 0.37 times over the 5year tenure which is less than 1. The C.V. of the ratio is 27.03%. Similarly, the ratio for NSBIBL ranged from 0.32 times (In F.Y. 2063/2064) to 0.42 times (In F.Y. 2062/2063). Here, the ratio is also in fluctuating trend. The mean ratio of NSBIBL is even less than 1:1. The C.V. of the ratio for NSBIBL bank is 27.78% which is more than that of NIBL, which indicated that NIBL is more consistent than NSBIBL in this regards.

4.3.2.2 Cash And Bank Balance To Total Deposit (Cash Reserve Ratio)

The table shows the comparative cash and bank balance to deposit ratio (excluding fixed deposit). Cash and bank balance to total deposit measures the percentage of cash and bank balance maintained by NIBL and NSBIBL in order to honor the cheques presented by its depositors excluding fixed deposit. A high ratio represents the greater ability to meet their all types of prompt demand of cash payment. But too high ratio of cash and bank balance to total deposits may be unsuitable and harmful because it affects their profitability position and also too low ratio is unfavorable as capital will be tied up and opportunity cost will be higher. Banks will have to maintain enough cash and bank balance to gain and retain confidence of their customers. This is computed by using the following formula,

$$\text{Cash and Bank Balance To Total Deposit (Cash Reserve Ratio)} = \frac{\text{Cash \& Bank Banance}}{\text{Total Deposit}} \times 100\%$$

Cash And Bank Balance To Total Deposit Ratio (Cash Reserve Ratio)
Table *25*

(In Lakh Rs.)

Banks	**NIBL**			**NSBIBL**		
Years	**Cash And Bank Balance**	**Total Deposit**	**Ratio (%)**	**Cash And Bank Balance**	**Total Deposit**	**Ratio (%)**
2059/2060	9,265.36	79,227.66	11.69	13,335.33	65,228.17	20.44
2060/2061	12,269.23	1,15,246.80	10.65	8,644.26	71,983.27	12.01
2061/2062	13,404.81	1,42,545.74	9.40	7,237.45	86,547.74	8.36
2062/2063	20,886.27	1,89,273.06	11.03	8,703.11	1,10,020.40	7.91
2063/2064	21,453.36	2,44,888.56	8.76	8,442.09	1,14,452.86	7.38
Mean	15,455.80	1,54,236.36	10.31	9,272.44	89,646.48	11.22
S.D.	1.20			5.47		
C.V.	11.63			48.75		

Above table presents that average cash and bank balance of NIBL is Rs. 15,455.80 > Rs. 9,272.44 and the total deposit of NIBL is also more than that of NSBIBL. Cash and bank balance to total deposit ratio of NIBL ranged from 8.76% (In F.Y. 2063/2064) to 20.65% (In F.Y. 2060/2061). The trend of the ratio is fluctuating over the study period. The mean of the ratio is 10.31% and its co-efficient of variation is 11.63%. For NSBIBL, the ratio had ranged from 7.38% (In F.Y. 2063/2064) to 20.44% (In F.Y. 2059/2060). The ratio for NSBIBL is gradually decreasing as the time passes. The average of the of ratio is 11.22% and its co-efficient of variation is 48.75%. While comparing the ratio of the banks it is found that the mean ratio of NIBL is higher than that of NSBIBL. This indicated that NIBL maintained higher liquidity ratio than NSBIBL. But the C.V. of NSBIBL is higher than NIBL which indicates that NIBL's cash and bank balance is consistent than that of NIBL.

4.3.2.3 Cash And Bank Balance To Current Assets Ratio

This ratio reflects the position of cash and bank balance in total of current assets. Cash and bank balance are highly liquid assets than other assets. This ratio measures the ability of the bank to payout the total call made on current deposit. This ratio indicates that, if the

ratio is higher there is high margin and if lower, the bank is less liquid. The ratio is calculated by using following formula,

$$\text{Cash and Bank Balance to Current Assets Ratio} = \frac{\text{Cash and Bank Balance}}{\text{Current Assets}} \times 100\%$$

Cash And Bank Balance To Current Assets Ratio
Table 26

(In Lakh Rs.)

Banks	NIBL			NSBIBL		
Years	Cash And Bank Balance	Current Assets	Ratio (%)	Cash And Bank Balance	Current Assets	Ratio (%)
2059/2060	9,265.36	26,717.76	34.67	13,335.33	25,408.09	52.48
2060/2061	12,269.23	53,994.06	22.72	8,644.26	27,719.47	31.18
2061/2062	13,404.81	54,146.69	24.75	7,237.45	34,545.37	20.95
2062/2063	20,886.27	80,093.90	26.07	8,703.11	50,921.33	17.09
2063/2064	21,453.36	93,101.64	23.04	8,442.09	41,321.43	20.43
Mean	15,455.81	61,610.81	26.25	9,272.45	35,983.14	28.42
S.D.	4.89			14.44		
C.V.	18.62			50.80		

Table presents the cash and bank balance to current assets ratio of NIBL ranged from 22.72% in F.Y. 2060/2061 to 34.67% in F.Y. 2059/2060. The ratio is in fluctuating trend over the period of study. The same ratio of NSBIBL is highest in F.Y. 2059/2060 with 52.48% and it is lowest in F.Y. 2062/2063 at 17.09%. In aggregate the ratio is decreasing year to year except in F.Y. 2063/2064.

The average of the ratio of NSBIBL is higher than that of NIBL by 26.25%. Current assets involve cash and bank balance, investment, money at short call, receivables and loan & advances. Among them cash and bank balance is the most liquid assets which can be readily be used for any kind of disbursement. This indicated that the NSBIBL has kept high proportion of cash and bank balance in its current assets in compare to NIBL. However the coefficient of variation of NSBIBL reflects that the bank's ratio has experienced high range of fluctuation.

4.3.2.4 Investment On Government Securities To Current Assets

Government securities are the safest finance security to be invested. It carries zero percentage of risk. However the returns on government securities are very low in compare to other securities. Even though the excess cash and bank balance which remains in the banks are non earning assets. Thus instead of keeping of fund idle, it is better to invest on government securities. This ratio shows the proportion of current assets invested in terms of government securities.

$$\text{Investment on Govt. Securities to Current Assets} = \frac{\text{Investment on Govt. Securities}}{\text{Current Assets}} \times 100\%$$

Investment On Government Securities To Total Assets Ratio
Table 27

(In Lakh Rs.)

Banks	NIBL			NSBIBL		
Years	Investment In Govt. Securities	Current Assets	Ratio (%)	Investment In Govt. Securities	Current Assets	Ratio (%)
2059/2060	4,000.00	26,717.76	14.97	11,893.89	25,408.09	46.81
2060/2061	20,011.00	53,994.06	37.06	18,896.35	27,719.47	68.16
2061/2062	19,485.00	54,146.69	35.98	25,881.41	34,545.37	74.92
2062/2063	25,223.00	80,093.90	31.49	35,917.73	50,921.33	70.53
2063/2064	32,564.00	93,101.64	34.97	23,455.80	41,321.43	56.76
Mean	30.89			63.43		
S.D.	9.14			11.46		
C.V.	29.58			18.06		

According to the table, the investment on government securities to current ratio is highest in F.Y. 2060/2061 at 37.06% and it is lowest in F.Y. 2059/2060 at 14.97%. The ratio is in fluctuating trend. Likewise, the same ratio of NSBIBL is highest in F.Y. 2061/2062 at 74.92% and it is lowest in F.Y. 2059/2060 with 46.81%. The ratio is also in increasing trend up to F.Y. 2061/2062 and decreases thereafter.

The mean of the ratio of NIBL is less than that of NSBIBL. This discloses that NSBIBL has invested high level of collection fund in government fund than NIBL. Only considering this factor NSBIBL has carried low level of business risk by investing into higher proportion of collected fund. Looking at the C.V. of the ratio, it is found that NIBL's ratio highly fluctuated over the study period.

4.3.2.5 Loan And Advances To Current Assets Ratio

This ratio measures how far the bank has utilized its current assets in the form of loan and advances. The loan and advances include bills discounted and purchase, overdraft loans, cash credit, etc. If the bank is able to deploy its large percentage of current assets in the form of loan and advances, greater will be the amount of profit that help the bank to operate smoothly forever. It is calculated by dividing loan and advances to total assets.

$$\text{Loan and Advances to Current Assets Ratio} = \frac{\text{Loan \& Advances}}{\text{Current Assets}} \times 100\%$$

Loan And Advances To Current Assets Ratio
Table 28

(In Lakh Rs.)

Banks	NIBL			NSBIBL		
Years	Loan And Advances	Current Assets	Ratio (%)	Loan And Advances	Current Assets	Ratio (%)
2059/2060	5,7721.40	26,717.76	216.04	44,687.20	25,408.09	175.87
2060/2061	7,1301.26	53,994.06	132.05	51,436.62	27,719.47	185.56
2061/2062	10,1260.56	54,146.69	187.01	62,138.78	34,545.37	179.87
2062/2063	1,27,762.08	80,093.90	159.51	76,267.36	50,921.33	149.77
2063/2064	1,72,864.27	93,101.64	185.67	94,604.51	41,321.43	228.94
Mean	176.05			184.00		
S.D.	31.71			28.63		
C.V.	18.01			15.55		

As per the above table, the ratio of loan and advances to current assets for NIBL ranged from 132.05% in F.Y. 2060/2061 to 216.04% in F.Y. 2059/2060. The ratio has been fluctuated up and down over the study period of five years. The ratio of NSBIBL is highest in F.Y. 2063/2064 with 228.94% and it is lowest in F.Y. 2062/2063 with 149.77%. The average of the ratio of NSBIBL is higher than that of NIBL. This implies that NSBIBL has utilized its current assets more in form of loan & advances. However, the C.V. of the ratio of NIBL is higher that of NSBIBL which means that NSBIBL is more consistent in terms of current assets and Loan & advances.

4.3.2.6 Fixed Deposit To Total Deposit Ratio

Fixed deposit is high interest bearing deposits and can also be withdrawn only on the expiry of deposit period. Total deposit encompass saving deposits, fixed deposits, current deposits, and call and short deposit and others. Out of these form of deposit, the depositor keeps fixed deposits for a certain period of time whose maturity period are already known to the banks. Thus, this ratio helps to know how much amount of fixed deposit have been collected by the banks with respect to total deposit. It is calculated by dividing fixed deposit to total deposit.

$$\text{Fixed Deposit to Total Deposit Ratio} = \frac{\text{Fixed Deposits}}{\text{Total Deposits}} \times 100$$

Fixed Deposit To Total Deposit Ratio
Table 29

(In Lakh Rs.)

Banks	NIBL			NSBIBL		
Years	Fixed Deposit	Total Deposit	Ratio (%)	Fixed Deposit	Total Deposit	Ratio (%)
2059/2060	16,728.25	79,227.66	21.11	44,687.20	65,228.17	68.50
2060/2061	22,946.80	1,15,246.79	19.91	51,436.62	71,983.27	71.45
2061/2062	32,122.66	1,42,545.74	22.53	62,138.78	86,547.74	71.79
2062/2063	54,129.70	1,89,273.06	28.59	76,267.36	1,10,020.41	69.32
2063/2064	75,166.86	2,44,888.56	30.69	94,604.51	1,14,452.86	82.65
Mean	24.56			72.74		
S.D.	4.78			5.71		
C.V.	19.46			7.84		

As per the table, the ratio of fixed deposit to total deposit is highest for NIBL in F.Y.2063/2064 and it is lowest in F.Y. 2060/2061 at 19.91%. The ratio of NIBL is dramatically decline in F.Y. 2060/2061 in compares to previous year. For NSBIBL the ratio of fixed deposit to total deposit is highest in F.Y. 2063/2064 with 82.65% and it is lowest in F.Y. 2059/2060 with 68.50%. The ratio of NSBIBL bank is gradually increasing until F.Y. 2061/2062 but in F.Y. 2062/2063 it decrease & again increase thereafter.

The mean of the ratio of NIBL & NSBIBL are 24.56% & 72.74% respectively. The mean of the ratio of NIBL is less than that of NSBIBL which reflects that NSBIBL has collected the deposits from fixed deposits. NSBIIBL can generate high profit than NIBL by investing the collected in long term loans since the fund available from fixed deposit is higher. On the other hand, if the investment decision is not taken properly they may face the problem of high interest charge for the fixed deposit and it also provides high percentage of liquidity than other deposits because the depositors are allowed to withdraw the deposit amount after the maturity period only which let the bank use those fund freely for a certain period of time without maintaining liquidity balance until maturity period.

4.3.2.7 Saving Deposit To Total Deposit Ratio

Saving deposits maturity period cannot be anticipated. However these deposits are restricted to be freely withdrawn from bank. To meet the short term obligations of the bank on these account, the bank should keep maintain adequate cash balance. On other hand, if the banks keep high balance to meet its current obligation than its requirement, the fund will be idle which ultimately reduces the profit.

$$\text{Saving Deposit to Total Deposit Ratio} = \frac{\text{Saving Deposit}}{\text{Total Deposit}} \times 100\%$$

Saving Deposit To Total Deposit Ratio
Table 30

(In Lakh Rs.)

Banks	NIBL			NSBIBL		
Years	Saving Deposit	Total Deposit	Ratio (%)	Saving Deposit	Total Deposit	Ratio (%)
2059/2060	24,340.55	79,227.66	30.72	16,330.28	65,228.17	25.03
2060/2061	48,861.01	1,15,246.79	42.40	20,430.22	71,983.27	28.38
2061/2062	67,035.12	1,42,545.74	47.02	24,588.01	86,547.74	28.40
2062/2063	80,819.81	1,89,273.06	42.70	28,326.39	1,10,020.41	25.74
2063/2064	1,07,423.32	2,44,888.56	43.86	32,746.90	1,14,452.86	28.61
Mean	41.34			27.23		
S.D.	6.21			1.71		
C.V.	15.02			6.27		

From the above table, we can analyze the pattern of saving deposits to total deposits ratio of NIBL & NSBIBL. The ratio of NIBL is highest in F.Y. 2061/2062 with 47.02% and it is

lowest in F.Y. 2059/2060 with 30.72%. Likewise, for NSBIBL the ratio is highest in F.Y. 2063/2064 with 28.61%. Both banks' ratios are in fluctuating trend over the study period.

Looking at the mean of the ratio, it is found that NIBL has collected high portion of its fund on saving deposit than that of NSBIBL. Since saving deposit is second highest interest bearing deposits and restricted to withdraw freely to some extent. NIBL should be little more conscious in maintaining liquidity position and investment of the fund as it has more saving deposits with respect to total deposits.

4.4 Income And Expenditure Aanalysis

This sort of ratio analyzes the income & expenditure pattern of the banks. This ratio basically highlights the dominant sources of income & expenditure of the firm. Under this title mainly two types of analysis are carried out. They are as follows :

4.4.1 Income Analysis

This group of ratio includes such ratio which measures the income pattern of the firm. A firm earns the income from different functions. This ratio shows the proportion of the income under different headings in respect to total earnings. To compute this ratio, the sources of income under different headings are divided by the total income.

For the purpose of earnings ratio computation, the earnings are split under these headings.

4.4.1.1 Interest Income

Interest is the main & major source of income for the banks. Banks generate income by lending the collected deposit from different account to the needy person, business enterprises and other sectors through different schemes. Banks lend fund as loans & advances, overdrafts, investment on government securities, inter banks loans, investment in debentures and money & short calls. This ratio of banks reflects the operational efficiency. So, higher the ratio indicates higher efficiency and vice-versa.

$$\text{Interest Income to Total Income Ratio} = \frac{\text{Interest Income}}{\text{Total Income}} \times 100\%$$

4.4.1.2 Commission And Discount

Bank receives commission and discount of different sources. Commission & discount are very important sources of income of banks. A bank provides agency service, collect remittances, provide guarantee, letter of credit, purchase and discount bills of exchanges

etc. These kinds of services rendered by banks generate commission & discount earnings for the banks.

$$\text{Commission and Discount Ratio} = \frac{\text{Commission and Discount}}{\text{Total Income}} \times 100\%$$

4.4.1.3 Foreign Exchange Income

The banks assist to promoting foreign trade by rendering the service of foreign currency exchange. Bank exchanges the foreign currency through which the banks receive earnings.

For this purpose the banks should take permission from NRB to render this service. This income includes the income from selling the foreign currency and also the income form revaluation of the currency in international market. This is calculated as follows :

$$\text{Foreign Exchange Income ratio} = \frac{\text{Foreign Exchange Income}}{\text{Total Income}} \times 100\%$$

4.4.1.4 Dividend Received

Banks accepts the deposits from the public in different account. This collected funds need to be invested for the earnings. Banks generally invest such collected fund in shares purchasing through which the bank receives dividend is put under dividend earnings.

$$\text{Dividend Received Ratio} = \frac{\text{Dividend Received}}{\text{Total Income}} \times 100\%$$

4.4.1.5 Other Income

Incomes not included in above categories are put under this heading. This income includes the income from sales of collaterals, revaluations, rent, etc.

$$\text{Other Income} = \frac{\text{Other Income}}{\text{Total Income}} \times 100\%$$

Income Ratios Of NIBL
Table 31

(In Lakh Rs.)

Banks	NIBL				
Years	Interest Income	Commission & Discount	Foreign Exchange Income	Dividend	Other Income
2059/2060	4,595.10	408.12	508.34	0	262.88
Ratio	79.57	7.06	8.80	0	4.55
2060/2061	7,314.03	557.47	879.80	0	368.16
Ratio	80.20	6.11	9.64	0	4.03
2061/2062	8,867.99	935.51	1,025.18	1.92	565.67
Ratio	77.81	8.20	8.99	0.02	4.96
2062/2063	11,727.42	1,159.42	1,257.47	2.41	359.02
Ratio	80.84	7.99	8.66	0.02	2.47
2063/2064	15,849.87	1,638.99	1,353.55	2.13	473.19
Ratio	82.04	8.48	7.01	0.01	2.44
Mean	80.09	7.57	8.62	0.01	3.69
S.D	1.57	0.97	0.97	0.01	1.17
C.V	1.96	12.81	11.25	100.00	31.70

Income Ratios Of NSBIBL
Table 32

(In Lakh Rs.)

Banks	NSBIBL				
Years	Interest Income	Commission & Discount	Foreign Exchange Income	Dividend	Other Income
2059/2060	4,697.40	299.62	185.10	0	54.94
Ratio	89.69	5.72	3.53	0	1.04
2060/2061	4,935.98	306.67	306.16	0	82.20
Ratio	87.65	5.44	5.43	0	1.45
2061/2062	5,753.72	425.68	323.57	0	112.75
Ratio	86.97	6.43	4.89	0	1.70
2062/2063	7,087.19	407.53	430.60	0.99	71.37
Ratio	88.61	5.09	5.38	0.01	0.89
2063/2064	8,311.17	525.92	494.64	1.85	126.01
Ratio	87.85	5.55	5.22	0.02	1.33
Mean	88.15	5.64	4.89	0.01	1.28
S.D	1.03	0.49	0.78	0.05	0.32
C.V	1.16	8.68	15.95	500.00	25.00

The above table 31 & table 32 present the summarized statistics of all income ratios of NIBL & NSBIBL respectively over the study period. As per the table, the income ratios of different income are discussed as below.

The interest income ratio of NIBL ranged from 82.04% in F.Y. 2063/2064 and it is lowest in F.Y. 2061/2062 with 77.81%. The mean of the ratio is 80.09%. For NSBIBL, the interest income ratio ranged from 89.69% in F.Y. 2059/2060 and it is lowest in F.Y. 2061/2062 with 86.97%. The mean of the ratio is 88.15%. These figures conclude that NSBIBL is generating more of its earnings from interest earnings than that of NIBL. Looking at the C.V. of the ratio, NIBL & NSBIBL is 1.96% & 1.16% respectively, reflects that NSBIBL is quite consistent in regard to its interest income than NIBL. The ratio of commission & discount to total assets of NIBL accounted highest is 8.48% in F.Y. 2063/2064 and accounted lowest in F.Y. 2060/2061 with 6.11%. The average of commission & discount earning to total earning for NIBL appeared 7.57% and for NSBIBL this ratio ranged from 6.43% in F.Y. 2061/2062 to 5.09% in F.Y. 2062/2063. The average of the ratio appeared 8.68%. The lower C.V. of NSBIBL shows that the income of the bank in this heading in respect to total earnings is very consistent.

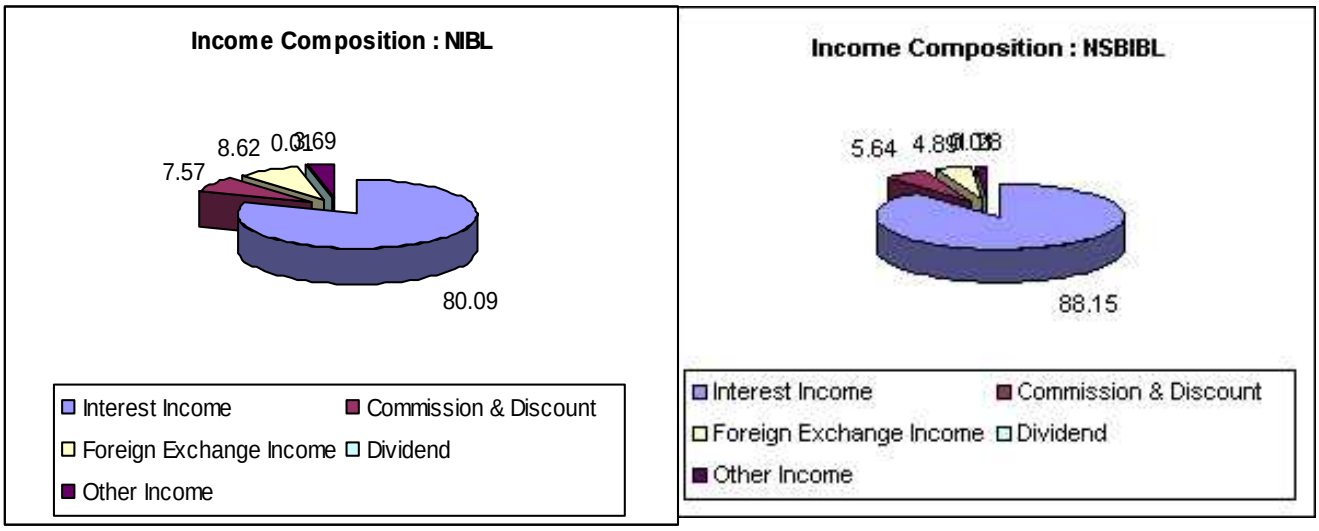
The foreign exchange income to total income of NIBL ranged from 9.64% in F.Y. 2060/2061 to 7.01% in F.Y. 2063/2064. The average of the ratio accounted for 8.62% and the coefficient of variation of NIBL is 11.25%. The ratio of foreign exchange to total income of NSBIBL is highest in F.Y. 2062/2063 at 5.38% and lowest in F.Y. 2059/2060 at 3.53%. The average of the ratio is 4.89% with 15.95% C.V. Looking at the table, NSBIBL is much consistent than NIBL.

Both the banks have earned not much more from dividend. In F.Y. 2061/2062 & 2062/2063, the ratio is equal to 0.02% and it is lowest at 0% in F.Y. 2059/2060 & 2060/2061. The dividend received ratio of NSBIBL is highest at 0.02% in F.Y. 2063/2064 & is lowest at 0% from F.Y. 2059/2060 to 2061/2062. But both the banks have equal average ratio of 0.01% but the C.V. of NSBIBL is greater than that of NIBL.

Regarding other earnings, NIBL has earned highest on this heading at 4.96% in F.Y. 2061/2062 and this ratio appeared lowest in F.Y. 2063/2064 at 2.44%. The average of the ratio over the study period is 3.69%. As for NSBIBL, the ratio appeared highest in F.Y. 2061/2062 with 1.70% and appeared lowest in F.Y. 2062/2063 with 0.89%. The average of the ratio of NSBIBL is 1.28% with 25.00% C.V.

The comparative presentation of income pattern of two banks can be viewed in form of pie chart below:

Comparative Presentation Of Income Pattern
Fig. 2



4.4.2 Expenditure Analysis

Of course in the process of operation, a firm has to incurred several kind of cost termed as expenses. In this context, a bank has to occur different types of expenses for the smooth run of operation. This type of expenses varies as per nature and types of business of the firm. Our study is on two joint venture banks whose major business nature is to collect deposits and lend the fund collected to the needy parties, in short service rendering nature of business. As per the types of expenses the total expenses are classified into the major four different groups which are as follows and the ratios of these title expenses are calculated thoroughly.

4.4.2.1 Interest Expenses

Interest expenses are the major expenses of the banking institutions. These expenses generally occupy the highest proportion in the total expenses. The bank has to pay interest on different deposits accounts, inter bank transaction, loan and borrowings. The ratio of interest expenses is calculated as follows :

$$\text{Interest Expenses To Total Expenses Ratio} = \frac{\text{Interest Expenses}}{\text{Total Expenses}} \times 100\%$$

4.4.2.2 Staff Expenses

Staff expenses are also the major source of expenses for the bank. Staff expenses occupy the third highest proportion in the expenses pattern. Human resources of any firm are the key factor for the success of the firm and satisfied and self-motivated employee are the ornaments for the firm. Therefore, to retain satisfied employee in the firm, the firm has to pay remunerations and other facilities to employee of the firm. These expenses involve all those expenses which incurred upon the staff of the firm such as salaries, allowances, bonus, quarter facilities and other facilities. The ratio of staff expenses is calculated as follows :

$$\text{Staff Expense To Total Expenses Ratio} = \frac{\text{Interest Expenses}}{\text{Total Expenses}} \times 100\%$$

4.4.2.3 General Expenses

General expenses include those expenses which are not included in the two expenses above. These expenses involve operating expenses, miscellaneous expenses and other expenses. For the smooth running of day to day operation of a firm, it has to incur different expenses such as stationary, power, water, telephone, etc. The house rent, building, maintenance and repairs, bank commissions, board of directors meeting allowances, refreshment cost, parties expenses, audit fee, etc. This ratio is calculated as follows:

$$\text{General Expenses To Total Expenses Ratio} = \frac{\text{General Expenses}}{\text{Total Expenses}} \times 100\%$$

4.4.2.4 Bonus Facility

Bonus is the intensive to the employee to the company on successful and profitably working of the bank over a certain period of time. This is the way of motivating the employee and participation them in the success of their work. Bonuses are paid from the net profit of the firm. The ratio is calculated as follows:

$$\text{Bonus Facility Ratio} = \frac{\text{General Expenses}}{\text{Total Expenses}} \times 100\%$$

Expenses Ratios Of NIBL
Table *33*

(In Lakh Rs.)

Banks	NIBL			
Years	Interest Expenses	Staff Expenses	General Expenses	Bonus Facility
2059/2060	1,892.14	612.80	420.96	189.06
Ratio	60.74	19.67	13.51	6.07
2060/2061	3,262.02	897.49	576.39	257.19
Ratio	65.33	17.97	11.54	5.15
2061/2062	3,545.49	970.04	665.74	370.75
Ratio	63.86	17.47	11.99	6.68
2062/2063	4,909.47	1,206.64	677.32	504.91
Ratio	67.27	16.53	9.28	6.92
2063/2064	6,855.30	1,453.71	823.04	723.38
Ratio	69.56	14.75	8.35	7.35
Mean	65.35	17.28	10.94	6.43
S.D	3.35	1.81	2.10	0.84
C.V	5.12	10.47	19.19	13.06

Expenses Ratios Of NSBIBL
Table *34*

(In Lakh Rs.)

Banks	NSBIBL			
Years	Interest Expenses	Staff Expenses	General Expenses	Bonus Facility
2059/2060	2,918.19	337.31	245.91	76.73
Ratio	81.55	9.42	6.87	2.14
2060/2061	2,559.19	325.10	255.79	121.70
Ratio	78.45	9.96	7.84	3.73
2061/2062	2,584.30	375.82	302.31	139.10
Ratio	75.97	11.04	8.88	4.08
2062/2063	3,347.70	505.39	308.32	199.76
Ratio	76.76	11.58	7.06	4.58
2063/2064	4,122.62	532.32	374.34	344.59
Ratio	76.71	9.90	6.96	6.41
Mean	77.88	10.38	7.52	4.18
S.D	2.24	0.89	0.85	1.54
C.V	2.88	8.57	11.30	36.85

The above table 32 & table 33 show the summarized statistics of all expenses ratios of NIBL & NSBIBL respectively over the study period.

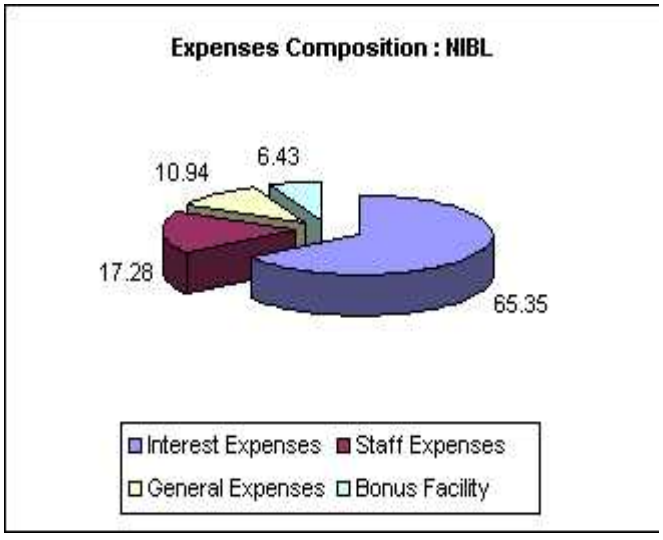
The interest expense for NIBL is highest in F.Y. 2063/2064 with 69.56% and it is lowest in F.Y. 2059/2060 with 60.74%. For NSBIBL the ratio ranged from 81.55% in F.Y. 2059/2060 to 75.97% in F.Y. 2061/2062. The average of the ratio accounted for both of the bank, NIBL & NSBIBL, accounted for 65.35% & 77.88% respectively. The mean ratio of NSBIBL is higher than NIBL which implies that NSBIBL incurs high expenses in interest paying than that of NIBL does. The C.V. of NIBL is higher than that of NSBIBL which indicates that NSBIBL's interest expenses ratio exposes is consistent than that of NIBL.

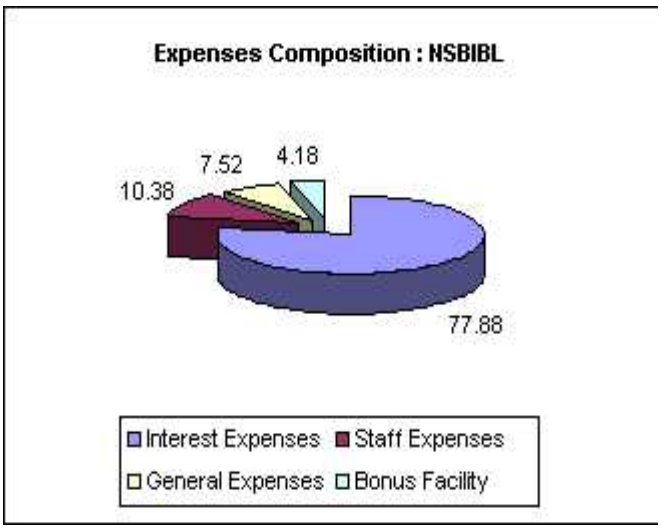
The ratio of staff expenses to total expenses of NIBL ranged from 19.67% in F.Y. 2059/2060 to 14.75% in F.Y. 2063/2064. For NSBIBL, this ratio accounted the highest at 11.58% in F.Y. 2062/2063 to 9.42% in F.Y. 2059/2060. Looking at the trend of the ratio, NIBL is in decreasing trend but the ratio of NSBIBL is in fluctuating trend year to year. The mean ratio of NIBL & NSBIBL is 17.28% and 10.38% respectively. The higher ratio of NIBL says that NIBL expense higher proportion in staff expenses than NSBIBL.

General expenses to total expenses mean ratio of NIBL and NSBIBL are 10.94% and 7.52% respectively. Both of the banks ratios are in fluctuating trend. The mean ratio & C.V. of NIBL is 10.94% & 19.19% respectively which is greater than that of NSBIBL with 7.52% & 11.30%.Lastly, the ratio of bonus facilities to total expenses for NIBL ranged from 7.34% in F.Y. 2063/2064 to 5.15% in F.Y. 2060/2061. Likewise, NSBIBL paid highest bonus to its staff at the rate of 6.41% in F.Y. 2063/2064 and lowest is 2.14% in F.Y. 2059/2060. The mean ratios of both banks are 6.43% & 4.18% respectively. It is found that NIBL has been paid higher rate of bonus facility with respect to total expenses than NSBIBL. The C.V. of NSBIBL is higher.

The comparative presentation of expenses pattern of two banks are presented in pie chart below.

Comparative Presentation Of Expenses Pattern
Fig. 3





4.5 Cash Flow Analysis

Cash flow is a statement setting out the flow of cash under distinct heads of sources of funds and their utilization to deterring the requirements of cash during the given period and to prepare for its adequate provision. It shows the inflows and outflows of cash and cash equivalents during the year. In this thesis work the cash flow of the banks are analyzed to check the cash availability for the banks through cash flow statements.

Annual Cash Flow
Table *35*

(In Lakh Rs.)

Banks	NIBL			NSBIBL		
Years	Annual Cash Flow	Annual Ratio (%)	Index	Annual Cash Flow	Annual Ratio (%)	Index
2059/2060	2,009.71	9.06	0.45	2,696.59	24.37	1.22
2060/2061	3,153.83	14.22	0.71	1,612.22	14.57	0.73
2061/2062	3,742.66	16.88	0.84	1,437.50	12.99	0.65
2062/2063	5,625.61	25.37	1.27	2,441.88	22.07	1.10
2063/2064	7,639.84	34.46	1.72	2,875.31	25.99	1.30
Total	22,171.65			11,063.50		
Mean	44,34.33			2,212.70		
S.D.	2,218.74			649.47		
C.V.	50.04			29.35		

The above table presents the annual cash flow of two sample banks for the period of 5 years from F.Y. 2059/2060 to F.Y.2063/2064. The C.V. of annual cash flow of two banks is 50.04% and 29.35% respectively. It is seen that the annual cash flow of NIBL is highly fluctuating than NSBIBL. The average cash flow of NIBL & NSBIBL is Rs. 4434.33 & Rs. 2212.70 respectively. The average cash flow of NIBL is almost twice of NSBIBL.

The ratio of cash flow of banks is obtained by dividing the annual cash flow of the bank over the study period. It indicated the percentages of annual cash flow of the banks are the percentage of total cash flow. The annual cash flow ratio of NIBL is 34.46%, highest one in F.Y. 2063/2064 and 9.06% in F.Y. 2059/2060, the lowest one. Similarly, the annual cash flow ratio of NSBIBL is highest in F.Y. 2063/2064 with 25.99% and lowest in F.Y. 2061/2062 with 12.99%.

The index of the annual cash flow of the banks represents the relative ness change of cash flow on yearly basis. Looking at the index table column it is found that the annual cash flow of NIBL is lowest in F.Y. 2059/2060 with 0.45 and is highest in F.Y. 2063/2064 is 1.72, which is in increasing trend. The lowest of the NSBIBL is 0.65 in F.Y. 2061/2062, the

figure of the index is highest in F.Y. 2063/2064 with 1.30. In conclusion it can be said that the index of annual cash flow of both of the banks are highly fluctuated over the study period.

The graph of the cash flow of NIBL & NSBIBL is presented in the figure below. The graph of the banks shows that the annual cash flow of the banks is fluctuating over the study period. The annual cash flow of the NIBL higher than that of NSBIBL.

4.6 Trend Analysis

A line fit to set a set of data points to estimate the relationship between two variables is called regression line and the lines are expressed algebraically by means of equation called regression equations. The equation of regression line where the dependent variable **Y** is determined by the independent variables **X** is

$$Y = a + bX \quad \ldots\ldots(1)$$

Where,

a = y-intercept and b = Slope of the regression line
X = year

In order to develop the trend line for the variables, first we need to find out the value of co-efficient i.e. **a** and **b**. The value of a and b are calculated by solving the following normal equations,

According to the principle of least squares, two normal equations for estimating two numerical constants **a** and **b** are given by,

$$\sum Y = na + b\sum X \quad \ldots\ldots(2)$$

$$\sum XY = a\sum X + b\sum X^2 \quad \ldots\ldots(3)$$

Where,

n = No. of year

For the sake of simplicity, the deviation of the independent variable (or, time) are taken from the middle of the time period, so that $\sum X = 0$. Then the above two equations change into,

$$\sum Y = na \qquad \ldots a = \frac{\phi Y}{n} \qquad \text{and,}$$

$$\sum XY = b\sum X^2 \qquad \ldots b = \frac{\phi XY}{\phi X^2}$$

The Regression Equations

Total Deposits = a + bx (Year 2061/2062)

Table *36*

(In Lakh Rs.)

Least Square Linear Trend Of Total Deposit		
Banks	**Co-efficient**	
	Constant (a)	**Variable (b)**
NIBL	1,54,236.36	40,534.81
NSBIBL	89,646.49	13,648.65

As per the table presented above, the average of the total deposits of NIBL depicted by co-efficient is Rs. 154,236.36 lakhs. The amount of total deposits of NIBL is increasing at the rate of Rs. 40,534.81 lakhs of rupee per year.

The average of total deposits for NSBIBL is Rs. 89,646.49 lakhs and the deposit of the bank increases year to year by Rs. 13,648.65 lakhs.

The Regression Equations

Loan And Advances = a + b x year (year 2061/2062)

Table *37*

Least Square Linear Trend Of Loan & Advance		
Banks	**Co-efficient**	
	Constant (a)	**Variable (b)**
NIBL	1,06,181.91	28,674.66
NSBIBL	65,826.89	12,466.54

The above table presents that the average Loan & Advances amount of the NIBL is Rs. 106,181.91 lakhs and this amount is increasing year to year by Rs. 28,674.66.

For NSBIBL the value of **a** and **b** are 65,826.89 and 12,466.54 respectively. These co-efficient implies that the average loan & advances of the bank is Rs. 65,826.89 lakhs and it is also in increasing trend which is increasing at the rate of Rs. 12,466.54 lakhs per year.

The Regression Equations

Net Worth = a + b x year (year 2061/2062)

Table 38

Least Square Linear Trend Of Net Worth		
Banks	**Co-efficient**	
	Constant (a)	**Variable (b)**
NIBL	11,682.65	3,165.56
NSBIBL	8,062.33	1,542.61

According to the table presented above, the value of Net Worth of NIBL would mot go below Rs. 11,682.65 lakhs and this is in increasing trend which increase at the rate of Rs. 3,165.56 lakhs per year.

For NSBIBL the amount of Net Worth be an average of Rs. 8,062.33 and this amount would continue to increase per year at the rate of Rs. 1,542.61 lakhs.

The Regression Equations

Total Assets = a + b x year (year 2061/2062)

Table 39

Least Square Linear Trend Of Total Assets		
Banks	**Co-efficient**	
	Constant (a)	**Variable (b)**
NIBL	1,74,929.58	45,227.83
NSBIBL	1,06,578.35	17,265.28

As per the table the value of total assets of NIBL is an average of Rs. 1,74,929.58 lakhs and this amount of total assets of the bank would increase year to year by Rs. 45,227.83 lakhs.

For NSBIBL, the amount of total asset is Rs. 1,06,578.35 lakhs and this will increase at the rate of Rs. 17,265.28 lakhs. The rate of increasing in total assets and average of total assets for NSBIBL is less than that of NIBL.

The Regression Equations

Net Profit = a + b x year (year 2061/2062)

Table 40

Least Square Linear Trend Of Net Profit		
Banks	**Co-efficient**	
	Constant (a)	**Variable (b)**
NIBL	2,707.14	967.03
NSBIBL	1,077.71	468.52

The co-efficient a and b of NIBL are 2,707.14 and 697.03 respectively. These co-efficient reveals that the amount of net profit of NIBL is in average Rs. 2,707.14 lakhs and this value would continue to increase by Rs. 967.03 lakhs per year. Similarly the constant regression co-efficient of NIBL are 1,077.71 and 468.52. These values also reflect that the Net Profit of NSBIBL is in average Rs. 1,077.71 and this value increases every year by Rs. Rs. 468.52 lakhs.

The Regression Equations

EPS = a + b x year (year 2061/2062)

Table 41

Least Square Linear Trend Of EPS		
Banks	**Co-efficient**	
	Constant (a)	**Variable (b)**
NIBL	50.54	5.37
NSBIBL	19.33	5.98

According to table, the co-efficient **a** and **b** of NIBL are 50.54 and 5.37 respectively. The amount of EPS is Rs. 50.54 per share and this amount will increase in a rate of Rs. 5.37 per year. The slope of the trend line is upward sloping.

But for NSBIBL, the amount of NSBIBL is increasing in a rate of Rs. 5.98 per year. The average EPS of NSBIBL is Rs. 19.33 per share.

The Regression Equations

MPS = a + b x year (year 2061/2062)

Table 42

Least Square Linear Trend Of MPS		
Banks	**Co-efficient**	
	Constant (a)	**Variable (b)**
NIBL	1,104.80	218.80
NSBIBL	541.00	214.70

As per the table, the co-efficient of regression equation of NIBL are 1,104.80 and 218.80 respectively. The average MPS of NIBL is Rs. 1,104.80 and this value would increase year to year by Rs. 218.80 as the co-efficient b is positive. The average MPS of NSBIBL is 541.00. For NSBIBL the value of market price per share would increase year to year as a rate of 214.70. The increasing rate of MPS of NIBL is higher than that of NSBIBL.

The Regression Equations

Investment = a + b x year (year 2061/2062)

Table 43

Least Square Linear Trend Of Investment		
Banks	**Co-efficient**	
	Constant (a)	**Variable (b)**
NIBL	43,220.92	11,341.26
NSBIBL	24,281.81	4,755.81

The investment of banks for the year and coming years can be estimated by regression model presented in the table. The co-efficient of investment of NIBL is 43,220.92 and 11,341.26. These values indicate that the average value of investment is Rs. 43,220.92 lakhs and this amount would continue to increase by Rs. 11,341.26 if same condition prevails. For NSBIBL the average of investment is Rs. 24,281.81 and the amount of investment increases by Rs. 4,755.81 per year.

4.7 Test Of Hypothesis

A quantitative statement about the population parameter is called a hypothesis and a statistical hypothesis made about the population parameter to testing its validity for the purpose of the possible acceptance is called null hypothesis and its complementary hypothesis is alternative hypothesis. In order to test the significance for difference between two independent mean, student test generally known as t-test is used. Thus, in this thesis work, t-test is used. Thus, in this thesis work, T-test has been conducted to test whether the mean has been conducted test whether the mean values of various ratios of NIBL and NSBIBL are significantly different or same.

4.7.1 Profitability Ratios

Null Hypothesis $H_0 : \mu_1 = \mu_2$ i.e. there is no significant difference in mean profitability ratios of two sampled banks

Alternative Hypothesis $H_1 : \mu_1 \neq \mu_2$ i.e. there is significant difference in mean profitability ratios of two sampled banks.

Table 44
Summarized T-Test Result Of Profitability Ratios

S.No.	Ratios	Cal. T-Value	Tab. T-Value	State	Decision (Accepted)	Result
1	Interest Earned To Total Assets	2.83	2.31	Cal.T>Tab.T	H_1	Significant
2	Net Profit To Total Deposit	1.72	2.31	Cal.T<Tab.T	H_0	Insignificant
3	Net Profit To Total Assets	2.08	2.31	Cal.T<Tab.T	H_0	Insignificant
4	Net Profit To Net Worth	3.34	2.31	Cal.T>Tab.T	H_1	Significant
5	Return On Risk Assets	2.61	2.31	Cal.T>Tab.T	H_1	Significant

Level of significance = 5% (Two Tailed)
Degree Of Freedom = $n_1 + n_2 - 2 = 5 + 5 - 2 = 8$
Tabulated t value $t_{(0.05)}$ at 8 *d.f.* = 2.306 = 2.31

From the above table it is clear that there is no significant difference in net profit to total deposit & net profit to total assets between two sample banks. But in case of interest earned to total assets, net profit to net worth and return on risk assets, alternative hypothesis is accepted. This indicates that there is significance difference in interest earned to total assets, net profit to net worth and return on risk assets between NIBL & NSBIBL.

4.7.2 Valuation Ratios

Null Hypothesis $H_0 : \mu_1 = \mu_2$ i.e. there is no significant difference in mean valuation ratios of two banks.

Alternative Hypothesis $H_1 : \mu_1 \neq \mu_2$ i.e. there is significant difference in mean valuation ratios of two banks

Table 45
Summarized T-Test Result Of Valuation Ratios

S.No.	Ratios	Cal. T-Value	Tab. T-Value	State	Decision (Accepted)	Result
1	Price Earning Ratio	1.78	2.31	Cal.T<Tab.T	H_0	Insignificant
2	Market To Book Value Ratio	2.63	2.31	Cal.T>Tab.T	H_1	Significant
3	Dividend Yield Ratio	0.27	2.31	Cal.T<Tab.T	H_0	Insignificant

The calculated t value of P/E Ratio and Dividend Yield Ratio of two sample banks over the five years period are lesser than the tabulated t value at 5% significance level for 8 d.f. So, null hypothesis is accepted for both of the cases, this indicates that there is no significance difference between P/E Ratio and Dividend Yield Ratio of two banks but t value for market to book value ratio is greater than tabulated value & indicates that there is significance difference between Market To Book Value Ratio.

4.7.3 Leverage / Capital Structure Ratios

Null Hypothesis $H_0 : \mu_1 = \mu_2$ i.e. there is no significant difference in mean leverage ratios of two banks

Alternative Hypothesis $H_1 : \mu_1 \neq \mu_2$ i.e. there is significant difference in mean valuation ratios of two banks

Table 46
Summarized T-Test Result Of Leverage / Capital Structure Ratios

S.No.	Ratios	Cal. T-Value	Tab. T-Value	State	Decision (Accepted)	Result
1	Total Debt Ratio	2.07	2.31	Cal.T<Tab.T	H_0	Insignificant
2	Leverage Factor	2.07	2.31	Cal.T<Tab.T	H_0	Insignificant
3	Capital Adequacy Ratio	2.67	2.31	Cal.T>Tab.T	H_1	Significant
4	Interest Coverage Ratio	4.60	2.31	Cal.T>Tab.T	H_1	Significant

As per the above table it is seen that the ratio of total debt & leverage factor is concerned the calculated t-value is less than the tabulated t-value accepting null hypothesis which indicates that the mean ratio of two sampled banks are statistically no significant different. But for capital adequacy ratio & interest coverage ratio, the calculated t-value is higher than tabulated t-value. Therefore alternative hypothesis is accepted rejecting null hypothesis which shows that there is significant difference in mean interest coverage ratio of NIBL & NSBIBL.

4.7.4 Activity Ratios

Null Hypothesis $H_0 : \mu_1 = \mu_2$ i.e. there is no significant difference in mean activity ratios of two banks

Alternative Hypothesis $H_1 : \mu_1 \neq \mu_2$ i.e. there is significant difference in mean activity ratios of two banks

Table 47
Summarized T- Test result Of Activity Ratios

S.No.	Ratios	Cal. T-Value	Tab. T-Value	State	Decision (Accepted)	Result
1	Loan & Advance To Total Deposit	1.24	2.31	Cal.T<Tab.T	H_0	Insignificant
2	Loan & Advance To Fixed Deposit	5.75	2.31	Cal.T>Tab.T	H_1	Significant
3	Loan & Advance To Saving Deposit	5.00	2.31	Cal.T>Tab.T	H_1	Significant
4	Performing Assets To Total Assets	0.31	2.31	Cal.T<Tab.T	H_0	Insignificant
5	Performing Assets To Total Debt	0.21	2.31	Cal.T<Tab.T	H_0	Insignificant
6	Non-Performing Assets To Total Assets	0.14	2.31	Cal.T<Tab.T	H_0	Insignificant
7	Investment To Total Deposits	0.37	2.31	Cal.T<Tab.T	H_0	Insignificant

4.7.5 Cost Effectiveness Ratios

Null Hypothesis $H_0 : \mu_1 = \mu_2$ i.e. there is no significant difference in mean cost effectiveness ratios of two banks

Alternative Hypothesis $H_1 : \mu_1 \neq \mu_2$ i.e. there is significant difference in mean cost effectiveness ratios of two banks

Table 48
Summarized T-Test Result Of Cost Effectiveness Ratios

S.No.	Ratios	Cal. T-Value	Tab. T-Value	State	Decision (Accepted)	Result
1	Personnel Expenses To Total Income Ratio	2.25	2.31	Cal.T<Tab.T	H_0	Insignificant
2	Other General Expenses To Total Operating Expenses	2.01	2.31	Cal.T<Tab.T	H_0	Insignificant

Cost efficiency ratio involves two ratios namely personnel expenses to total income ratio and other general expenses to total operating expenses. In both of the ratios, calculated t-value of the sampled banks is lesser than the tabulated t-value. Therefore, null hypothesis is accepted explaining there is no significant difference between the mean cost efficiency ratios of the sampled banks.

4.7.6 Liquidity Ratios

Null Hypothesis $H_0 : \mu_1 = \mu_2$ i.e. there is no significant difference in mean liquidity ratios of two banks

Alternative Hypothesis $H_1 : \mu_1 \neq \mu_2$ i.e. there is significant difference in mean liquidity ratios of two banks

Table 49
Summarized T-Test Result Of Liquidity Ratios

S.No.	Ratios	Cal. T-Value	Tab. T-Value	State	Decision (Accepted)	Result
1	Current Ratios	0.16	2.31	Cal.T<Tab.T	H_0	Insignificant
2	Cash & Bank Balance To Total Deposits	0.37	2.31	Cal.T<Tab.T	H_0	Insignificant
3	Loan & Advance To Current Assets	0.42	2.31	Cal.T<Tab.T	H_0	Insignificant
4	Investment In Govt. Securities To Current Assets	5.01	2.31	Cal.T>Tab.T	H_1	Significant
5	Cash & Bank To Current Assets	0.32	2.31	Cal.T<Tab.T	H_0	Insignificant
6	Fixed Deposits To Total Deposits	14.47	2.31	Cal.T>Tab.T	H_1	Significant
7	Saving Deposits To Total Deposits	4.92	2.31	Cal.T>Tab.T	H_1	Significant

All the liquidity ratios calculated t-value of the sampled banks is less than the tabulated t-value at 5% level of significance except investment in government securities to current assets, fixed deposits to total deposit & saving deposits to total deposits. Therefore, null hypothesis is accepted for all cases except in the case of investment in government securities to current assets, fixed deposits to total deposit and saving deposits to total deposits. This indicates that there is no significant difference between mean stipulated ratios of the samples banks.

4.8 Major Findings

From the above presentation and analysis of relevant data of two sampled banks for five years commencing from FY. 2059/2060 to FY. 2063/2064. Following major findings are extracted.

Profitability Ratio

- The mean interest earned to total assets ratio of NIBL and NSBIBL are 3.16% and 2.83% respectively. But the C.V. of NSBIBL is higher than that of NIBL which

reveals that NIBL earned better earning by employing the total assets available to the firm with consistently than NSBIBL.

- The ratio of net profit to total deposit of two banks NIBL & NSBIBL over the study period with respect to total deposits of the bank are 1.67% a7 1.11% respectively. The C.V. of the ratio of two banks is 17.96% & 58.56%. Here the point to be noted is that, the average net profit with respect to total deposit of NIBL is better than that of NSBIBL.

- Next ratio is net profit to total assets of the bank. The ratio of NIBL is higher than that of NSBIBL i.e. 1.47% > 0.93%. This also indicates that the profit of NIBL is better than that of NSBIBL over the study period. However, the higher co-efficient of variation of NSBIBL reveals that the profit of NSBIBL is not rather consistent, might be problem for the bank. In the same way, return on shareholders' equity of NIBL is also little higher than that of NSBIBL. This indicates that the shareholders of NIBL are also getting more return on their fund employed in the bank and furthermore, the return on the bank is quite consistent than NSBIBL, which helps in develop a confidence in shareholders about their fund is efficiently being used.

- As widely accepted proverb "Higher The Risk Higher The Return". The bank has also invested their collected fund in risky assets for making profit. In this regard, the return in risky assets of NIBL is 2.42% and for NSBIBL is 1.49%. This also indicates that NIBL has been earning return on risky assets than NSBIBL.

Growth Ratio

- The growth ratio of Operating Profit, Net Profit, EPS, DPS, BVPS & MPS of both banks, NIBL & NSBIBL are positive. Here the point to be noted that the increasing rate of three financial indicators of NIBL is less than that of NSBIBL. In short, all financial indicators which are pooled for calculating growth ratio of NSBIBL are better than that of NIBL. This means NSBIBL is performing better than NIBL from this point of view.

Value Ratio

- The P/E ratio of NSBIBL is higher than that of NIBL (26.47 > 21.48) which indicates NSBIBL has more charm among the shareholders than NIBL. This ratio reflect that the investors' response about the performance of the firm and the C.V. of NSBIBL reflects that the ratio of the bank is rather consistent than that of NIBL. What it tries to say that the result of one or two boost in the price of the company but the result of positive perception of shareholders about the performance of the bank.
- Market to Book Value Ratio of NIBL & NSBIBL is 1.00 & 3.37 times respectively. Higher the market to book value ratio of any firm is as indication of satisfactory level of performance. In this regard the market to book value of NSBIBL is higher than that of NIBL and the C.V. of NIBL is also low.

- Dividend yield of NIBL is higher than that of NSBIBL that are 50.52% & 43.61% respectively. Along with the average, the C.V. of NIBL is low which implies that the dividend yield ratio is consistent for NIBL.

Activity Ratio

- Loan & advance to total deposits of NIBL & NSBIBL is 68.77% & 72.75% respectively. This indicates that the NSBIBL is utilizing the total collected fund more as loan and advance than NIBL. The ratio of loan and advance with respect to fixed deposit of NIBL is higher than that of NSBIBL. This means the most proportion of total loan and advances of NIBL are generated from fixed deposit, a high interest bearing deposit, more than that is of NSBIBL.

- Similarly, the loan and advances to saving deposits of saving deposits of NIBL & NSBIBL are 170.63% & 267.25% and the C.V. of the banks are 22.06% & 5.81% respectively. This implies that NSBIBL's loan and advances is contributed by the saving deposits.

- The ratio of performing assets to total assets of NIBL is higher than that of NSBIBL i.e. (87.21%>84.74%) and the C.V. of the ratio of banks are 19.10% & 7.02% respectively. This indicates that NIBL has been able to use its total assets for profit making purpose in performing assets effectively than NSBIBL.

- Performing assets to total debt ratio of NIBL is higher than that of NSBIBL indicating high proportion of performance assets of NIBL is being financed from debt rather than shareholders equity unlike NSBIBL. Unlike performing assets, NSBIBL has been investing its total assets in non-performing assets which ultimately reduces the profitability of the firm by blockage of fund in such assets.

- NIBL has invested its total fund in shares and other sectors for generating earning than NSBIBL. But the ratios of investment of both banks are highly fluctuated.

Cost Effectiveness Measure

- The personnel expenses to total income of NIBL and NSBIBL are 10.61% and 7.47% respectively. NIBL is spending higher proportion of personnel expenses than NSBIBL. Higher cost for any firm is a negative aspect. Therefore, in order to increase the profit by reducing the cost, NIBL should think on it.
- Other general expenses to total operating assets of NIBL and NSBIBL are 6.62% and 5.258% respectively. This indicates that NIBL has incurred higher proportion of its operating income in non operating activities.

Capital Structure Ratio

- Looking at the debt ratio of both banks, it is found that NIBL & NSBIBL are comparatively highly levered firm. The debt ratio of NIBL and NSBIBL are 93.37% and 92.49% respectively. So far NIBL has used more debt than compare to NSBIBL. High gained firm is highly risky than low gained firm, therefore on this point of view, NIBL is highly risky than NSBIBL. The C.V. of NIBL I 0.74% which implies that the ratio of NIBL is quite consistent.

- Leverage factor of NIBL and NSBIBL are 6.66% and 7.50% respectively. This implies that the claim of shareholders of NIBL on total assets is less than that of NSBIBL. NSBIBL has used more equity in its capital structure than NIBL.

- The capital adequacy ratio of NIBL and NSBIBL are 7.56% and 8.90% respectively. The figure of the ratio shows that the capital adequacy ratio of NIBL is less than that of NSBIBL. As per the latest provision of Nepal Rastra Bank amended in 1992, the commercial bank should maintain its capital adequacy ratio atleast 8% but the ratio of NIBL was lower than that the standard in early years but it gradually increased its capital adequacy ratio year by year.

- The interest coverage ratio of NIBL and NSBIBL are 1.17 and 0.71 respectively. The income of NSBIBL is even less than the interest paid to its depositors hence, obtained the ratio less than unit. On this point, NIBL is generating a better level of earnings than NSBIBL.

Liquidity Ratio

- The current ratio of NIBL and NSBIBL are 0.37 and 0.36 times respectively. The current ratios of both of the banks are less than the generally expected standard of 2:1. This seems to be a great problem for the banks. In this conditions the bank may not be able to pay its short term obligations and may be carried the bank for legal action. But only having low capacity of paying to shareholders is not the entire factors. Along with the current ratio, other factors like credit worthiness, quality of assets and nature of business are also to be considered.
- Cash & bank balance to total deposit ratio of NSBIBL is 11.22% that is higher than that of NIBL. This implies that NSBIBL has high proportion of liquid assets with respect to total deposits in the bank than NIBL. Unlike, the ratio of cash & bank balance to current assets of NIBL is less than NSBIBL i.e. 26.25% < 28.42%. But the ratio of NSBIBL is not consistent as NIBL. This strengthens the liquidity position of NSBIBL is strong than NIBL. As far as the C.V. of the ratio of NIBL shows the ratio is relatively consistent than NSBIBL.
- Investment in government securities to current assets ratio of NSBIBL is higher than that of NIBL i.e. 63.43% and 30.89%. Investing higher portion of current assets in government securities secures the business by being loss. But this action, on the other hand, ties the fund which consequently reduces the liquidity of the bank.

- The ratio of loan & advances to current assets of NSBIBL is higher than that of NIBL. This reveals the NSBIBL has used its current assets on loan & advances for incoming generating.

- Fixed deposit to total deposits of NIBL & NSBIBL are 24.56% and 72.74% respectively. The C.V. of the ratios of banks is 19.46% and 7.84%. These figures conclude that the proportion of fixed deposit to total deposits of NSBIBL is higher than that of NIBL. The higher fixed deposit on total deposit enable the bank to lend the fund for long term and not to be maintain sufficient liquidity before the maturity but in another hand, has to pay higher interest charge on such fund.

- The ratio of saving to total deposit of NIBL & NSBIBL is 41.34% and 27.23%. This reveals that the saving deposit contributes maximum in total deposit of NIBL and the ratio is quite consistent over the study period.

- The analysis of cash flow statements reveals that NIBL has high level of cash flow its operation through out the year than NSBIBL. The average cash flow of NIBL and NSBIBL is Rs. 4434.33 and Rs. 2212.70 respectively. The C.V. of the annual cash flow of the banks is 50.04% and 29.35% respectively. From these facts it can be concluded that NIBL has higher level of cash flow in the year however the cash flow is highly fluctuating for the same bank rather than that of NSBIBL.

Income And Expenditure Analysis

- Interest income alone contributes about 80.09% and 88.15% in average on total income of NIBL and NSBIBL. But the ratio of interest income on total income of NIBL is high volatile than that of NSBIBL.

- Commission and discount stands the second major income source for NSBIBL which contributes 5.64% in total income. In spite of contributing higher percentage of ratio than NIBL, commission and discount stands as second high income source for NSBIBL. NIBL receive 8.62% of total income from foreign income which stands second major source of income over the study period for NIBL. The C.V. of foreign income to total income of NSBIBL is 15.95% is higher than that of NIBL that is 11.25%. Foreign exchange income is the third major source of income for NSBIBL which carries about 4.89% in average.

- Other income stands in the forth position in the income pattern of the two sampled banks. The source of income of NIBL contributes about 3.69% in average and for NSBIBL is 1.28% only. In addition the ratio is not consistent over the study period reflected by the high coefficient of variation at all. The last source of income is dividend received on investment made on the shares of other enterprises. Both bank accounts about 0.01% in total income.

- Likewise, interest expenses is the major sources of expenses carries about 65.35% for NIBL and 77.88% for NSBIBL. The interest expenses of NSBIBL are higher than that of NIBL. Similarly, staff expenses stand in second position of expenses queue. It carries 17.28% and 10.38% of total expenses in sampled banks respectively. These ratios for both banks are not almost equal. NIBL expenses higher proportion of total expenses in general expenses than NSBIBL. These expenses carry about 10.94% and 7.52% of total expenses. And at last, the bonus facility to staff comes in the last position in expenses queue.

Trend Analysis

- The total deposit of NIBL has been decreased from year 2060/2061. The regression analysis of total deposits bank shows that the mean of total deposit of NIBL is higher than that of NSBIBL and the co-efficient of slope of trend line of NIBL is higher than NSBIBL which implies that the total deposit of also increases in future also.
- Like total deposit, the regression line of loan and advances of NIBL is steeply slope in comparison to NSBIBL. This indicates that loan and advances of NIBL would be higher than NSBIBL if same condition prevails
- Regarding the trend of net worth of two banks, NIBL has better trend line of net worth than that of NSBIBL. This indicates that the net worth of NIBL an overtake the net worth of NSBIBL.
- A like above, co-efficient of the slope of the trend line of total assets of NIBL is 68,351.23 higher than that of NSBIBL. In present the average total assets of NIBL is higher than that of NSBIBL.
- Presently the net profit of NIBL is higher than that of NSBIBL since NIBL has higher co-efficient of y-intercept (a) i.e. 2707.14 > 1077.71 and the trend line slope of NIBL is also higher than that of NSBIBL i.e. 967.03 > 468.52. From this fact it can be concluded that the net profit of NIBL will increase also in future if present conditions prevails.
- In contrary with the trend of financial indicator of NIBL, the trend line of EPS of NIBL is less than that of NSBIBL which indicates that the earning per share of NIBL would decrease per year.
- The trend line of market price per share of both banks implies that the MPS of the banks would continue to increase even in future. The coefficient of NIBL is higher than that of NSBIBL which indicates that the MPS of NIBL would follow rapidly than MPS of NSBIBL.

Test Of Hypothesis

The first hypothesis is to test whether there is significant difference in mean profitability ratio of two banks or not. For this t-test have been employed and from this testing following findings are found out.

- Net profit to total deposit and net profit to total assets of two banks are not significantly different. But interest earned to total assets, net profit to net worth & return on risk assets of two banks are significantly different.
- As per the valuation ratio is concerned, there is no significant different in any of the ratios like price earning ratio & dividend ratio.
- Regarding activity ratios, the mean ratio of loan & advance to total deposit, investment to total deposit are statistically uniform but the ratio loan & advance to fixed deposit, loan & advance to saving deposits of the sampled banks are statistically different.
- T test evident that there is no significantly different in mean ratio of the personnel expenses to total income and other general income to total operating expenses of to banks.
- The mean current ratios of two banks are alike but the rest of the leverage ratios namely, total debt ratio & leverage factor, are not significantly different but capital adequacy & interest coverage ratio of both NIBL & NSBIBL are statistically different.
- Regarding liquidity ratios used current ratio, cash & bank balance to total deposit, loan & advance to current assets, cash & bank balance to current assets, are not significantly different on two sampled banks but the mean ratio of investment in government securities to current assets, fixed deposit to total deposits & saving deposit to total deposits of two banks are different.

CHAPTER 5

SUMMARY, CONCLUSION & RECOMMENDATION

5.1 Summary

Banking plays a great role in the development of a country. Basically, financial system is the channel through which mobilization and allocation of savings is carried out in the economy. As such, the financial system facilities the transfer of financial resources from savers to borrowers. With these objectives, commercial bank plays a vital role. Banking helps to mobilize small saving collectivity to the huge capital investment. In this sense, systematic collection of idle funds and the subsequent mobilization or canalization has supplemented not only the financial needs of trading, manufacturing and service industries but also provided the necessary finances for agriculture sectors. Though, the banking is considered as the platform of money market and capital markets, commercial bank help to provide the money market and capital market, commercial banks help to promote the money market.

After linearization policy taken by the government in 1990 A.D. many financial institutions are opened. The economy boosted from the date. As a result the competitions among the commercial banks, finance companies, development banks become very tough. As the present scenario of Nepal's entry in WTO, SAFTA, foreign banks are also able to operate their branch bank in Nepal, will make Nepalese financial industries more competitive. Thus, the banks of the country should be able to cope with the change of the conditions by strengthening the financial position, rendering new & effective services to the customers, innovating new services and techniques. Undoubtedly, the role of commercial banks has become crucial in capital formation.

Presently 21 commercial banks are operating in the country, among that 18 banks are listed in NEPSE. Out of 18 banks, two commercial banks namely Nepal Investment Bank Ltd. and Nepal SBI Bank Ltd. are selected as the sample banks for this thesis work. The objectives, functions, policies and strategies of joint venture banks have been emphasized and the performances of the two sampled banks have been analyzed. The main purpose of selecting these two banks are , they have been offering all kind of available facilities available in banking sectors in the country. The study is mainly based on the secondary data publicly available in the NEPSE data bade and the annual report of respective banks. For the study, the five year data of the banks have been pooled starting from FY. 2059/2060 to FY. 2063/2064. The collected data of the banks for the study purpose are thoroughly processed, tabulated for the required format, different measures of the data have been calculated using different statistical tools and financial tools with the best effort.

The entire thesis has been classified into five chapters namely, (I) Introduction (II) Review Of Literature (III) Research Methodology (IV) Data presentation And Analysis, and finally (V) Summary, Conclusion And Recommendations.

In the first chapter, background, focuses, objectives, limitations, hypothesis formulations, statement of problems are briefly discussed. In second chapter the relevant literature of the topic, articles, books and journals are studied and reviewed. The unpublished theses relating to the subject matter have been reviewed. In third chapter the statistical and financial tools have been studied for the study. The brief explanation of the tools and the logic for using the tools also has been presented. The methodology, research design to be followed, types of data, data collection process, method of the data collection process, sample and population are presented. The forth chapter is about the presentation and the analysis of the data, the major findings of the study are presented on the basis of the analysis carried out in the thesis.

The last chapter is about the summary, conclusion and recommendations to the concern parties are presented. The conclusion and recommendations are extended from the data analysis and computations of different financial and statistical tools are very useful to the banks especially. Thus to follow the recommendation of this work would be a milestone to improve their weak points in future performance and to strengthen their financial presence in the market.

5.2 Conclusion

The main conclusions of the study are presented as below:

Unsatisfactory Profit

The main objective of banks is to earn profit so that they could serve all the stakeholders of the banks. Therefore, the profit is the main measure of financial performance of the banks. Both of the banks have been earning positive amount of profit but it is unsatisfactory. Both of the bank are earning about just 1.5% around of earning on their total deposit. While comparing the profitability ratios of two banks, all the profitability ratio used to evaluate the profitability position of the banks show that NIBL has better profitability than NSBIBL. Furthermore, the growth rates of all financial indicators of NIBL are higher than that of NSBIBL which reveals that the increasing trend of profitability of NIBL is also better than that of NSBIBL. The dividend yield of NIBL is always higher than that of NIBL which reveals that the increasing trend of profitability of NIBL is also better than that of NSBIBL. The dividend yield of NIBL is always higher than NSBIBL but the earning ratio of NSBIBL is not sufficient as per the other financial indicators.

Satisfactory Utilization Of Assets

From the finding of performance measure, it can be concluded that both the banks have been able to use their fund successfully over the study period. While comparing the banks it is found that NIBL is more successful in this connection than NSBIBL. The loan & advance to total deposits, loan & advance to fixed deposits, loan & advance to saving deposits, the ratio of investment on performance assets are higher than those of NSBIBL. On the light of

these facts it can be concluded that NIBL has used its assets more effectively for profit making purpose than NSBIBL.

Highly Levered Capital Structure

The leverage factor of NSBIBL is higher than that of NIBL. The total debt ratio of NIBL is higher than that of NSBIBL. However, both of the banks have used more than 80% of debt.

NIBL has used about 14.37% internal fund in its capital structure while NSBIBL has used about 30.29% of shareholders equity in its capital structure. These conclude that both of the banks highly levered firm and between them NIBL is more highly levered firm. Higher leverage results the high percentage of risk in the firm. In this context, NIBL is risky firm than NSBIBL.

Unsatisfactory Liquidity Position

As the conclusion, the liquidity position of both of the banks is unsatisfactory. The current ratio of both banks is below than wide accepted standard. Both of the banks' current ratio is around 0.89:1, is quite low. The cash reserve ratios of both of the banks are below than 8%, the standard of NRB. From working capital points of view, both of the banks have used aggressive working capital policy. NSBIBL maintain higher cash and bank balance to current assets ratio. Loan & advance to current assets ratio of NSBIBL is higher than that of NIBL and NIBL has collected its total deposit from fixed deposit than NIBL. This implies that NIBL avails higher liquidity than NSBIBL.

High Interest Income Coverage

While analyzing the income and expenditure of both of the banks it is found that both of banks interest income covers about 80% to 85% of total income. Commission and discount income contributes about 7% to 8% for NIBL and 5% to 6% for NSBIBL and other income contributes about 3% to 4% in total income and dividend income contributes about less than 1% in NIBL's income. This shows that although, interest is the dominant income source of banks. NSBIBL depends mostly on interest income than NIBL and depending into a single source of income is not a good practice for the health of the institution.

Regression analysis of financial indicators conclude that the financial indicators of NIBL at present is better than that of NSBIBL but the slope of regression line of financial indicators of NSBIBL show that they will grow in a greater pace than those of NIBL. These facts emphasize that, NSBIBL bank has high profitability of better performance in future.

5.3 Recommendations

Based on the analysis concluded on previous chapter, some shorts are found. Thus, following recommendations could be possibly helpful to improve their future financial performance.

- Profit is essential for the survival and growth of banks. As per the findings, profits of both of the sampled banks are not at satisfactory level. Therefore, they are suggested to generate higher profit for the survival and growth of the firm.

- There is very low liquidity position in both of the sampled banks. Therefore, both the banks should be diagnosed the root cause for low liquidity ratio and should improve the liquidity ratio. For this not only the quantity of the liquidity but also quality of the liquidity should be considered.

- The deposit of NIBL is on the way of degradation. Low volume of deposits adversely affects in investment, which ultimately decrease the profitability of the bank. The management should start the deposit promotion program to increase the deposit level of bank. For this, the bank can launch for pity cash deposit program like Kopila Bachat program of BOKL, lowering the minimum deposit balance, insurance scheme like Ghrihani Bachat Yojana of NBBL. In order to attract those who are habitual of baking practices, the bank should provide mobile banking, debit and credit card facilities.

- The activity ratio of NSBIBL is poor in compare to NIBL. Thus, NSBIBL is suggested to improve its activity ratio by efficiently mobilizing the fund of the bank.

- Interest income remains the main source if income of both banks. And NSBIBL is even more depends upon the interest income. Therefore, it is suggested to both of the banks to diversify the income pattern to other sector as well such as involving more in foreign trade and other emerged sectors.

- Capital adequacy ratios of both the banks are lower than the standard. Capital adequacy support against the risk of confidence, instability of the market and other various risks elements. However, while imposing capital standard, Nepal Rastra Banks should have considered upon introducing certain means of complementary capital norms such as :

  i. Strengthening inspection and supervision of banks, and
  ii. Introducing deposits insurance

- Investors of any firm are always fascinating towards the EPS and DPS of the firm. Here it is observed that the EPD and DPS of NSBIBL are quite low. Therefore, the bank should think to improve these financial indicators so that it could convey the right message in the market.

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APPENDIX - 1

Statistical Value Of Total Deposits Of NIBL **(In Lakhs Rs.)**

Year	**X = t-2061/62**	**Y = (Total Deposit)**	**XY**	**X²**
2059/60	-2	79,227.66	(158,455.32)	4.00
2060/61	-1	115,246.79	(115,246.79)	1.00
2061/62	0	142,545.74	0.00	0.00
2062/63	1	189,273.06	189,273.06	1.00
2063/64	2	244,888.56	489,777.12	4.00
∑	**0**	**771,181.81**	**405,348.07**	**10.00**

Here, n = 5

$$\sum Y = na \qquad \sum XY = b\sum X^2$$

$$\ldots a = \frac{\phi Y}{n}$$

$$= \frac{771,181.81}{5} = 154,236.36$$

$$\ldots b = \frac{\phi XY}{\phi X^2}$$

$$= \frac{405,348.07}{10.00} = 40,534.81$$

Statistical Value Of Total Deposits Of NSBIBL **(In Lakhs Rs.)**

Year	**X = t-2061/62**	**Y = (Total Deposit)**	**XY**	**X²**
2059/60	-2	65,228.17	(130,456.34)	4.00
2060/61	-1	71,983.27	(71,983.27)	1.00
2061/62	0	86,547.74	0.00	0.00
2062/63	1	110,020.40	110,020.40	1.00
2063/64	2	114,452.86	228,905.72	4.00
∑	**0**	**448,232.44**	**136,486.51**	**10.00**

Here, n = 5

$$\sum Y = na \qquad \sum XY = b\sum X^2$$

$$\ldots a = \frac{\phi Y}{n}$$

$$= \frac{448,232.44}{5} = 89,646.49$$

$$\ldots b = \frac{\phi XY}{\phi X^2}$$

$$= \frac{136,486.51}{10.00} = 13,648.65$$

APPENDIX - 2

Statistical Value Of Loan & Advance Of NIBL **(In Lakhs Rs.)**

Year	**X = t-2061/62**	**Y = (Loan & Advance)**	**XY**	**X^2**
2059/60	-2	57,721.40	(115,442.80)	4.00
2060/61	-1	71,301.26	(71,301.26)	1.00
2061/62	0	101,260.56	0.00	0.00
2062/63	1	127,762.08	127,762.08	1.00
2063/64	2	172,864.27	345,728.54	4.00
∑	**0**	**530,909.57**	**286746.56**	**10.00**

Here, n = 5

$\sum Y = na \qquad \sum XY = b\sum X^2$

$\ldots a = \frac{\phi Y}{n}$

$= \frac{530,909.57}{5} = 106,181.91$

$\ldots b = \frac{\phi XY}{\phi X^2}$

$= \frac{286,746.56}{10.00} = 28,674.66$

Statistical Value Of Loan & Advance Of NSBIBL **(In Lakhs Rs.)**

Year	**X = t-2061/62**	**Y = (Loan & Advance)**	**XY**	**X^2**
2059/60	-2	44,687.20	(89,374.40)	4.00
2060/61	-1	51,436.62	(51,436.62)	1.00
2061/62	0	62,138.78	0.00	0.00
2062/63	1	76,267.36	76,267.36	1.00
2063/64	2	94,604.51	189,209.02	4.00
∑	**0**	**329,134.47**	**124,665.36**	**10.00**

Here, n = 5

$\sum Y = na \qquad \sum XY = b\sum X^2$

$\ldots a = \frac{\phi Y}{n}$

$= \frac{329,134.47}{5} = 65,826.89$

$\ldots b = \frac{\phi XY}{\phi X^2}$

$= \frac{124,665.36}{10.00} = 12,466.54$

APPENDIX - *3*

Statistical Value Of Net Worth Of NIBL **(In Lakhs Rs.)**

Year	**X = t-2061/62**	**Y = (Net Worth)**	**XY**	**X^2**
2059/60	-2	6,385.42	(12,770.84)	4.00
2060/61	-1	7,290.48	(7,290.48)	1.00
2061/62	0	11,801.73	0.00	0.00
2062/63	1	14,154.40	14,154.40	1.00
2063/64	2	18,781.24	37,562.48	4.00
∑	**0**	**58,413.27**	**31,655.56**	**10.00**

Here, n = 5

$\sum Y = na \qquad \sum XY = b\sum X^2$

$\ldots a = \frac{\phi Y}{n}$

$= \frac{58,413.27}{5} = 11,682.65$

$\ldots b = \frac{\phi XY}{\phi X^2}$

$= \frac{31,655.56}{10.00} = 3,165.56$

Statistical Value Of Net Worth Of NSBIBL **(In Lakhs Rs.)**

Year	**X = t-2061/62**	**Y = (Net Worth)**	**XY**	**X^2**
2059/60	-2	5,698.52	(11,397.04)	4.00
2060/61	-1	6,266.37	(6,266.37)	1.00
2061/62	0	6,890.13	0.00	0.00
2062/63	1	9,823.74	9,823.74	1.00
2063/64	2	11,632.90	23,265.80	4.00
∑	**0**	**40,311.66**	**15,426.13**	**10.00**

Here, n = 5

$\sum Y = na \qquad \sum XY = b\sum X^2$

$\ldots a = \frac{\phi Y}{n}$

$= \frac{40,311.66}{5} = 8,062.33$

$\ldots b = \frac{\phi XY}{\phi X^2}$

$= \frac{15,426.13}{10.00} = 1,542.61$

APPENDIX - 4

Statistical Value Of Total Assets Of NIBL **(In Lakhs Rs.)**

Year	**X = t-2061/62**	**Y = (Total Assets)**	**XY**	**X^2**
2059/60	-2	90,142.50	(180,285.00)	4.00
2060/61	-1	132,554.96	(132,554.96)	1.00
2061/62	0	162,740.64	0.00	0.00
2062/63	1	213,301.37	213,301.37	1.00
2063/64	2	275,908.45	551,816.90	4.00
∑	**0**	**874,647.92**	**452,278.31**	**10.00**

Here, n = 5

$\sum Y = na \qquad \sum XY = b\sum X^2$

$\ldots a = \frac{\phi Y}{n}$

$= \frac{874,647.92}{5} = 174,929.58$

$\ldots b = \frac{\phi XY}{\phi X^2}$

$= \frac{452,278.31}{10.00} = 45,227.83$

Statistical Value Of Total Assets Of NSBIBL **(In Lakhs Rs.)**

Year	**X = t-2061/62**	**Y = (Total Assets)**	**XY**	**X^2**
2059/60	-2	75,663.27	(151,326.54)	4.00
2060/61	-1	84,404.06	(84,404.06)	1.00
2061/62	0	103,453.00	0.00	0.00
2062/63	1	130,359.39	130,359.39	1.00
2063/64	2	139,012.01	278,024.02	4.00
∑	**0**	**532,891.73**	**172,652.81**	**10.00**

Here, n = 5

$\sum Y = na \qquad \sum XY = b\sum X^2$

$\ldots a = \frac{\phi Y}{n}$

$= \frac{532,891.73}{5} = 106,578.35$

$\ldots b = \frac{\phi XY}{\phi X^2}$

$= \frac{172,652.81}{10.00} = 17,265.28$

APPENDIX - *5*

Statistical Value Of Net Profit Of NIBL **(In Lakhs Rs.)**

Year	**X = t-2061/62**	**Y = (Net Profit)**	**XY**	**X^2**
2059/60	-2	1,168.18	(2,336.36)	4.00
2060/61	-1	1,526.71	(1,526.71)	1.00
2061/62	0	2,321.47	0.00	0.00
2062/63	1	3,505.36	3,505.36	1.00
2063/64	2	5,013.98	10,027.96	4.00
∑	**0**	**13,535.70**	**9,670.25**	**10.00**

Here, n = 5

$\sum Y = na \qquad \sum XY = b\sum X^2$

$\ldots a = \frac{\phi Y}{n}$

$= \frac{13,535.70}{5} = 2,707.14$

$\ldots b = \frac{\phi XY}{\phi X^2}$

$= \frac{9,670.25}{10.00} = 967.03$

Statistical Value Of Net Profit Of NSBIBL **(In Lakhs Rs.)**

Year	**X = t-2061/62**	**Y = (Net Profit)**	**XY**	**X^2**
2059/60	-2	487,48	(974.96)	4.00
2060/61	-1	608.07	(608.07)	1.00
2061/62	0	573.87	0.00	0.00
2062/63	1	1,170.02	1,170.02	1.00
2063/64	2	2,549.09	5,098.18	4.00
∑	**0**	**5,388.53**	**4,685.17**	**10.00**

Here, n = 5

$\sum Y = na \qquad \sum XY = b\sum X^2$

$\ldots a = \frac{\phi Y}{n}$

$= \frac{5,388.53}{5} = 1,077.71$

$\ldots b = \frac{\phi XY}{\phi X^2}$

$= \frac{4,685.17}{10.00} = 468.52$

APPENDIX - 6

Statistical Value Of EPS Of NIBL **(In Lakhs Rs.)**

Year	X = t-2061/62	Y = (EPS)	XY	X^2
2059/60	-2	39.56	(79.12)	4.00
2060/61	-1	51.70	(51.70)	1.00
2061/62	0	39.50	0.00	0.00
2062/63	1	59.35	59.35	1.00
2063/64	2	62.57	125.14	4.00
∑	**0**	**252.68**	**53.67**	**10.00**

Here, n = 5

$\sum Y = na \qquad \sum XY = b\sum X^2$

$\ldots a = \frac{\phi Y}{n}$

$= \frac{252.68}{5} = 50.54$

$\ldots b = \frac{\phi XY}{\phi X^2}$

$= \frac{53.67}{10.00} = 5.37$

Statistical Value Of EPS Of NSBIBL **(In Lakhs Rs.)**

Year	X = t-2061/62	Y = (EPS)	XY	X^2
2059/60	-2	11.47	(22.94)	4.00
2060/61	-1	14.26	(14.26)	1.00
2061/62	0	13.29	0.00	0.00
2062/63	1	18.27	18.27	1.00
2063/64	2	39.35	78.70	4.00
∑	**0**	**96.64**	**59.77**	**10.00**

Here, n = 5

$\sum Y = na \qquad \sum XY = b\sum X^2$

$\ldots a = \frac{\phi Y}{n}$

$= \frac{96.64}{5} = 19.33$

$\ldots b = \frac{\phi XY}{\phi X^2}$

$= \frac{59.77}{10.00} = 5.98$

APPENDIX - 7

Statistical Value Of MPS Of NIBL **(In Lakhs Rs.)**

Year	**X = t-2061/62**	**Y = (MPS)**	**XY**	**X^2**
2059/60	-2	795.00	(1,590.00)	4.00
2060/61	-1	940.00	(940.00)	1.00
2061/62	0	800.00	0.00	0.00
2062/63	1	1,260.00	1,260.00	1.00
2063/64	2	1,729.00	3,458.00	4.00
∑	**0**	**5,524.00**	**2,188.00**	**10.00**

Here, n = 5

$\sum Y = na \qquad \sum XY = b\sum X^2$

$\ldots a = \frac{\phi Y}{n}$

$= \frac{5,524.00}{5} = 1,104.80$

$\ldots b = \frac{\phi XY}{\phi X^2}$

$= \frac{2,188.00}{10.00} = 218.80$

Statistical Value Of MPS Of NSBIBL **(In Lakhs Rs.)**

Year	**X = t-2061/62**	**Y = (MPS)**	**XY**	**X^2**
2059/60	-2	255.00	(510.00)	4.00
2060/61	-1	307.00	(307.00)	1.00
2061/62	0	355.00	0.00	0.00
2062/63	1	612.00	612.00	1.00
2063/64	2	1,176.00	2,352.00	4.00
∑	**0**	**2,705.00**	**2,147.00**	**10.00**

Here, n = 5

$\sum Y = na \qquad \sum XY = b\sum X^2$

$\ldots a = \frac{\phi Y}{n}$

$= \frac{2,705.00}{5} = 541.00$

$\ldots b = \frac{\phi XY}{\phi X^2}$

$= \frac{2,147.00}{10.00} = 214.70$

APPENDIX - 8

Statistical Value Of Investment Of NIBL **(In Lakhs Rs.)**

Year	**X = t-2061/62**	**Y = (MPS)**	**XY**	**X^2**
2059/60	-2	17,052.41	(34,104.82)	4.00
2060/61	-1	38,624.83	(38,624.83)	1.00
2061/62	0	39,341.89	0.00	0.00
2062/63	1	56,028.67	56,028.67	1.00
2063/64	2	65,056.80	130,113.60	4.00
∑	**0**	**216,104.60**	**113,412.62**	**10.00**

Here, n = 5

$$\sum Y = na \qquad \sum XY = b\sum X^2$$

$$\ldots a = \frac{\phi Y}{n}$$

$$= \frac{216,104.60}{5} = 43,220.92$$

$$\ldots b = \frac{\phi XY}{\phi X^2}$$

$$= \frac{113,412.62}{10.00} = 11,341.26$$

Statistical Value Of MPS Of NSBIBL **(In Lakhs Rs.)**

Year	X = t-2061/62	Y = (MPS)	XY	X^2
2059/60	-2	12,072.75	(24,145.50)	4.00
2060/61	-1	19,075.21	(19,075.21)	1.00
2061/62	0	26,076.80	0.00	0.00
2062/63	1	37,589.75	37,589.75	1.00
2063/64	2	26,594.53	53,189.06	4.00
∑	**0**	**121,409.04**	**47,558.10**	**10.00**

Here, n = 5

$$\sum Y = na \qquad \sum XY = b\sum X^2$$

$$\ldots a = \frac{\phi Y}{n}$$

$$= \frac{121,409.04}{5} = 24,281.81$$

$$\ldots b = \frac{\phi XY}{\phi X^2}$$

$$= \frac{47,558.10}{10.00} = 4,755.81$$

APPENDIX – 9

T - Test Of Profitability Ratio

Interest Earned To Total Assets

YEARS	NIBL			NSBIBL		
	X	**x = X - X̄**	**x^2**	**Y**	**y = Y - Ȳ**	**y^2**
2059/60	3.00	(0.16)	0.02	2.35	(0.48)	0.23
2060/61	3.06	(0.10)	0.01	2.82	(0.01)	0.01
2061/62	3.27	0.11	0.01	3.09	0.26	0.07
2062/63	3.20	(0.04)	0.01	2.87	(0.04)	0.01
2063/64	3.26	0.10	0.01	3.01	(0.18)	0.03
∑	**15.79**		**0.06**	**14.14**		**0.35**

Here,

$$\bar{X} = \frac{\sum X}{n} = \frac{15.79}{5} = 3.16$$

$$\bar{Y} = \frac{\sum Y}{n} = \frac{14.14}{5} = 2.83$$

$$S^2 = \frac{1}{n_1+n_2-2}\left[\sum(X-\bar{X})^2 + \sum(Y-\bar{Y})^2\right]$$

$$= \frac{0.07 + 0.35}{5+5-2} = \frac{0.42}{8} = 0.053$$

$$t = \frac{\bar{X} - \bar{Y}}{s^2 \frac{1}{n_1} + \frac{1}{n_2}}$$

$$= \frac{3.16 - 2.83}{0.053 \frac{1}{5} + \frac{1}{5}} = \frac{0.33}{0.021} = \frac{0.33}{0.15} = 2.20$$

APPENDIX – 10
T - Test Of Profitability Ratio
Net Profit To Total Deposit

YEARS	NIBL			NSBIBL		
	X	**x = X – X**	**x^2**	**Y**	**y = Y - Y**	**y^2**
2059/60	1.47	(0.19)	0.04	0.75	(0.36)	0.13
2060/61	1.32	(0.34)	0.12	0.84	(0.27)	0.07
2061/62	1.63	(0.03)	0.01	0.66	(0.45)	0.20
2062/63	1.85	0.19	0.03	1.06	(0.05)	0.01
2063/64	2.05	0.39	0.15	2.23	1.12	1.26
∑	**8.32**		**0.35**	**5.54**		**1.66**

Here,

$$X = \frac{\sum X}{n} = \frac{8.32}{5} = 1.66$$

$$Y = \frac{\sum Y}{n} = \frac{5.54}{5} = 1.11$$

$$S^2 = \frac{1}{n_1+n_2-2} \left[\sum(X- X)^2 + \sum(Y- Y)^2 \right]$$

$$= \frac{0.35 + 1.66}{5+5-2} = \frac{2.01}{8} = 0.252$$

$$t = \frac{X - Y}{s^2 \frac{1}{n_1} + \frac{1}{n_2}}$$

$$= \frac{1.66 - 1.11}{0.053 \frac{1}{5} + \frac{1}{5}} = \frac{0.56}{0.101} = \frac{0.56}{0.32} = 1.72$$

APPENDIX – 11
T - Test Of Profitability Ratio
Net Profit To Total Assets

YEARS	NIBL			NSBIBL		
	X	**x = X - X**	**x^2**	**Y**	**y = Y - Y**	**y^2**
2059/60	1.30	(0.17)	1.30	0.64	(0.29)	0.08
2060/61	1.15	(0.32)	0.10	0.72	(0.21)	0.04
2061/62	1.43	(0.04)	0.01	0.55	(0.38)	0.14
2062/63	1.64	0.17	0.03	0.90	(0.03)	0.01
2063/64	1.82	0.35	0.12	1.83	0.90	0.81
∑	**7.34**		**0.29**	**4.64**		**1.09**

Here,

$$X = \frac{\sum X}{n} = \frac{7.34}{5} = 1.47$$

$$Y = \frac{\sum Y}{n} = \frac{4.64}{5} = 0.93$$

$$S^2 = \frac{1}{n_1+n_2-2} \left[\sum(X- X)^2 + \sum(Y- Y)^2 \right]$$

$$= \frac{0.29 + 1.09}{5+5-2} = \frac{1.39}{8} = 0.173$$

$$t = \frac{X - Y}{s^2 \frac{1}{n_1} + \frac{1}{n_2}}$$

$$= \frac{1.47 - 0.93}{0.173 \frac{1}{5} + \frac{1}{5}} = \frac{0.54}{0.069} = \frac{0.54}{0.26} = 2.08$$

APPENDIX – 12
T - Test Of Profitability Ratio
Net Profit To Net Worth

YEARS	NIBL			NSBIBL		
	X	**x = X - X**	**x^2**	**Y**	**y = Y - Y**	**y^2**
2059/60	18.29	(3.78)	14.32	8.55	(3.53)	12.46
2060/61	20.94	(1.13)	1.29	9.70	(2.38)	5.66
2061/62	19.67	(2.40)	5.78	8.33	(3.75)	14.06
2062/63	24.77	2.70	7.27	11.91	(0.17)	0.03
2063/64	26.70	4.63	21.40	21.91	9.83	96.63
∑	**110.37**		**50.05**	**60.40**		**128.85**

Here,

$$X = \frac{\sum X}{n} = \frac{110.37}{5} = 22.07$$

$$Y = \frac{\sum Y}{n} = \frac{128.85}{5} = 12.08$$

$$S^2 = \frac{1}{n_1+n_2-2} \left[\sum(X- X)^2 + \sum(Y- Y)^2 \right]$$

$$= \frac{50.05 + 128.85}{5+5-2} = \frac{178.90}{8} = 22.362$$

$$t = \frac{X - Y}{s^2 \frac{1}{n_1} + \frac{1}{n_2}}$$

$$= \frac{22.07 - 12.08}{22.362 \frac{1}{5} + \frac{1}{5}} = \frac{9.99}{8.945} = \frac{9.99}{2.99} = 3.34$$

APPENDIX – 13
T - Test Of Profitability Ratio
Return On Risk Assets

YEARS	NIBL			NSBIBL		
	X	**x = X - X**	**x^2**	**Y**	**y = Y - Y**	**y^2**
2059/60	2.02	(0.40)	0.16	1.09	(0.39)	0.15
2060/61	2.14	(0.28)	0.08	1.18	(0.30)	0.09
2061/62	2.29	(0.13)	0.02	0.92	(0.56)	0.32
2062/63	2.74	0.32	0.10	1.53	0.05	0.01
2063/64	2.90	0.48	0.23	2.69	1.21	1.46
∑	**12.09**		**0.59**	**7.41**		**2.03**

Here,

$$X = \frac{\sum X}{n} \qquad \frac{}{5} = 12.09 \qquad = 2.42$$

$$Y = \frac{\sum Y}{n} \qquad = \frac{7.41}{5} = 1.48$$

$$S^2 = \frac{1}{n1+n2-2} \left[\sum (X - X)^2 + \sum (Y - Y)^2 \right]$$

$$= \frac{0.59 + 2.03}{5+5-2} \qquad = \frac{2.62}{8} \qquad = 0.328$$

$$t = \frac{X - Y}{s^2 \frac{1}{n_1} + \frac{1}{n_2}}$$

$$= \frac{2.42 - 1.48}{0.328 \quad \frac{1}{5} + \frac{1}{5}} \quad = \frac{0.94}{0.131} \quad = \frac{0.94}{0.36} \qquad = 2.60$$

APPENDIX – 14
T - Test Of Valuation Measures
Price Earning Ratio

YEARS	NIBL			NSBIBL		
	X	**$x = X - \overline{X}$**	**x^2**	**Y**	**$y = Y - \overline{Y}$**	**y^2**
2059/60	20.09	(1.38)	1.92	22.23	(4.23)	17.93
2060/61	18.18	(3.29)	10.85	21.52	(4.94)	24.44
2061/62	20.25	(1.22)	1.50	25.20	(1.26)	1.60
2062/63	21.22	(0.25)	0.06	33.49	7.03	49.36
2063/64	27.63	6.16	37.90	29.88	3.42	11.67
∑	**107.37**		***52.22***	***132.32***		**105.00**

Here,

$$\overline{X} = \frac{\sum X}{n} = \frac{107.37}{5} = 21.47$$

$$\overline{Y} = \frac{\sum Y}{n} = \frac{132.32}{5} = 26.46$$

$$S^2 = \frac{1}{n1+n2-2}\left[\sum(X-\overline{X})^2+\sum(Y-\overline{Y})^2\right]$$

$$= \frac{52.22 + 105.00}{5+5-2} = \frac{157.23}{8} = 19.653$$

$$t = \frac{\overline{X} - \overline{Y}}{s^2\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}$$

$$= \frac{21.47 - 26.46}{19.653\left(\frac{1}{5} + \frac{1}{5}\right)} = \frac{-4.99}{7.861} = \frac{-4.99}{2.8} = |1.78| = 1.78$$

APPENDIX – 15

T - Test Of Valuation Measures

Market To Book Value Ratio

YEARS	NIBL			NSBIBL		
	X	**$x = X - \overline{X}$**	**x^2**	**Y**	**$y = Y - \overline{Y}$**	**y^2**
2059/60	1.24	0.24	0.06	1.90	(1.47)	2.16
2060/61	1.28	0.28	0.08	2.09	(1.28)	1.64
2061/62	0.67	(0.33)	0.11	2.23	(1.14)	1.30
2062/63	0.89	(0.11)	0.01	4.03	0.66	0.44
2063/64	0.92	(0.08)	0.01	6.60	3.23	10.43
∑	**5.00**		**0.26**	**16.85**		**15.97**

Here,

$$\overline{X} = \frac{\sum X}{n} = \frac{5.00}{5} = 1.00$$

$$\overline{Y} = \frac{\sum Y}{n} = \frac{16.85}{5} = 3.37$$

$$S^2 = \frac{1}{n1+n2-2}\left[\sum(X-\overline{X})^2 + \sum(Y-\overline{Y})^2\right]$$

$$= \frac{0.26 + 15.97}{5+5-2} = \frac{16.23}{8} = 2.029$$

$$t = \frac{\overline{X} - \overline{Y}}{s^2\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}$$

$$= \frac{1.00 - 3.37}{2.029\left(\frac{1}{5} + \frac{1}{5}\right)} = \frac{-2.37}{0.812} = \frac{-2.37}{0.90} = |2.63| = 2.63$$

APPENDIX – 16
T - Test Of Valuation Measures
Dividend Yield

YEARS	NIBL			NSBIBL		
	X	**$x = X - \overline{X}$**	**x^2**	**Y**	**$y = Y - \overline{Y}$**	**y^2**
2059/60	50.55	0.03	0.01	69.75	26.14	683.20
2060/61	29.01	(21.51)	462.77	0	(43.61)	1902.01
2061/62	31.65	(18.87)	356.15	0	(43.61)	1902.01
2062/63	93.45	42.93	1842.81	27.37	(16.24)	263.80
2063/64	47.95	(2.57)	6.62	120.94	77.33	5979.62
∑	**252.61**		**2668.36**	**218.06**		**10730.63**

Here,

$$\overline{X} = \frac{\sum X}{n} = \frac{252.61}{5} = 50.52$$

$$\overline{Y} = \frac{\sum Y}{n} = \frac{218.06}{5} = 43.61$$

$$S^2 = \frac{1}{n1+n2-2}\left[\sum(X-\overline{X})^2+\sum(Y-\overline{Y})^2\right]$$

$$= \frac{2.668.36+ 10,730.63}{5+5-2} = \frac{13,398.99}{8} = 1,674.873$$

$$t = \frac{\overline{X} - \overline{Y}}{s^2\left(\frac{1}{n_1}+\frac{1}{n_2}\right)}$$

$$= \frac{50.52 - 43.61}{1,674.873\left(\frac{1}{5}+\frac{1}{5}\right)} = \frac{6.91}{669.949} = \frac{6.91}{25.88} = 0.27$$

APPENDIX – 17

T - Test Of Leverage / Capital Structure Ratio

Total Debt Ratio

YEARS	NIBL			NSBIBL		
	X	**$x = X - \overline{X}$**	**x^2**	**Y**	**$y = Y - \overline{Y}$**	**y^2**
2059/60	92.92	(0.42)	0.18	92.47	(0.03)	0.01
2060/61	94.50	1.16	1.34	92.58	0.08	0.01
2061/62	92.75	(0.59)	0.35	93.34	0.84	0.71
2062/63	93.36	0.02	0.01	92.46	(0.04)	0.01
2063/64	93.19	(0.15)	0.02	91.63	(0.87)	0.75
∑	**466.72**		**1.90**	**462.48**		**1.49**

Here,

$$\overline{X} = \frac{\sum X}{n} = \frac{466.72}{5} = 93.34$$

$$\overline{Y} = \frac{\sum Y}{n} = \frac{462.48}{5} = 92.50$$

$$S^2 = \frac{1}{n1+n2-2}\left[\sum(X-\overline{X})^2 + \sum(Y-\overline{Y})^2\right]$$

$$= \frac{1.90 + 1.49}{5+5-2} = \frac{3.39}{8} = 0.424$$

$$t = \frac{\overline{X} - \overline{Y}}{s^2\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}$$

$$= \frac{93.34 - 92.50}{0.424\left(\frac{1}{5} + \frac{1}{5}\right)} = \frac{0.85}{0.170} = \frac{0.85}{0.41} = 2.07$$

APPENDIX – 18

T - Test Of Leverage / Capital Structure Ratio

Leverage Factor

YEARS	NIBL			NSBIBL		
	X	**$x = X - \overline{X}$**	**x^2**	**Y**	**$y = Y - \overline{Y}$**	**y^2**
2059/60	7.08	0.42	0.18	7.53	0.03	0.01
2060/61	5.50	(1.16)	1.34	7.42	(0.08)	0.01
2061/62	7.25	0.59	0.35	6.66	(0.84)	0.71
2062/63	6.64	(0.02)	0.01	7.54	0.04	0.01
2063/64	6.81	0.15	0.02	8.37	0.87	0.75
∑	**33.28**		**1.90**	**37.52**		**1.49**

Here,

$$\overline{X} = \frac{\sum X}{n} = \frac{33.28}{5} = 6.66$$

$$\overline{Y} = \frac{\sum Y}{n} = \frac{37.52}{5} = 7.50$$

$$S^2 = \frac{1}{n1+n2-2}\left[\sum(X-\overline{X})^2 + \sum(Y-\overline{Y})^2\right]$$

$$= \frac{1.90 + 1.49}{5+5-2} = \frac{3.39}{8} = 0.424$$

$$t = \frac{\overline{X} - \overline{Y}}{s^2\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}$$

$$= \frac{6.66 - 7.50}{0.424\left(\frac{1}{5} + \frac{1}{5}\right)} = \frac{-0.85}{0.170} = \frac{-0.85}{0.141} = |2.07| = 2.07$$

APPENDIX – 19

T - Test Of Leverage / Capital Structure Ratio

Capital Adequacy Ratio

YEARS	NIBL			NSBIBL		
	X	**$x = X - \overline{X}$**	**x^2**	**Y**	**$y = Y - \overline{Y}$**	**y^2**
2059/60	8.06	0.50	0.25	8.74	(0.16)	0.03
2060/61	6.33	(1.23)	1.52	8.71	(0.19)	0.04
2061/62	8.28	0.72	0.51	7.96	(0.94)	0.88
2062/63	7.48	(0.08)	0.01	8.93	0.03	0.01
2063/64	7.67	0.11	0.01	10.16	1.26	1.59
∑	**37.82**		**2.30**	**44.50**		**2.54**

Here,

$$\overline{X} = \frac{\sum X}{n} = \frac{37.82}{5} = 7.56$$

$$\overline{Y} = \frac{\sum Y}{n} = \frac{44.50}{5} = 8.90$$

$$S^2 = \frac{1}{n1+n2-2}\left[\sum(X-\overline{X})^2 + \sum(Y-\overline{Y})^2\right]$$

$$= \frac{2.30 + 2.54}{5+5-2} = \frac{4.84}{8} = 0.605$$

$$t = \frac{\overline{X} - \overline{Y}}{s^2\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}$$

$$= \frac{7.56 - 8.90}{0.605\left(\frac{1}{5} + \frac{1}{5}\right)} = \frac{-1.34}{0.242} = \frac{-0.85}{0.50} = |2.67| = 2.67$$

APPENDIX – 20

T - Test Of Leverage / Capital Structure Ratio

Interest Coverage Ratio

YEARS	NIBL			NSBIBL		
	X	**$x = X - \overline{X}$**	**x^2**	**Y**	**$y = Y - \overline{Y}$**	**y^2**
2059/60	1.06	(0.11)	0.01	0.62	(0.09)	0.01
2060/61	0.99	(0.18)	0.03	0.61	(0.10)	0.01
2061/62	1.34	0.17	0.03	0.76	0.05	0.01
2062/63	1.24	0.07	0.01	0.66	(0.05)	0.01
2063/64	1.24	0.07	0.01	0.92	0.21	0.04
∑	**5.87**		**0.10**	**3.57**		**0.09**

Here,

$$\overline{X} = \frac{\sum X}{n} = \frac{5.87}{5} = 1.17$$

$$\overline{Y} = \frac{\sum Y}{n} = \frac{3.57}{5} = 0.71$$

$$S^2 = \frac{1}{n1+n2-2} \left[\sum (X - \overline{X})^2 + \sum (Y - \overline{Y})^2 \right]$$

$$= \frac{0.10 + 0.09}{5+5-2} = \frac{0.19}{8} = 0.024$$

$$t = \frac{\overline{X} - \overline{Y}}{s^2 \frac{1}{n_1} + \frac{1}{n_2}}$$

$$= \frac{1.17 - 0.71}{0.024 \frac{1}{5} + \frac{1}{5}} = \frac{0.46}{0.010} = \frac{0.46}{0.10} = 4.60$$

APPENDIX – 21
T - Test Of Activity Ratio
Loan & Advance To Total Deposit

YEARS	NIBL			NSBIBL		
	X	**$x = X - \overline{X}$**	**x^2**	**Y**	**$y = Y - \overline{Y}$**	**y^2**
2059/60	72.86	4.09	16.71	68.51	(4.24)	17.98
2060/61	61.87	(6.90)	47.64	71.46	(1.29)	1.66
2061/62	71.04	2.27	5.14	71.80	(0.95)	0.90
2062/63	67.50	(1.27)	1.62	69.32	(3.43)	11.76
2063/64	70.59	1.82	3.31	82.66	9.91	98.21
$\sum$	**343.86**		**74.42**	**363.75**		**130.52**

Here,

$$\overline{X} = \frac{\sum X}{n} = \frac{343.86}{5} = 68.77$$

$$\overline{Y} = \frac{\sum Y}{n} = \frac{363.75}{5} = 72.75$$

$$S^2 = \frac{1}{n1+n2-2}\left[\sum(X-\overline{X})^2 + \sum(Y-\overline{Y})^2\right]$$

$$= \frac{74.42 + 130.52}{5+5-2} = \frac{204.93}{8} = 25.617$$

$$t = \frac{\overline{X} - \overline{Y}}{\sqrt{s^2\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

$$= \frac{68.77 - 72.75}{\sqrt{25.617\left(\frac{1}{5} + \frac{1}{5}\right)}} = \frac{-3.98}{10.247} = \frac{-3.98}{3.2} = |1.24| = 1.24$$

APPENDIX – *22*
T - Test Of Activity Ratio
Loan & Advance To Fixed Deposit

YEARS	NIBL			NSBIBL		
	X	**$x = X - \overline{X}$**	**x^2**	**Y**	**$y = Y - \overline{Y}$**	**y^2**
2059/60	345.05	57.65	3323.52	133.89	(13.22)	174.77
2060/61	310.72	23.32	543.82	153.44	6.33	40.07
2061/62	315.23	27.83	774.51	152.06	4.95	24.50
2062/63	236.03	(51.37)	2638.88	124.70	(22.41)	502.21
2063/64	229.97	(57.43)	3298.20	171.46	24.35	592.92
∑	**1,437.00**		**10,578.94**	**735.55**		**1,334.47**

Here,

$$\overline{X} = \frac{\sum X}{n} = \frac{1437.00}{5} = 287.40$$

$$\overline{Y} = \frac{\sum Y}{n} = \frac{735.55}{5} = 147.11$$

$$S^2 = \frac{1}{n1+n2-2}\left[\sum(X-\overline{X})^2 + \sum(Y-\overline{Y})^2\right]$$

$$= \frac{10,578.94 + 1,334.47}{5+5-2} = \frac{11,913.41}{8} = 1,489.176$$

$$t = \frac{\overline{X} - \overline{Y}}{\sqrt{s^2\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

$$= \frac{287.40 - 147.11}{\sqrt{1489.176\left(\frac{1}{5} + \frac{1}{5}\right)}} = \frac{140.29}{\sqrt{595.67}} = \frac{140.29}{24.41} = 5.75$$

APPENDIX – *23*
T - Test Of Activity Ratio
Loan & Advance To Saving Deposit

YEARS	NIBL			NSBIBL		
	X	**$x = X - \overline{X}$**	**x^2**	**Y**	**$y = Y - \overline{Y}$**	**y^2**
2059/60	237.14	66.51	4424.11	273.65	6.39	40.88
2060/61	145.93	(24.70)	609.89	251.77	(15.49)	239.82
2061/62	151.06	(19.57)	382.83	252.72	(14.54)	211.30
2062/63	158.08	(12.55)	157.40	269.24	1.98	3.94
2063/64	160.92	(9.71)	94.21	288.90	36.18	1308.99
∑	**853.13**		**5,668.44**	**1,336.28**		**1,804.92**

Here,

$$\overline{X} = \frac{\sum X}{n} = \frac{853.13}{5} = 170.63$$

$$\overline{Y} = \frac{\sum Y}{n} = \frac{1,336.28}{5} = 267.26$$

$$S^2 = \frac{1}{n1+n2-2}\left[\sum(X-\overline{X})^2 + \sum(Y-\overline{Y})^2\right]$$

$$= \frac{5,668.44 + 1,804.92}{5+5-2} = \frac{7,473.36}{8} = 934.171$$

$$t = \frac{\overline{X} - \overline{Y}}{s^2\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}$$

$$= \frac{170.63 - 267.26}{934.171\left(\frac{1}{5} + \frac{1}{5}\right)} = \frac{-96.63}{373.668} = \frac{-96.63}{19.33} = |5.00|$$

APPENDIX – 24
T - Test Of Activity Ratio
Performing Assets To Total Assets

YEARS	NIBL			NSBIBL		
	X	**$x = X - \overline{X}$**	**x^2**	**Y**	**$y = Y - \overline{Y}$**	**y^2**
2059/60	83.29	(3.82)	14.56	75.02	(9.72)	94.52
2060/61	85.27	(1.94)	3.75	83.54	(1.20)	1.44
2061/62	87.26	0.05	0.01	86.46	1.72	2.95
2062/63	113.24	26.03	677.77	88.99	4.25	18.05
2063/64	66.87	(20.34)	413.55	89.70	4.96	24.58
∑	**436.03**		**1,109.64**	**423.71**		**141.54**

Here,

$$\overline{X} = \frac{\sum X}{n} = \frac{436.03}{5} = 87.21$$

$$\overline{Y} = \frac{\sum Y}{n} = \frac{423.71}{5} = 84.74$$

$$S^2 = \frac{1}{n1+n2-2}\left[\sum(X-\overline{X})^2 + \sum(Y-\overline{Y})^2\right]$$

$$= \frac{1,109.64 + 141.54}{5+5-2} = \frac{1,251.19}{8} = 156.398$$

$$t = \frac{\overline{X} - \overline{Y}}{s^2\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}$$

$$= \frac{87.21 - 84.74}{156.398\left(\frac{1}{5} + \frac{1}{5}\right)} = \frac{2.46}{62.559} = \frac{2.46}{7.90} = 0.31$$

APPENDIX – *25*
T - Test Of Activity Ratio
Performing Assets To Total Debt

YEARS	NIBL			NSBIBL		
	X	**$x = X - \overline{X}$**	**x^2**	**Y**	**$y = Y - \overline{Y}$**	**y^2**
2059/60	89.75	(3.67)	13.47	81.13	(10.50)	110.21
2060/61	90.23	(3.19)	10.18	90.24	(1.39)	1.93
2061/62	94.08	0.66	0.44	92.63	1.00	1.00
2062/63	121.29	27.87	776.74	96.24	4.61	21.27
2063/64	71.75	(21.67)	469.59	97.90	6.27	39.34
$\sum$	**467.10**		**1270.41**	**458.14**		**173.75**

Here,

$$\overline{X} = \frac{\sum X}{n} = \frac{467.10}{5} = 93.42$$

$$\overline{Y} = \frac{\sum Y}{n} = \frac{458.14}{5} = 91.63$$

$$S^2 = \frac{1}{n1+n2-2}\left[\sum(X-\overline{X})^2 + \sum(Y-\overline{Y})^2\right]$$

$$= \frac{1,270.41 + 173.75}{5+5-2} = \frac{1,444.15}{8} = 180.519$$

$$t = \frac{\overline{X} - \overline{Y}}{s^2\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}$$

$$= \frac{93.42 - 91.63}{180.519\left(\frac{1}{5} + \frac{1}{5}\right)} = \frac{1.79}{72.208} = \frac{1.79}{8.5} = 0.21$$

APPENDIX – 26

T - Test Of Activity Ratio

Non Performing Assets To Total Assets

YEARS	NIBL			NSBIBL		
	X	$x = X - \overline{X}$	x^2	Y	$y = Y - \overline{Y}$	y^2
2059/60	21.70	2.68	7.18	31.19	11.66	135.91
2060/61	20.25	1.23	1.51	22.31	2.78	7.72
2061/62	18.19	(0.83)	0.69	19.13	(0.40)	0.16
2062/63	17.84	(1.18)	1.39	14.36	(5.17)	26.75
2063/64	17.12	(1.90)	3.61	10.67	(8.86)	78.54
∑	**95.10**		**14.39**	**97.66**		**249.07**

Here,

$$\overline{X} = \frac{\sum X}{n} = \frac{95.10}{5} = 19.02$$

$$\overline{Y} = \frac{\sum Y}{n} = \frac{97.66}{5} = 19.53$$

$$S^2 = \frac{1}{n1+n2-2}\left[\sum(X-\overline{X})^2 + \sum(Y-\overline{Y})^2\right]$$

$$= \frac{14.39 + 249.07}{5+5-2} = \frac{263.46}{8} = 32.932$$

$$t = \frac{\overline{X} - \overline{Y}}{\sqrt{s^2\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

$$= \frac{19.02 - 19.53}{\sqrt{32.932\left(\frac{1}{5} + \frac{1}{5}\right)}} = \frac{-0.51}{13.173} = \frac{-0.51}{3.63} = |0.14| = 0.14$$

APPENDIX – 27
T - Test Of Activity Ratio
Investment To Total Deposits

YEARS	NIBL			NSBIBL		
	X	**$x = X - \overline{X}$**	**x^2**	**Y**	**$y = Y - \overline{Y}$**	**y^2**
2059/60	21.52	(6.24)	38.94	18.51	(8.00)	64.00
2060/61	33.51	5.75	33.06	26.50	(0.01)	0.01
2061/62	27.60	(0.16)	0.03	30.13	3.62	13.10
2062/63	29.60	1.84	3.39	34.17	7.66	58.68
2063/64	26.57	(1.19)	1.42	23.24	(3.27)	10.69
∑	**138.80**		**76.83**	**132.55**		**146.48**

Here,

$$\overline{X} = \frac{\sum X}{n} = \frac{138.80}{5} = 27.76$$

$$\overline{Y} = \frac{\sum Y}{n} = \frac{132.55}{5} = 26.51$$

$$S^2 = \frac{1}{n1+n2-2}\left[\sum(X-\overline{X})^2 + \sum(Y-\overline{Y})^2\right]$$

$$= \frac{76.83 + 146.48}{5+5-2} = \frac{223.31}{8} = 27.914$$

$$t = \frac{\overline{X} - \overline{Y}}{s^2\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}$$

$$= \frac{27.76 - 26.51}{27.914\left(\frac{1}{5} + \frac{1}{5}\right)} = \frac{1.25}{11.166} = \frac{1.25}{3.34} = 0.37$$

APPENDIX – 28

T - Test Of Cost Effectiveness Measures

Personnel Expenses To Total Income Ratio

YEARS	NIBL			NSBIBL		
	X	**$x = X - \overline{X}$**	**x^2**	**Y**	**$y = Y - \overline{Y}$**	**y^2**
2059/60	10.61	(0.03)	0.01	5.96	(1.51)	2.29
2060/61	9.84	(0.80)	0.64	5.32	(2.15)	4.63
2061/62	8.51	(2.13)	4.55	5.23	(2.24)	5.03
2062/63	12.58	1.94	3.76	10.87	3.40	11.55
2063/64	11.67	1.03	1.06	9.98	2.51	6.29
∑	**53.21**		**10.01**	**37.36**		**29.78**

Here,

$$\overline{X} = \frac{\sum X}{n} = \frac{53.21}{5} = 10.64$$

$$\overline{Y} = \frac{\sum Y}{n} = \frac{37.36}{5} = 7.47$$

$$S^2 = \frac{1}{n1+n2-2}\left[\sum(X-\overline{X})^2 + \sum(Y-\overline{Y})^2\right]$$

$$= \frac{10.01 + 29.78}{5+5-2} = \frac{39.79}{8} = 4.974$$

$$t = \frac{\overline{X} - \overline{Y}}{\sqrt{s^2\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

$$= \frac{10.64 - 7.47}{\sqrt{4.974\left(\frac{1}{5} + \frac{1}{5}\right)}} = \frac{3.17}{1.990} = \frac{3.17}{1.41} = 2.25$$

APPENDIX – 29

T - Test Of Cost Effectiveness Measures

Other General Expenses To Total Operating Income Ratio

YEARS	NIBL			NSBIBL		
	X	**$x = X - \overline{X}$**	**x^2**	**Y**	**$y = Y - \overline{Y}$**	**y^2**
2059/60	7.29	0.67	0.44	4.35	(0.93)	0.86
2060/61	6.32	(0.30)	0.09	4.18	(1.10)	1.21
2061/62	5.84	(0.78)	0.61	4.21	(1.07)	1.14
2062/63	7.06	0.44	0.19	6.63	1.35	1.83
2063/64	6.61	(0.01)	0.01	7.02	1.74	3.03
∑	**33.12**		**1.35**	**26.39**		**8.07**

Here,

$$\overline{X} = \frac{\sum X}{n} = \frac{33.12}{5} = 6.62$$

$$\overline{Y} = \frac{\sum Y}{n} = \frac{26.39}{5} = 5.28$$

$$S^2 = \frac{1}{n1+n2-2}\left[\sum(X-\overline{X})^2 + \sum(Y-\overline{Y})^2\right]$$

$$= \frac{1.35 + 8.07}{5+5-2} = \frac{9.42}{8} = 1.178$$

$$t = \frac{\overline{X} - \overline{Y}}{\sqrt{s^2\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

$$= \frac{6.62 - 5.28}{\sqrt{1.178\left(\frac{1}{5} + \frac{1}{5}\right)}} = \frac{1.35}{0.471} = \frac{1.35}{0.67} = 2.01$$

APPENDIX – 30
T - Test Of Liquidity Ratio
Current Ratio

YEARS	NIBL			NSBIBL		
	X	$x = X - \overline{X}$	x^2	Y	$y = Y - \overline{Y}$	y^2
2059/60	0.31	(0.06)	0.01	0.36	0.00	0.00
2060/61	0.43	0.06	0.01	0.35	(0.01)	0.01
2061/62	0.35	(0.02)	0.01	0.35	(0.01)	0.01
2062/63	0.41	0.04	0.01	0.42	0.06	0.01
2063/64	0.37	0.00	0.00	0.32	(0.04)	0.01
∑	**1.87**		**0.04**	**1.80**		**0.04**

Here,

$$\overline{X} = \frac{\sum X}{n} = \frac{1.87}{5} = 0.37$$

$$\overline{Y} = \frac{\sum Y}{n} = \frac{1.80}{5} = 0.36$$

$$S^2 = \frac{1}{n1+n2-2}\left[\sum(X-\overline{X})^2 + \sum(Y-\overline{Y})^2\right]$$

$$= \frac{0.04 + 0.04}{5+5-2} = \frac{0.08}{8} = 0.01$$

$$t = \frac{\overline{X} - \overline{Y}}{\sqrt{s^2\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

$$= \frac{0.37 - 0.36}{\sqrt{0.01\left(\frac{1}{5} + \frac{1}{5}\right)}} = \frac{0.01}{0.004} = \frac{0.01}{0.063} = 0.16$$

APPENDIX – 31
T - Test Of Liquidity Ratio
Cash & Bank Balance To Total Deposit Ratio

YEARS	NIBL			NSBIBL		
	X	**$x = X - \overline{X}$**	**x^2**	**Y**	**$y = Y - \overline{Y}$**	**y^2**
2059/60	11.69	1.38	1.92	20.44	9.22	85.01
2060/61	10.65	0.34	0.12	12.01	0.79	0.62
2061/62	9.40	(0.91)	0.82	8.36	(2.86)	8.18
2062/63	11.03	0.72	0.52	7.91	(3.31)	10.96
2063/64	8.76	(1.55)	2.39	7.38	(3.84)	14.75
∑	**51.53**		**5.77**	**56.10**		**119.51**

Here,

$$\overline{X} = \frac{\sum X}{n} = \frac{51.53}{5} = 10.31$$

$$\overline{Y} = \frac{\sum Y}{n} = \frac{56.10}{5} = 11.22$$

$$S^2 = \frac{1}{n1+n2-2}\left[\sum(X-\overline{X})^2 + \sum(Y-\overline{Y})^2\right]$$

$$= \frac{5.77 + 119.51}{5+5-2} = \frac{125.28}{8} = 15.660$$

$$t = \frac{\overline{X} - \overline{Y}}{s^2\frac{1}{n_1} + \frac{1}{n_2}}$$

$$= \frac{10.31 - 11.22}{15.660\frac{1}{5} + \frac{1}{5}} = \frac{(0.91)}{6.264} = \frac{(0.91)}{2.50} = (0.37)$$

APPENDIX – *32*
T - Test Of Liquidity Ratio
Cash & Bank Balance To Current Assets

YEARS	NIBL			NSBIBL		
	X	**$x = X - \overline{X}$**	**x^2**	**Y**	**$y = Y - \overline{Y}$**	**y^2**
2059/60	34.67	8.42	70.90	52.48	24.05	578.59
2060/61	22.72	(3.53)	12.46	31.18	2.75	7.58
2061/62	24.75	(1.50)	2.25	20.95	(7.48)	55.89
2062/63	26.07	(0.18)	0.03	17.09	(11.34)	128.50
2063/64	23.04	(3.21)	10.30	20.43	(8.00)	63.94
∑	**131.25**		**95.94**	**142.13**		**834.51**

Here,

$$\overline{X} = \frac{\sum X}{n} = \frac{131.25}{5} = 26.25$$

$$\overline{Y} = \frac{\sum Y}{n} = \frac{142.13}{5} = 28.43$$

$$S^2 = \frac{1}{n1+n2-2}\left[\sum(X-\overline{X})^2 + \sum(Y-\overline{Y})^2\right]$$

$$= \frac{95.94 + 834.51}{5+5-2} = \frac{930.45}{8} = 116.307$$

$$t = \frac{\overline{X} - \overline{Y}}{\sqrt{s^2\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

$$= \frac{26.25 - 28.43}{\sqrt{116.307\left(\frac{1}{5} + \frac{1}{5}\right)}} = \frac{(2.18)}{\sqrt{46.523}} = \frac{(2.18)}{6.82} = (0.32)$$

APPENDIX – *33*
T - Test Of Liquidity Ratio
Loan & Advance To Current Assets

YEARS	NIBL			NSBIBL		
	X	**$x = X - \overline{X}$**	**x^2**	**Y**	**$y = Y - \overline{Y}$**	**y^2**
2059/60	216.04	39.98	1598.72	175.87	(8.13)	66.13
2060/61	132.05	(44.01)	1936.53	185.56	1.56	2.43
2061/62	187.01	10.95	119.99	179.87	(4.13)	17.07
2062/63	159.51	(16.55)	273.77	149.77	(34.23)	1171.83
2063/64	185.67	9.61	92.43	228.94	44.94	2019.42
∑	**880.28**		**4021.44**	**920.01**		**3276.88**

Here,

$$\overline{X} = \frac{\sum X}{n} = \frac{880.28}{5} = 176.06$$

$$\overline{Y} = \frac{\sum Y}{n} = \frac{920.01}{5} = 184.00$$

$$S^2 = \frac{1}{n1+n2-2}\left[\sum(X-\overline{X})^2 + \sum(Y-\overline{Y})^2\right]$$

$$= \frac{4021.44 + 3276.88}{5+5-2} = \frac{7298.32}{8} = 912.290$$

$$t = \frac{\overline{X} - \overline{Y}}{\sqrt{s^2\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

$$= \frac{176.06 - 184.00}{\sqrt{912.29\left(\frac{1}{5} + \frac{1}{5}\right)}} = \frac{(7.95)}{\sqrt{364.916}} = \frac{(7.95)}{19.10} = (0.42)$$

APPENDIX – 34
T - Test Of Liquidity Ratio
Investment In Government Securities To Current Assets

YEARS	NIBL			NSBIBL		
	X	**$x = X - \overline{X}$**	**x^2**	**Y**	**$y = Y - \overline{Y}$**	**y^2**
2059/60	14.97	(15.92)	253.57	46.81	(16.63)	276.42
2060/61	37.06	6.17	38.02	68.16	4.72	22.32
2061/62	35.98	5.09	25.87	74.92	11.48	131.88
2062/63	31.49	0.60	0.36	70.53	7.09	50.32
2063/64	34.97	(1.01)	1.02	56.76	(6.68)	44.57
∑	**154.47**		**318.84**	**317.18**		**525.52**

Here,

$$\overline{X} = \frac{\sum X}{n} = \frac{154.47}{5} = 30.89$$

$$\overline{Y} = \frac{\sum Y}{n} = \frac{317.18}{5} = 63.44$$

$$S^2 = \frac{1}{n1+n2-2}\left[\sum(X-\overline{X})^2 + \sum(Y-\overline{Y})^2\right]$$

$$= \frac{318.84 + 525.52}{5+5-2} = \frac{844.35}{8} = 105.544$$

$$t = \frac{\overline{X} - \overline{Y}}{s^2\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}$$

$$= \frac{30.89 - 63.44}{105.544\left(\frac{1}{5} + \frac{1}{5}\right)} = \frac{(32.54)}{42.218} = \frac{(32.54)}{6.50} = (5.01)$$

APPENDIX – *35*
T - Test Of Liquidity Ratio
Fixed Deposit To Total Deposits

YEARS	NIBL			NSBIBL		
	X	**$x = X - \overline{X}$**	**x^2**	**Y**	**$y = Y - \overline{Y}$**	**y^2**
2059/60	21.11	(3.46)	11.94	68.50	(4.24)	17.99
2060/61	19.91	(4.66)	21.68	71.45	(1.29)	1.67
2061/62	22.53	(2.04)	4.15	71.79	(0.95)	0.91
2062/63	28.59	4.02	16.19	69.32	(3.42)	11.71
2063/64	30.69	6.12	37.50	82.65	9.91	98.17
$\sum$	**122.83**		**91.46**	**363.71**		**130.45**

Here,

$$\overline{X} = \frac{\sum X}{n} = \frac{122.83}{5} = 24.57$$

$$\overline{Y} = \frac{\sum Y}{n} = \frac{363.71}{5} = 72.74$$

$$S^2 = \frac{1}{n1+n2-2}\left[\sum(X-\overline{X})^2 + \sum(Y-\overline{Y})^2\right]$$

$$= \frac{91.46 + 130.45}{5+5-2} = \frac{221.91}{8} = 27.739$$

$$t = \frac{\overline{X} - \overline{Y}}{\sqrt{s^2\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

$$= \frac{24.57 - 72.74}{\sqrt{27.739\left(\frac{1}{5} + \frac{1}{5}\right)}} = \frac{(48.18)}{\sqrt{11.096}} = \frac{(32.54)}{3.33} = (14.47)$$

APPENDIX – *36*
T - Test Of Liquidity Ratio
Saving Deposit To Total Deposits

YEARS	NIBL			NSBIBL		
	X	**$x = X - \overline{X}$**	**x^2**	**Y**	**$y = Y - \overline{Y}$**	**y^2**
2059/60	30.72	(10.62)	112.78	25.03	(2.20)	4.85
2060/61	42.40	1.06	1.12	28.38	1.15	1.32
2061/62	47.02	5.68	32.26	28.40	1.17	1.36
2062/63	42.70	1.36	1.85	25.74	(1.49)	2.23
2063/64	43.86	2.52	6.35	28.61	0.21	0.01
$\sum$	**206.70**		**154.37**	**136.16**		**9.80**

Here,

$$\overline{X} = \frac{\sum X}{n} = \frac{206.70}{5} = 41.34$$

$$\overline{Y} = \frac{\sum Y}{n} = \frac{136.16}{5} = 27.23$$

$$S^2 = \frac{1}{n1+n2-2}\left[\sum(X-\overline{X})^2 + \sum(Y-\overline{Y})^2\right]$$

$$= \frac{154.37 + 9.80}{5+5-2} = \frac{164.17}{8} = 20.521$$

$$t = \frac{\overline{X} - \overline{Y}}{s^2\ \frac{1}{n_1} + \frac{1}{n_2}}$$

$$= \frac{41.34 - 27.23}{20.521\ \frac{1}{5} + \frac{1}{5}} = \frac{14.11}{8.209} = \frac{14.11}{2.87} = 4.92$$