

**COMPARATIVE STUDY ON FINANCIAL PERFORMANCE OF
NEPAL INVESTMENT BANK LTD. AND STANDARD CHARTERED
BANK NEPAL LTD.**

A Thesis

Submitted by:

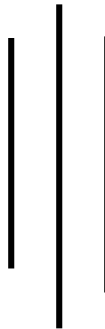
Parashuram Paudel

Post Graduate Campus

T.U, Regd. No. 45794-88

Symbol No.: 40335

Campus Roll. No. 102/2063



Submitted to:

Office of Dean

Faculty of Management

Tribhuvan University

**In Partial fulfillment of the requirement of the degree of Master of
Business Studies (M.B.S.)**

Biratnagar, Morang

April, 2013



TRIBHUVAN UNIVERSITY
POST GRADUATE CAMPUS
Biratnagar, Nepal

Ref. No. :-

Tel. No. : 021-526327/522204

Date:

RECOMMENDATION

This is to certify that the thesis

Submitted By:

Parashuram Paudel

Entitled:

**COMPARATIVE STUDY ON FINANCIAL PERFORMANCE OF
NEPAL INVESTMENT BANK LTD. AND STANDERD
CHARTERED BANK NEPAL LTD.**

*Has been prepared as approved by this Department in the prescribed format of Faculty of
Management. This thesis is forwarded for examination.*

Supervisor

Head of Department

Signature: _____

Signature: _____

(Mr. Ram Prakash Upadhyay)

(Prof. Dr. Yadav Raj Koirala)

Campus Chief

Signature: _____

(Mr. Ballav Prasad Paudel)

Date:



TRIBHUVAN UNIVERSITY
POST GRADUATE CAMPUS
Biratnagar, Nepal

Ref. No. :-

Tel. No. : 021-526327/522204

Date:

VIVA – VOCE SHEET

We have conducted the Viva-Voce Examination of the thesis

Submitted by:

Parashuram Paudel

Entitled

**COMPARATIVE STUDY ON FINANCIAL PERFORMANCE OF
NEPAL INVESTMENT BANK LTD. AND STANDERD
CHARTERED BANK NEPAL LTD.**

*and found the thesis to be the original work of the student and written
according to the prescribed format. We recommend the thesis to be accepted
as partial fulfillment of the requirements for*

Master's Degree in Business Studies (M.B.S.)

Viva-Voce Committee

Head, Research Department:
(Prof. Dr. Yadav Raj Koirala)

Member (Thesis Supervisor)
(Mr. Ram Prakash Upadhyay)

Member (External Expert)

Date:

DECLARATION

I hereby declare that the work reported in this thesis entitled “An Analytical and Comparative Study on Financial Performance of Nepal Investment Bank Limited and Standard Chartered Bank Nepal Limited “submitted to post Graduate Campus, Faculty of management, Tribhuvan University, is my original work done in the form of partial Fulfillment of the Requirement of the Master’s Degree of Business Study under the supervision of Mr. Ram Prakash Upadhyay.

Date:

Parashuram Paudel

T.U.Registeation No. 45794-88

ACKNOWLEDGEMENTS

I would like to express heartiest gratitude to my thesis advisor Mr. Ram Prakash Upadhyay Post Graduatee Campus for his continuous suggestion and support in making this thesis.

I am thankful to Dr. Yadav Raj Koirala, Associate professor. Head and Research Department, Post Graduate Campus for providing necessary ideas.

Similarly, I must acknowledgement to Post Graduate Campus and Central Library of T.U. for providing necessary books and documents.

Date

.....

Parashuram Paudel

Table of Contents

Title	Page No.
Viva voce sheet	
Recommendation	
Declaration	
Acknowledgement	
Table of contents	
List of table	
List of figure	
Abbreviations	

CHAPTER – 1

Introduction	1-10
1.1 Background of the study	1
1.1.1 Origin of Banking in Nepal	2
1.1.2 Introduction of Nepal investment Bank	3
1.1.3 Introduction of Standard Chartered Bank Limited	5
1.1.4 Function of commercial Bank	6
1.2 Statement of Problem	7
1.3 Objectives of the study	7
1.4 Significant of the study	8
1.5 Limitation of the study	8
1.6 Research Methodology	9
1.6.1 Research Design	9
1.6.2 Population and sample	9
1.6.3 Sources of data	9
1.6.4 Data collection techniques	9

1.6.5 Data analysis	10
1.7 Organization of the Study	10

CHAPTER – 2

Review of literature	11-26
2.1 Conceptual Frame Work	11
2.1.1 Review of related studies	11
2.1.2 Significance of financial Analysis	13
2.1.3 Types of Ratio Analysis	15
2.2 Review of journals	18
2.3 Review of Article	20
2.4 Review of Thesis	21
2.5 Research Gap	26

CHAPTER – 3

Research Methodology	27-40
3.1 Research Design	27
3.2 Population and sample	27
3.3 Source of Data	27
3.4 Data collection Techniques	28
3.5 Data Analysis Techniques	28
3.5.1 Financial Tools	28
3.6.1 Ratio Analysis	28
3.6.1.1.Liquidity Ratio	28
3.6.1.2 Assets management Ratio (Activity Ratio)	30
3.6.1.3 Profitability Ratio	31
3.6.1.4 Leverage Ratios	33

3.6.1.5 Capital Adequacy Ratio	34
3.6.2 Statistical Tools	34
3.6.2.1 Arithmetic mean	35
3.6.2.2 Standard Deviation	35
3.6.2.3 Coefficient of variation	35
3.6.2.4 Correlation Analysis	36
3.6.2.5 Probable error of the coefficient of correlation	36
3.6.2.6 Coefficient of Determination	37
3.6.2.7 Trend Analysis	37
3.6.2.8 Regression Analysis	39
3.6.2.9 Testing of Hypothesis	39

Chapter-4

Data Presentation and Analysis	41-76
4.1 Ratio Analysis	41
4.1.1 Liquidity Ratios	41
4.1.2 Leverage ratio or capital structure ratio	46
4.1.3 Activity ratios or assets and investment management ratio	48
4.1.4 Profitability ratio	53
4.1.5 Capital /Adequacy ratio	59
4.2 Statistical Analysis	61
4.2.1 Coefficient of correlation analysis	61
4.2.1.1 Correlation between total deposit and loans advance	61
4.2.1.2 Correlation between total deposit and investment	62
4.2.1.3 Correlation between loan & advance Net profit	64

4.2.2 Trend analysis	65
4.2.2.1 Trend analysis of total deposit	65
4.2.2.2 Trend analysis of loan & advances	65
4.2.2.3 Trend analysis of Total investment	68
4.2.3 Simple Regression analysis	69
4.2.3.1 Regression analysis between net profit & total deposit	69
4.2.3.2 Regression analysis between net profit & loan & advance	70
4.2.3.3 Regression analysis between net profit & investment	71
4.3 Major finding of the study	72

CHAPTER – 5

Summary ,conclusion and Recommendations	77-82
5.1 Summary	77
5.2 Conclusion	79
5.3 Recommendations	80

Bibliography

Annex

List of Tables

S.N	Table No.	Title	Page
1	4.1	Current Ratio	42
2	4.2	Cash and Bank Balance to Total Deposit Ratio Cash and Bank Balance to Current Assets Ratio	43
3	4.3	Loan and Advance to Current Assets Ratio	44
4	4.4	Debt-Equity Ratio Debt –Assets Ratio	45
5	4.5	Loan and Advance to Deposit Ratio	47
6	4.6	Loan and Advance to Total Assets Ratio Long term Investment to Total Deposit Ratio	48
7	4.7	Performing Assets to Total Debt Ratio	49
8	4.8	Personnel Expenses to Total Income Ratio Net Profit to Total Deposit Ratio	50
9	4.9	Net Profit to Total Assets Ratio	51
10	4.10	Return on Net Worth Total Interest Earned to Total Assets Ratio	52
11	4.11	Total Interest Paid to Total Assets Ratio	53
12	4.12	Return on Capital Employed Ratio Shareholder's Fund to Total Deposit Ratio	54
13	4.13	Shareholder's Fund Ratio	55
14	4.14	Correlation between Total Deposits and Loan and advances. Correlation between Total Deposit and Investment	56
15	4.15	Correlation between Loan and Advances and Net Profit	57
16	4.16	Trend Analysis of Total Deposit Trend Analysis of Loan & Advance	58
17	4.17	Trend Analysis of Total Investment	59
18	4.18	Regression analysis between net profit and total deposit. Regression analysis between net profit and loan and advance	60
19	4.19	Regression analysis between net profit and investment	61
20	4.20		62
21	4.21		63

22	4.22		64
23	4.23		66
24	4.24		67
25	4.25		68
26	4.26		70
27	4.27		71
28	4.28		71

ABBREVIATIONS

A.D.	Anno Domin
NIBL	Nepal Investment Bank Limited
B.S.	Bikram Sambat
SCBNL	Standard Chartered Bank Nepal Limited
CB	Commercial Banks
SD	Standard Deviation
CV	Coefficient of Variation
CRR	Cash Reserve Ratio
DPS	Dividend Per Share
ETC	Etcetera
FY	Fiscal Year
GDP	Gross Domestic Product
i.e.	That is
IFIC	International Finance Investment and Commercial Bank Limited
JVB	Joint venture Bank
Ltd	Limited
M/B	Market to book
MVPS	Market value per Share
NRB	Nepal Rastra Bank Limited
PE	Probable error
PP	Pages
P	Page
RBB	Rastiya Banijya Bank
ROA	Return on Assets
T.U.	Tribhuvan University
USD	United State Dollar

LIST OF FIGURES

S.N	Figure No.	Title	Page
1	1	Trend analysis of total deposit	66
2	2	Trend analysis of Loan and advances	67
3	3	Trend analysis of Total investment	69

Chapter -1

Introduction

1.1 Background of the study

Nepal is bordering between the two most populous countries of the world . India in the east, south ,west and China in the north. Nepal is developing country. Nepal is not being able to develop its economic condition due to various factors like political, technological, socio-cultural environment of the country. Nepal is landlocked country so it is deprived from the access to sea which is very essential for trade the foreign country as sea transportation is considered as cheapest sources of transportation. Not only this much that it has few amount if resources which are not utilized properly due to poor policies of government and lack of sufficient capital fund.

Economic development of the Nepal is not possible without development of agriculture because agriculture is major occupation of the almost Nepalese people. So agriculture is the backbone of the Nepalese economy. Agriculture sector provides employment more than 74 percent labor force and contributes over 35 percent of the total gross domestic product. Industrialization is an important tools to achieving the basic objective of country's economic and social development. Industrialization not only provides product and services to the community but also create employment opportunity in nation. It facilities an effective mobilization of resources of capital and skill, which might otherwise remain unutilized. It helps to innovation and technological improvement.

Bank is general means an institutions that deals with money. Concept of banking had developed from ancient history as with the effort of ancient goldsmith who practiced storing people's gold and word "Benque". Bank plays the vital role for domestic resources mobilization and economic development of the country. Origin of the traditional banking is traced bank to the Babylonians and Athenians period but the first modern banks are the bank Venice(1171), are the bank of Geneva(1320) and the bank of Amstordam(1609). Banking industries can be considered as the catalyst to the economic growth of a country. It transfer the scattered fund collected from saving of the public in to various productive sectors. Economic activities remains halt in absences of banking industries. It helps to enhance

economic activities of the country by providing capital funds for the smooth operation of business activities, create employment opportunity, investing agriculture industries. At present there are thirty two commercial banks operation in the country among which Nepal Investment Bank Limited and Standard Chartered Bank Nepal Limited has occupied wide range of the business due to access to most of the corner of the country. There are cut-through competition in the banking sectors of providing their service to the customer. Due to increasing competition banks are forced to innovate new products to their customer and they are also shifting from traditional service procedure to various sophisticated service like Automatic Teller Machine (ATM), Debit Card, Credit Card, Housing loan , Educational loan, Vehicle financing.

People deposit their saving in trust of banks repay their deposits promptly when they demand for it. If one banks fails to repay the deposited amount to the public then their will be run in the banks and it deals to insolvency of the banks. So as the regular supervisor and inspector Nepal Rastra Bank Limited always dictate the activities of the in the country. It chances to have fair competition between the banks and to safe guards the deposits of the public. To depict the performance of any financial analysis is essential, past performance often a good indicators of future performance. Therefore all parties are interested to know the trend of past variable such as sales, expenses, net income, cash flow and return on investment and so on. Financial analysis is the process of critical judgment of detail accounting information given in the financial statements.

Financial analysis is the process of determining the significant operation and financial characteristics of a firm from accounting data. It shows the relationship between the various components, which can be fund in balance sheet and profit and loss statement contain those information which is useful for management, shareholders, creditors, investors, depositors etc.

1.1.1 Origin of the Banking in Nepal

The concept of banking in Nepal dates back more than sixty years. In 1994BS first commercial banks,Nepal bank limited was established under the ‘ banking Act,1993’. The government provided 61%equity of the bank and the promoter shares the rest Nepal Rastra Bank, the central bank emerged in 2013BS under ‘Rastra Bank Act,2012BS’. Since then, it was been providing policies and guideline to the banking sectors in one hands and on the

other hand, it is monitoring and controlling them. After realizing the need of adequate banking service for the integrated and speedy development of industrial sectors. Rastriya Banijya Bank came into existence in 2022BS with 100% government equity. After the establishment of Agricultural Development Bank in 2024Bs, growth of banking institutions remained almost stagnant till 2040Bs. No new banks opened in this period though some branches of previously established banks were extended. Liberalization policy of government formulated in 2038Bs allowed private sectors to open joint venture bank limited becomes the first commercial bank to register under new arrangement. The bank started its operation since 2041Bs. It is an associate of Dubai Bank Limited, UAE and Nepalese promoters. Nepal Indosuez Bank Limited and Grind Lays Bank Limited were other joint venture banks established afterward.

After restoration of multiparty democracy in the country, the government formulated new policies along with amendment of existing policies. So as to accelerate the process of economic liberalization and globalization. As a consequence, other six joint venture banks came into existence. Nepal Banks of Ceylon Limited has been the youngest one till now. There are 32 commercial banks in the country as on 2011. Those banks attempted to introduce foreign management skills, technical know-how and foreign capital. This situation created an environment of healthy competition among the existing financial institutions. The present study focused on the analytical and comparative study on financial performance of Nepal Investment Bank Limited and Standard Chartered Bank Nepal Limited.

1.1.2 Introduction of Nepal Investment Bank Limited

There are many commercial banks established in Nepal's banking sectors. Nepal Investment Bank Limited is previously known as Nepal Indosuez Bank Limited, the second joint venture bank in Nepal was established in 1986. It was established in the collaboration with Banques Indosuez Paris with 50% shareholding and Nepalese financial institutions. But overall management used to be handled by foreign counterpart.

The bank has 41 branches. The bank witnessed encouraging recognition from the market of the new name and management. Bank has been able to enhance its services to its customers by providing them extended banking hours and keeping the open for 365 days. The products of the bank's vehicle financing, Ezee saving scheme and locker services, received favorable responses from the market. Bank has been awarded "Bank of the year

2003”, “Bank of the year 2005”, Bank of the year 2008” by the London based financial Times Groups. The banker, making it the first all Nepal managed bank ever to received the award. The bank was selected for those honors because it meets the stringent criteria set by the Banker. The award is based on the growth and performance in terms of capital, assets, and return on equity and management quality.

It was judged as the best bank in Nepal by The Bankers editorial team which consists of high profile senior business and banking figures. The bank has implemented its own financial switch system which provided online transactions from different delivery channels such as ATM,POS terminals. The bank set another milestone in introducing updated technology by launching and international “VISA ELECTRON DEBIT CARD” the first of its kind in Nepal. Which will provide convenient banking to customers. The card will also give easy access to cash at the bank’s ATMs as well as at other bank’s ATMs and payment at merchant establishment having POS terminals. The bank is also launching VISA card and E-banking and mobile banking facilities.

As at 2011, the member of staff increased to 877 out of which 359 are female staffs. Staff having completed more than 10 years of service are continuous to provide job related training, both in house and externally to improve the skills and knowledge of staff. At present, there is no foreign investment in it. All the share are owned by the Nepalese shareholders. 50% of the capital is held by group of company.

15% of the capital is held by Rastriya Banijya Bank Limited.

15% of the capital is held by Rastriya Beema Sansthan.

20% of the capital is held by general public

1.1.3 Introduction of Standard Chartered Bank Nepal Limited.

Standard Chartered Bank Nepal Limited has been in operation in Nepal since 1987 when it was initially registered as a joint venture operation. The bank enjoys the status of the largest international banks currently operating in Nepal. Standard Chartered Bank Nepal Limited has a history of over 150 years in banking and operation in many of the world’s fastest-growing market with an extensive global network of over 1750 branches (including subsidiaries, associated and joint venture) in over 70 countries in the Asia Pacific Region, South Asia, the middle East, Africa, the United Kingdom and the Americas. As at 2011, the member of staff is more than 429 Standard Chartered Bank Nepal Limited in a position to serve its customer through an extensive domestic network. In addition, the global network of

Standard Chartered group gives the bank a unique opportunity to provide truly international banking service in Nepal.

Corporate social responsibility is an integral parts of Standard Chartered's ambition to become the world's best international bank and is the mainstay of the bank's value. The bank believes in delivering shareholders values in a society, ethically an environmentally responsible manner. Standard Chartered throughout its long history has played an active role in supporting these community in which its customer and staff live. It concentrates on projects that assist children, particularly in the area of health and education. Environmental projects are also occasionally considered. It supports non-governmental organization involving charitable community activities. The group lunched two major initiatives in 2003 under its 'Believing in Life' campaign-'Living with HIV/AIDS' and "Seeing is Believing". Bank has been awarded "Bank of the year 2012".

Shareholders of the Standard Chartered Bank Nepal Limited are as follows;

75% of the capital is held by company.

25% of the capital is held by Nepalese public.

1.1.4 Function of commercial bank.

Receiving deposit and giving loans are two main function of commercial banks.

Commercial banks generally perform following function.

-) **Accepting Deposit:-** Accepting deposit by bank is the basic and most important function. A bank accepting deposit in three form namely saving, current, fixed deposit for gaining loan and advance, as it is aware of the repayment of such fixed deposit.
-) **Extension of credit:-** They are extending credit to the worthy borrowers, and lending contributes a lot to the economy in terms of financing agricultural, commercial and industrial activities of the nation .
-) **Facilities for the financing a foreign trade:-** The commercial banks arrange for foreign

exchanges required by business organization and travelers ,more over ,foreign trade transaction have been facilitating by the issuance of commercial letter of credit.

) **Advancing loans:-**

After collecting money by way of deposits, a bank invests it or lends it out .Money is lent to business persons and traders usually for short period only .This is so because the bank must keep it-self ready to meet the demand of the depositors.

) **Creating money:-**

As per the directive of the central bank ,commercial bank should have ability to create and dispose money .The power of the commercial banking system to create money is a great economic significance as it help to create and elastic credit system that is necessary for the economic prefers.

) **Payment Mechanism :-**

Commercial banks performs this function to transfer the fund by means of cheque ,and credit card facilities and efficient transactions.

) **Safe Deposit :-**

Banks arrange for the safekeeping of ornaments, jewelry, and securities important documents etc of it customers in secure vaults.

) **Agency function :-**

The bank works as an agent of their constituents .They receive payment on their behalf. They collected rent , dividend on shares etc. They pay insurance premium and make other payment of instructed by their depositors. They accepts bills of exchange on behalf of their customers. They pass bill of lading or railway receipts to the purchase of goods when they pay for them. This amount is passed on to the suppliers of goods.

Besides all these facilities, in case of commercial banks they issue credit card, and arrangement for issue of visa international card. Some them have priority to lend educated and unemployed youth to small project.

1.2 Statement of the Problem

The major problem in almost all under development countries is capital formation and proper utilization. Various commercial bank have played vital role accepting deposits and providing different types of loan .The development of the country directly related to the volume of investment in productive sectors , which is also obtained from commercial banks.

Most of commercial banks has not made profit and created value and there are aggressive competition between the bank in terms of services and interest etc . Banking institutions are can not always predict that those banks will continue maintain profitability and stability of earning . Thus the management of bank should evaluate financial performance of the bank to prepare the sound financial policy.

Ratio analysis is a analytical tool for evaluating the financial performances. It is also a process of determining and interpreting numerical relationship with the help of financial statement. Financial analysis satisfies the interest of common stocks holders, investors, creditors and management of the bank .so the it has faced various problems which are as follows:

What level of ratio has to maintain by bank?

Why recruitment of professionals is not transparent and fair?

To what extents those banks are able to raise and maintain their profitability?

How far is the current political and economic situation of the country affecting the performance at the sample banks?

Do financial ratios indicate any strength and weakness of the bank?

1.3 Objectives of the Study

The main objective of the study is to analyze, examine and interpreted financial performance of Nepal Investment Bank Ltd. and Standard chartered bank Ltd. with the help of ratio analysis and other portfolios. In addition the study tries to evaluate the efficiencies and progress of the sample banks comparatively .The main objectives related to this study are presented below:

To analyze the comparison of financial performances of Nepal Investment Bank Ltd. And Standard Chartered Bank Ltd.

To analyze the financial strength and weakness of the sample bank.

To analyze the different types of risk associated with the bank.

To suggest and recommend some measures for improvement of performance of the Nepal Investment Bank ltd. And Standard Chartered bank ltd.

1.4 Significance of the Study

First of all, it is the fact that this study is undertaken to apply the theoretical concepts and knowledge of Financial/Accounting management in to the practical field as a partial

fulfillment of the requirement of Masters of Business Studies (MBS) under Faculty of Management, Tribhuvan University.

The banking sectors is one of the most major sectors of the country to develop the economic status of the nation . Without proper mobilization and utilization of resources , can not get the target goal by the bank. Fund mobilizing activities of the banks greatly effect the growth and earning of bank .Effective ,stable appropriate uses of funds policy make cause the earning of sufficient return to the bank .Now a days , banking sectors has provided different facilities such as any branch banking service, internet banking, SMS banking ,ATM and tele-banking ,small business enterprises loan ,L/C etc. Those all facilities including other temporary facility has made people life very convenience and easy.

1.5 Limitations of the Study

Each study is conducted under some constraints and limitations. Some of the limitations are as follows:

The study will based on secondary data and accuracy depends upon the data collected and provided by the organization.

Time and workforce are also the limiting factors in undertaking this study .

The study will cover only five fiscal year(2007/08 to 2011/12) are only considered.

This study has been only of two bank as sample :Nepal Investment Bank Ltd.and Standard Chartered bank Limited

The study is affected by financial resources of the students.

This study would only concern with fulfilling in partial requirement in Masters of Business Studies (MBS).

1.6 Research Methodology

Research design is a plane for collecting and analyzing to answer whatever question has posed. The design of investigator touches almost all aspects of the research, from the minute details of data collection to the selection of the techniques of data analysis.

1.6.1 Research Design:

The research design is a plan and strategy to attained the answer of the research question through the analysis of collected data and information . This study is based on recent five year historical data from fiscal year (2007/08 to 2011/12). The study concentrated on the study of evaluating financial performance of the sample bank. Data are

mostly secondary .Their fore as per the nature of the study analytical and descriptive research design has been applied .

1.6.2 Population and Sample

There are all together 32 commercial banks are operating in Nepal . All the listed bank are the population of this study. It is impossible to study all of them so two commercial bank has been selected for the analysis among them on the basis of reputation of the bank . Among all the banks which are presented above only two bank are taken as a sample for comparative study. They are :

1. Nepal Investment Bank Ltd.
2. Standard Chartered Bank Ltd.

1.6.3 Sources of Data

The study is based on secondary data . Secondary data have been collected through various published annual reports of banks, economic survey, NEPSE, different journal, magazines ,websites ,booklets and other document .

1.6.4 Data collection Technique

The researcher himself visited the different libraries, concerned companies, magazines and other useful Places and collected related publication and periodicals. Official websites were search in order to collects required information.

1.6.5 Data Analysis Tools

Under this study, financial as well as statistical tools have been used to analyze the data and information.

1.7 Organizing of the Study

This thesis study has been designed in to five chapters which are as follows.

Chapter -1 Introduction : This chapter covers the background of the study, significance of the study, objectives of the study, statement of the problem and limitation of the study.

Chapter-2 Review of Literature: This chapter has include two main aspects:

1. Conceptual framework
2. Review of elated studies include review of thesis, books, articles and reports with finding and recommendations.

Chapter-3 Research Methodology: This chapter deals with research methodology to be adopted for study consisting introduction , research design, population and sample, sources of data, collection procedure of data analysis and uses of tools for analysis.

Chapter-4 Presentation and Analysis of Data : This chapter concern with systematic presentation, analysis and interpretation of data where various financial and statistical tools and techniques has been used. This chapter also focuses open –end options and master finding of the research.

Chapter-5 Summary, Conclusion and Recommendations: The final chapter has develop to summarize the whole study and conclusion will be drawn based on the major finding, recommendations have also presented.

Chapter-2

Review of Literature

A Literature review is a body of text that aims to review the critical point of current knowledge on a particular topic .In this chapter we find what kind of study has been done before to the related topic . What kind of conclusion and finding has made before . We can compare and make better the topic by further more research and find major findings . The financial performance analysis has been done but comparison study is done very few so the study will be helpful to know the NIBL and SCBNL financial position and their major differences . The study sources are books,journals report and website etc.

According to wolf & pant " The purpose of the reviewing the literature is to develop some expertise in one's area to see what new contribution can be made and to review some idea for Developing research design (pant and wolf 1996 : 31-44) The chapter is categorized under there main heading .

Conceptual frame work is concern with fundamental of supportive text that will ensure the interpretation whether it is under the principles and doctrine to the theories related to the topic . Review of related studies is about the studies is about the studies of previous thesis , related books and previous researches in similar topics . The last is research gaps which will describe the different between the previous thesis and current thesis . The purpose of the literature review are as follows :

-) To define and limit the problem worrying on
-) To a valued un necessary duplication
-) To place the study in an historical perspective
-) To evaluate promising research methods
-) To relate the findings to previous knowledge and suggest further research .

2.1 Conceptual Frame work :

2.1.1 Review of Related Studies :

Financial Analysis is an evaluation of both firms past financial performance and its prospectus for the future .Financial statement analysis involves the calculation of various ratios . In mathematics a ration is the relationship between quantitative figure . The ratio analysis is the financial tool by which the financial strength and weakness are measured by relating two accounting data .

The relationship between two accounting figure ,expressed Mathematically is known as ratio . In financial analysis a ratio is used as an index for evaluation the financial position and performance of a firm .Every business organization is established with view of earning the profit . Bank is also established with objectives of Maximizing the profit . Profit is necessary for long term existence of any business . An investor always invests in that area where profit can be maximized . Financial statement is the indicator of business performance that whether business is profitable or not . Therefore financial analysis reflects the financial position of a firm,which is the process of a firm which is the process of determining the operational and financial characteristics of a firm . Financial statement analysis is helpful to decision maker for finding out favorable or unfavorable situation of a business firm . Financial performance is the main indicator of success or failure of the business firm .

"Financial performance analysis is a study or relationship among the various financial factor in business a disclosed by a single set of statement and a study of the trend of these fact as shown in a series of statements . By establishing a strategic relationship between the item of a balance sheet and income statements and other operative data the financial analysis unveils the meaning and signification of such items " .

(B.N.Ahuja 1998)

"Financial performance analysis is a process of evaluating the relationship between components parts of a financial statement to obtain a better understanding of a firm's position and performance "

(R.W.Metcalf &P.H.Tata (1990)

Financial analysis is the process of determining financial strengths and weakness analysis of company by establishing strategic relationship between the components of analysis balance sheet and operative data .

(Panday I.M 1994:96)

"Financial analysis is a process of identifying the financial strength and weakness of the firm by property establishing relationship between the items of the balance sheet which represents analysis snapshot of the firm's financial position analysis at analysis moment in time and next income statement that depots analysis summary of the firm's profitability overtime. (Vanhorn,J.C & Watchowch J.M 1997:120)

" It is the process of determining the significant operating and financial statements . The goal of such analysis is to determining the efficiency and performance of the firm's management ,as reflected in the financial records and reports ."

(Helfert E.A. 1992:2)

According to pradhan,S., " Financial analysis is to analyze the achieved statements to see if the result meets the objectives of the firm ,to identity problem ,if any in the past or present and or likely to be in the future and to provide recommendation to solve the problems ."

(Pradhan S,2000:120)

Thus, financial analysis stands for the process of determining and presenting the relationship of items and groups of items in the financial stability and health of concern can be judged .

2.1.2 Significance of Financial Analysis :

Significance of analysis lies on the objectives of financial analysis of any business firm The facts and relationship concerning managerial performance ,corporate efficiency ,financial strength and weakness and credit worthiness are interpreted based on objective in the hand such an analysis leads management of an enterprises to take critical decisions regarding operative policies, investment value of the firm, inter financial control system and bargaining strategy for funds from extremely sources .

(Agrawal ,1993,p.582)

The importance of financial analysis is as Useful in analysis of Financial Position : As it is analysis of financial statement of company ,it can be said that it becomes very useful to banks, insurance companies ,the potential investor or existing shareholder of the company

Useful in simplifying accounting Figures : As it is tools of analysis and it just establish the relationship between two or more than two relative figure, user can get easily approach to get understanding throughout the figure, otherwise the user can be confused and can not decide the actual figure what he needs and the figure also useless unless it is compared with another related figures .

Useful in assessing the operational efficiency : It will be quiet useful when operating efficiency are to be measured and compared with earlier records, or standard records or with competitors records and the same can be applied only through use of ratio analysis :

Useful in forecasting purpose : If the company carries the ratio from earlier accounting period , it will establish a trend to see every transaction in paint of view of ratio that will guide to make future plan & policies and forecast the future requirement .

Useful in locating the weak spots of the business : As the ratio analysis studies the financial statement through different and small segment it will be easy to find out the weak point of business

Useful in Comparison of Performance : As the ratio deals with weak spot of the business on the similar way it evaluates the department with better performance also .

Useful for decision in Making Classification of ratio :

1. Liquidity ratio
2. Capital structure ratios (Average ratio)
3. Activity ratios
4. Profitability ratios

The parties that are benefited by the results drawn from the analysis of financial performance can be enumerated as :

- a. Top Management
- b. Economist
- c. Creditors
- d. Shareholders
- e. Labor union

) **Top Managements** : Base on past facts firm can anticipate their future . Hence top management can measure the success or otherwise of a company's operations, determine the relative efficiency or various departments : process and product appraise the individuals performance and evaluate the system of internal audit .

) **Economist** : The diagnose the prevailing status of business and economy, Economist analyze the financial statements of any firm . The government agencies analyze them for the purpose of price regulation rate gating and similar purpose .

) **Creditor** : The creditor can find out the financial strengths and capacity at the borrower to meet their claims . Trade creditor are interested in the firm's ability to meet their claims over a short span of time ,the suppliers of long term debt focus upon the firms long term solvency and survival . A lending bank through and analysis of these statements can decide whether the borrower retains the capacity of refunding the principle and paying interest in time or not .

) **Shareholders** : Who have invested their money in the firm 's shares are shareholders . Shareholders are most concern about the firm's earning .They evaluate the efficiency of the management and determine about the necessity for the change . The shareholders interest is to decide whether to buy,sell or hold the shares . They want to buy share the shares in case of better performance of the firm . However they are curious to sell the shares in case of poor performance .

) **Labor Union** : Labor unions are interested in right and benefits of labor to enhance the moral of labor . Labour are always motivated when wages, fringe benefits and other benefits are better . The benefit are affected by the company's profitability conditionary . There fore , the union assesses the financial condition of the firm . To determine whether the firm is in the situation or not not to make such facilities available. (Srivastav R.M 1993:45)

2.1.3 Types of Ratio Analysis :

Ratio Analysis refers to the numerical or quantitative relationship between two item or variable. It is computed by dividing one item of relationship with the other. Ratio Simply means one number expressed in terms of another .

Ratio analysis is a technique of analysis and interpretation of financial statement through mathematical expression . It may be defined as the mathematical expression of the relationship between two accounting figures .A ratio helps to the researcher to make qualitative judgment about the firms financial position and performance .

(webster's 1975:958)

Ratio analysis is a technique of analysis and interpretation of financial statement evaluate the performance of an organization by creating the ratio and ratio from the figure of different accounts consisting in balance sheet and income statement is known as ratio analysis.

(Dongol,2052:12)

Ratio analysis is widely used but it does not gives exact results by this conclusion ratio is means not end .The ratios used for financial analysis of business can classified in to four categories .They are :

-) Liquidity Ratios
-) Leverage Ratios
-) Activities Ratios
-) Profitability Ratios

▪ **Liquidity Ratio:**

The ability of firm to meet its short term obligation is known as liquidity . It reflects the short term financial strength of the business .These ratios are used to know the capacity of the concern to repay its short term liability . Liquidity ratio refers the relationship between cash and other current assets to current obligation .

A bank should ensure that it does not suffer from lack of liquidity and it does not have excess liquidity . Both conditions of liquidity are unfavorable for a bank .

A bank can experience lack of liquidity when cash outflows (due to deposit withdrawals , loan etc) exceed cash inflows (new deposits loan repayments etc . They can resolve any cash deficiency either by creating additional liabilities or by selling assets.

(Madhuraj 1989)

To analyze the ability of banks the following ratios are calculated .

-) Current ratio
-) Cash and bank balance to Total deposit ratios
-) Cash and bank balance to current ratio

▪ **Leverage ratio**

It is also termed as solvency Ratio or capital structure ratio . The leverage ratio are calculated to judge the long term financial position of a firm . These ratios measure the enterprise's ability to pay the interest regularly and to repay the principle on maturity.

(Dongol.2007 Bs :311)

In practice leverage is approached in two ways one approach examines balance sheet ratios and determines the extent to which borrowed funds have been used to finance the firm . The other approach measures the risks of debt by income statement ratios designed to determine the number of times fixed charges are covered by operating profit .These sets of ratios are complementary ,and most analysts examine.

(western J.Fred & Copland Thomas e , Ninth Edition : 203)

Following are ratios which are used in this study

Debt Assets Ratio

Debt Equity Ratio

Activities Ratio /Assets and Investment Management Ratio

Traditionally asset and investment management ratios have been called activity ratios or turnover ratios . Whatever the designation ,the idea is to measure how effectively the firm utilizes the investments and the economic resources at its command . Investments are made in order to produce profitable sales .Achieving profitable sales therefore involves making

sound investments . At the practical level, this involves comparisons between the level of sales and the investment in various asset accounts. The methodology postulates an optimal relationship between sales and the various types of assets management.

(Weston Fred & Complund Thomas : 199)

This ratio is used to examine the efficiency with which the firm manages and utilizes its assets. The better the management of assets the larger is the amount utilization of the funds. Some of selected ratios for this research can be illustrated as follows :

Loan and advances to total deposit ratio

Loan and advances to fixed deposit ratio

Loan and advances to total asset ratio

Total investment to total deposit ratio.

Investment on government securities to total working fund ratio

Investment to share and debenture to total fund ratio .

Profitability Ratio

Profitability ratio is measurement of efficiency and the search for it provides the degree of success in achieving desired profit . Any firm should earn a satisfactory profit to survive and run over a long period in the competitive environment . Profitability ratio can be determine on the basis of either sales or investment . Through this ratio the investors decide whether to invest in a particular business or not .

The future stream of cash flow in the result of a large number of policies and decisions .we start with historical data about cash flow and profitability but emphasize the these represent only the starting point . Further strategic and operating analysis is regular to make in earning full projections for time .

(western J.Fred & Complund Thomas E.193)

The following profitability ratios are computed to analyze the profitability banks :

Net profit to total assets ratio

Net profit to total deposit ratio

Net profit to net worth ratio

Total interest Earned to total Working fund

Total interest paid to ratio

2.2 Review of journal

Paudel, N.P.,(2065), in the journal entitled , " Financial statement analysis : An approach evaluate Bank's performance " which was published NRB Samachar (An annual publication -2065) is review as follows;

According to Paudel, Balance sheet, profit and loss a/c and the accompanying notes are the most useful aspects of the banks. It needs to understand the major characteristics of bank's balance sheet and profit and loss a/c. The bank's balance sheet is composed of financial claims as liabilities in the form a small portion of the total assets. Financial innovation, which are generally contingent nature, are considered , as off-balance sheet items.

Interest received on loan and advance and investment and paid on deposit liabilities are the major component of profit and loss account. The other sources of income are fee, commission, discount and service charges. The user of the financial statement of a bank need relevant , reliable and comparable information, which assist then in evaluating the financial position and performance of the bank and which is useful to them in making economic decisions. The disclosure requirement of bank's financial statement has been expressly laid down in the concern act. Commercial banking act 1974 requires the audited balance sheet and profit and loss account to be published in the loading newspaper for information of general public.

According to Paudel, the principle objectives of analyzing financial statement are to identify: liquidity, profitability and solving. Most of user of the financial statement are interest in assessing the ban's overall performance which is affected by the following factors.

The structure of balance sheet and profit and loss account

Opportunity efficiency and internal management system

Managerial decision taken by top management regarding interest rate, exchange rate, lending policies etc.

Environmental changes (technology, government, competition and economy)

The other factors to be considered in analyzing the financial statement of bank are to asses the capital adequacy ratio and liquidity position. In the line of adequacy of bank is assessed on the basis of risk-weighted assets. It indicates a bank's strength and solving. Bank facing with capital adequacy problem may increase capital or reduce assets or relocated the existing assets structure in order to maintain the level of capital base.

Liquidity is measured by the speed with which a bank's assets can be converted in to cash to meet deposit withdrawal and other current obligations. It is also important of survival and growth of a bank.

Dr.Shrestha,M.K,(2065),.in the journal entitled," Commercial Bank's Comparative Performance Evaluation " which was published in karmachari Sanchaya Kosh publication 2066 is review as follows;

) The journal stresses on a proper risk management with appropriate classification loans under performing and non-performing category. Researcher further clarifies adequate provisioning is the surest way to get relief from sinking fund after acre consideration of portfolio risk. A clear out criteria is necessary to treat interest suspense account and it id advisable that all interest unpaid fof more than six month need to be treated as unearned income ." Regarding the risk management of the bank Dr. Shrestha's other suggestion is as follows;

Any customer having overdue loan of two year or more in his account should not be given other loan facilities.

Strong provisioning or reservation is required in restructuring portfolio relating to overdue loans.

All credit including overdraft should be given a maturity date and should be suggested or doubtful loans.

Financial credit worthiness of the borrower must be evaluated properly before granting the loans.

The above journal focus in the various aspects of the bank's economic environment. Mr N.Paudel's works stresses in effective way of evaluating the financial performance and Dr.Shrestha's suggestion are focused towards proper risk management whatsoever, aspects of the bank the about journals targets, they all have to be combinable assessed and kept in strict consideration for effective and efficient financial performance of the banking in the Nepalese economy.

2.3 Review of Article

Mr. D.P., Paudel give more emphasis of financial performance of financial companies in the article "An Overview Financial Companies of Nepal". He had written that at the time

1996, the ratio of capital fund to deposit have been increasing over the time but to of this, it is substantially below than the authorized level of deposit mobilization, which is ten times of the capital base. Never the less, some of the finance companies have even mobilize the deposits by more than ten times of their capital base by violating the regulatory norms issued by NRB. The credit/ deposit ratio has remained quite high leaving the room for doubt about the quality of loan specially in the absence of repayment schedule. The loan diversification has been improved however, during a short span of time. As such the hire purchase housing and term loans are the major sectors, which ass together received more than 95% of the total loan and advances in mid-July 1996 . Because of the mushrooming growth of the number of the finance companies, the average sources of the funds for each company are nature to decline. Since the varying factors, it is too early to evaluate the performance of financial companies in Nepal but equally important factors is that the regulatory and supervisor authority should keep close eyes to monitor their activities.

Paudel, D.K. ,in the article ," Present condition of financial comparative" has presented with compared to the commercial banks, the interest rate is relatively highly than is provided and accepted by finance companies. The financial companies should not be confined only in the valley. They should extend their service to the rural sector of hill and terai to reduce the original imbalance. The collection of deposit and loan investment done by the commercial banks also to sustain themselves in the environment of competitors, they should introduce novel technology and equipments to collect deposit and investment. They should learn from the draw banks, failed and success of commercial banks to effectively maintain as alternative status.

Shrestha, R.L., in the article," Capital adequacy of bank in the Nepalese contents" has suggested that the banks deals in highly risky transaction to maintain strong capital base. He conclude that the capital base should neither be too much leading to inefficient allocation of scare resources nor so weak degree of risk associated with them are subject to changes country wise, bank wise and time period wise.

2.4 Review of Thesis

KC, Bhadrakali, 2011 has conducted a study entitled " A comparative study on financial performance of Kumari Bank Ltd.& Nepal Investment Bank Ltd." The study of this thesis is the descriptive analytical method . The care objectives of this thesis is to analyze the

financial performance of KBL and NIBL this includes the examining of liquidity capital structure and Activity and profitability ratios of the ratio of sample banks .

Liquidity position of both of the bank seems satisfactory . overall liquidity position of KBL appears stronger that of NIBL.It shows that KBL can meet its current liabilities more efficiently than NIBL.However looking up more funds in form of current assets in also not wise because it has negative impact on profitability.KBL is found more successful to utilize its deposit in profitable sector .All the parameters such as profitability ratio,Eps,Dps and dividend pay out ratio have been satisfactory in both sample banks.During the trend analysis it is also seen that the net profit for the sampled bank will decrease in 2015/16 from the profit 927873469.23 in 2015/16 for NIBL to 832859804.33 where as from 257471194.07 to 220028645.47 in the case of KBL.

Timsina,D.,(2010), has conducted a thesis " A comparative study on a financial performance of Everest Bank Limited and Himalayan Bank limited " In this study financial research and statistical tools have been used to achieve the objective of the study . The analysis of data will be done according to the pattern of data a variable .Likewise some financial tools such as ratio analysis have been used for financial analysis and the study also indicates the strength and weakness of both sample banks .

The liquidity ratio shows the ability of a firm to meet its short term obligations and select short term financial solvency of a firm where as HBL's average ratio is lower than EBL.It shows that the liquidity position in term of current assets for current liabilities of EBL is better than HBL. So it is conclude that HBL is better than EBL. Like wise the liquidity position of HBL in term of cash and bank balance to current deposit ratio is fund higher than EBL (i.e.40.77>6.66in average) . Here HBL has so wish ratio that it is not better because ideal assets earn nothing .In the same way fixed deposit to total deposit ratio of EBL is better than that of HBL.so the higher ratio of fixed deposit of total deposit ratio indicates the strong liquidity position.The activity turnover ratio of EBL is higher than EBL in term of loan and advance to total deposit ratio.The average ratio of EBL is 73.81% when as the average ratio of HBL is only 61.23% it shows the EBL has been successfully utilize their deposit in term of loan and advance for profit generating .HBL has more risky and aggressive capital structure than EBL Profitability ratio of EBL is greater than HEL in terms of net profit to total asset ratio ,net profit to total deposit ratio ,return to net worth shareholder equity,return

on net worth ratio and net profit margin ratio .It conclude that EBL is getting good return from its investment The interest income of EBL is more fluctuated than HBL.The ROI of both banks are in fluctuating trend .

Shakya,D. R, (2067), A thesis entitled , “ A comparative study of financial analysis of commercial banks in Nepal (with reference to Himalayan Bank Limited, Nabil Bank Limited, and Nepal Investment Bank Limited)”. The objective of the study is to find the analysis the trend of total deposit, loan and advance, total investment , net profit of the sample banks.

The trend line analysis of deposit ,loan and advance ,investment and net profit shows increasing trend which indicates future of those variables are bright. Among them NIBL has highest increasing trend in deposit and loan and advance and investment and net profit. That indicates NIBL is successful in mobilizing the deposit and loan and advance investment and net profit. The overall sample banks is satisfactory however inflection in the current situation come as a major factors in narrowing the scope of operation of these banks. Therefore Nepal Rastra Bank has to play more active role to enhance the operation. The analysis of financial performance shows that the all banks have aggressive policy in investment and lending. Deposits are main tool of investing and all banks deposits and net profit are in increasing trend.

Deo,D.P.,(2009) has conducted the study on "An analytical and comparative study on financial performance of Himalayan Bank limited and Nepal Investment Bank Limited " The objectives of the study are as:To analyze capital adequacy of HBL and NIBL,to assets the quality of assets of HBL and NIBL ,to evaluate whether HBL and NIBL is managing its expenses with respect to income ,to analyze the financial strength and weakness of the HBL and NIBL and to measure the liquidity position of HBL and NIBL

Liquidity ratio of both banks are satisfactory level and Loan and advance to current ratio of NIBL is higher than that of HBL which indicates it has given more loan and advance. NIBL is successful to collect larger amount of fixed deposit out of its total deposit which indicated by its higher mean ratio than that of HBL. The debt equity ratios of both banks are in highly fluctuation trend .Debt assets ratios of both banks are very consistent. NIBL has wishes investment in performing assets which shows by its wisher mean value.

The capital adequacy ratio of NIBL is higher than HBL. Success expenses of NIBL is higher than HBL. NIBL paid higher interest than HBL.

Banks can earn more by adding debt in its capital structure . HBL have less mobilization of total deposit to loan and advance than NIBL .The purpose of loan and advance is to generate income for the bank so HBL should increase a loan and advance .To maximize the profit HBL have to cut down its operating expenses. Bank should evaluate its investment profit every year. The overall investment of bank should be concentrated on producer sector . It may create employment opportunity which is necessary for capital formation and economic growth .

Shrestha,A., " financial performance analysis of commercial bank of NIBL" .The objectives of her studies are as:To conduct cash flow analysis and measure the operating efficiency ,stability and profitability and to measure the ability to meet the short term and long term obligations , to point out the weak and strength areas of the business performance and to analyze financial strength and weakness.

:

Liquidity ratio shows that the liquidity position of NIBL is better than NABIL .NABIL is has utilized the debt more than NIBL.Total deposit and total assets are higher in NIBL than that of NABIL .Banka are suffered from Liquidity position. Bank can earn more by adding debt in its capital structure. Managerial efficiency and assets utilization position of the sampled banks seems unsatisfactory. Profitability position of NIBL is much weaker than NABIL. Bank are suggested to review their overall capital structure and investment profit to make better combination of capital structure .

Bhattacharai,B., has conducted her study entitled "A study on fund mobilization (A comparative study of Himalayan Bank Ltd.Everest Bank Ltd and Nepal Investment Bank Ltd.)"

Objectives : To evaluate the growth and risk of loan and advance and total investment with respect to growth rate of total deposit and net profit of HBL,EBL and NIBL. To evaluate comparatively operating ,financial and investment efficiency of three banks. To analyze the sources and uses of fund and analysis of cash flow of these three banks . To carry out the

relationship between deposits and total investment deposits and loan and advance and net profit of HBL,EBL and NIBL

On the thesis ,the analyst fund that the liquidity position of NIBL is comparatively better than HBL and EBL similarly ,EBL is comparatively successful to invest productive sector and has mobilized its collected deposits to provide loan and advance . The NIBL is profitable in comparison to other compared banks.HBL has maintained the lower credit risk.The deposit is the strongest sources of fund whereas in borrowing cover fewer portion of sources of fund.NIBL has kept fewer amount in deposits in comparison to other two banks.Among the use of Funds,loan and advance covers maximum portion and interest accrued covers less portion. Correlation coefficient between deposit and total investment of HBL,EBL and NIBL shows the positive correlation.The researcher recommends that three banks fo follow liberal lending policy including procedure which rapid identification of bad debtor loans, immediate contact with borrower ,continual follow up and as well as legal procedure if required and to collect more amount as deposits through large variety of deposits scheme sand facilities.

Pokharel,S,(2009),A thesis entitled"A study on investment policy of joint venture commercial banks,(with special reference to Himalayan Bank Ltd,Nepal SBI Bank Ltd and NABIL Bank Ltd.)

Objectives of this study are as: To find out the relationship between total investment,loan and advaces,deposit,net profit and outside asset, to asses the impact of investment on profitability and o analyze and forecast the trend and structure of deposit utilization and its projection for five years of commercial banks .

NABL loan and advance to total deposit ratio is lowest in compared to other banks.To over come from the situation it is follows the liberal lending policy and invest more and more of total deposit in loan and advance and maintain stability on the investment policy. Profitability rates of bank are not satisfactory. if research held idle bank have to be bearded more cost and result would be lower profit ,so portfolio condition of a bank should be regulary revised from time to time .The investment policy of HBL is good in every aspect as studies above but consistency in the above investment sectors is in equilibrium stutes .It is fund that at time bank focuses much of its attention to one sector leaving other sector untouched.so it is recommended to touch all the sectors and balance it effectively as to have the optimal performance of the bank .The trend analysis of total deposit of SBI habe increasing trend and NABIL has decreasing trend.From the trend analysis it is forecasted that total deposit of HBL

in 2012/13 will be Rs.31296 million . similarly the total deposit of NABIL and SBI will be 38274.4 and 24276.2 million in the third mid july 2012/13 respectively.The deposit collection of NABIL is better than that of HBL and SBI .

2.5 Research Gap

There is gap between the present research and the previous researcher conducted on the topic concerning on financial aspects not for the trend of profit in the bank. Most of the previous researcher did not disclose what kinds of performance should be implemented in bank . This to fill up those gap the current research is conducted.

No researcher has been undertaken regarding the comparative analysis of financial analysis between the Nepal Investment Bank Limited and Standard Chartered Bank Nepal Limited . Some researcher has done the comparative studies of other banks .But I am willing to study with the major function of every commercial for evaluating the financial performance. Therefore it is the major concern of stakeholder to know the situation of the bank. Nepal Rastra Bank's policy and guidance are changing according to time. So , the to dated study over the change of time frame is major concern for researcher as well as concern organization. This study used the more recent financial data and financial analysis is done with in the latest guidelines of Nepal Rastra Bank.

Chapter -3

Research methodology

3.1 Research Design

Research design is a plane structure and strategy of investigation to obtain answer to research questions and to control variance. In other word, research design is a plane for collecting and analyzing to answer whatever question has posed. The design of investigator touches almost all aspects of the research, from the minute details of data collection to the selection of the techniques of data analysis.

“Research design is a master plane specifying the methods and procedure for collecting and analyzing the needed information.” Zikmund(2007)

3.2 Population and Sample

The population refers to the entire group of people, events or thing of interest that the researcher wishes to investigate. And sample is only a portion of the population.

The population for this study comprise all the commercial banks of the country. There are altogether 32 commercial banks in Nepal. There for, these all banks are considered as population.

It is not possible to study all of them so two commercial banks are taken for study. Out of the total banks two banks Nepal Investment Bank Limited and Standard Chartered Bank Nepal Limited are selected as sample for the study by using judgemental sampling method. To calculate industry average the selected sample are as follows;

1. Nepal Investment Bank Limited
2. Standard Chartered Bank Nepal

3.3 Sources of data

The study is based on secondary data. Secondary data have been collected through various books, published annual reports of concerned banks. Especially the data have been derived from the official websites of Nepal Investment Bank and Standard Chartered Bank Nepal Limited.

3.4 Data Collection Techniques

Generally the study is based on secondary data provided by the concerned banks. The main sources of secondary data are the annual reports, economic reports of the banks published in their respective annual general meeting and websites www.nibl.com.np, [www.standard charteredbanknepalltd.com.np](http://www.standardcharteredbanknepalltd.com.np). and www.rbb.com.np bank's websites.

In addition to that some of the relevant data is also collected from the non- bank financial statistics published by the non-bank regulation department of Nepal Rastra Bank.

3.5 Data Analyzing Techniques

For the purpose of analysis, financial statement of the concerned banks have been taken. Financial performance is analyze through the use of two important tools; i.e. financial and statistical tools are discussed in brief in the following paragraph.

3.6.1 Financial Tools

3.6.1.1 Ratio Analysis

Ratio analysis is one of the most important and mostly used financial tools. Ratio analysis is analysis of mathematical relationship between financial factors of financial statements. Financial ratio analysis is designed to determine the relative strength and weakness of business operations. It also provides framework for financial planning and control. Ratio analysis is widely used.

3.6.1.1 Liquidity Ratio:

The liquidity refers to the relationship between liquid assets and liability. Liquidity ratio measures the ability of firm to meet its current obligations. It reflects the short-term strength of the business. In order to ensure short-term solvency ,the company maintain an appropriate liquidity neither excess nor less to meet its short-term obligation. If the company maintain unnecessary high liquidity ratio then it may adversely effect in the profitability of the company will invest all its assets in safe liquid assets, which can lose the opportunity to earn high profit. In the other hand, if a company doesn't maintain adequate liquidity than it will result in bad credit rating, less creditors, confidence, eventually may lead to bankruptcy. Thus the company should maintain proper balance of liquid assets for the survival and for avoiding risk.

Current Ratio

The current ratio is the ratio of total assets to current liabilities. It is calculating by dividing current assets by current liabilities. Which is presented as follows.

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

The current ratio measures the extent to which the claims of short-term creditors are covered by short-term assets. Less or more than standard ratio ,is not preferable. If it is less than standard ratio ,it shows the solvency position is not better and vice versa.

Current assets are those assets which can be converted in to cash balance within analysis accounting period such as cash bank balance, investment in treasury bill, money at call or placement, loan, receivable and prepaid expenses.

Current liabilities refers to the short-term maturing obligations, This include all deposits liabilities, intra bank reconciliations accounts, bills payables, bank overdraft, provisions, tax provision, staff bonus, dividend payable and accrued expenses.

Cash and Bank Balance to Total Deposit Ratio

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

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

Cash and bank balance include cash on hand, foreign cash on hand, cheques and other cash items, balance with domestic banks, balance hold in foreign banks and other financial institutions.

The total deposit encompass current deposits, fixed deposits, investment in other financial institutions, money at call and short deposits and other deposits. A high ratio indicates the greater ability to meet their deposits liability and vice versa. Moreover, too high ratio is unfit, as capital will be tied-up and opportunity cost will be higher.

Cash and Bank Balance to Current Assets

Since cash and bank balance are the most liquid assets, a financial analyst may examine the ratio of cash and bank balance to current assets. This ratio shows the percentage of readily available with in the banks. It is calculated by dividing cash and bank balance by current assets, which is as follows.

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

High ratio indicates the sound ability to meet their daily cash requirement of their customer deposits and vice versa. Both higher and lower ratio is not desirable. The reason is that if a bank maintain higher ratio of cash, it has to pay interest on deposit but couldn't invest its cash or current assets in a profitable are so it may lost opportunity to earn something. In the opposite ,if a bank maintain low ratio cash ,it may fail to make payment for presented cheque by its customer. So , sufficient and appropriate cash reserve should be maintained properly.

3.6.1.2 Activity Ratio(Assets Management Ratio)

Assets and investment ratios have been called activity ratio. What ever designation on, the idea is to measure how effectively the firm utilized the investment and the economic resources at its command. Investment are made in order to produce profitable sales. Achieving profitable sales, therefore involves making sound investment, At the practical level, this involves comparison between the sales and the investment in various assets accounts. The methodology postulates an optimal relationship between sales and the various types of assets investment.

Loan and Advance to Total Deposit Ratio

The ratio measure the extent to which the banks are successful to utilize the external fund (total deposit) for the profit generating purpose on the loan and advances. Generally, a high ratio reflects higher efficiency to utilization of fund and vice versa. It can be calculated by dividing the amount of loan and advance by the amount of total deposits, which is given below.

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

Here loan and advance refers to total of loan, advances and overdraft and total deposits refers to total of all kinds of deposits.

3.6.1.3 Profitability Ratio

Profit is the different between total revenue and total expenses over a period of time. Profit is the ultimate output of a commercial banks and it will have to no future if it fails to make sufficient profit. There for, the financial manager continuously evaluate the efficiency of the business concerns. The relation of the return of the firm to either its sales or equity of its assets is known as profitability ratio. Profit is necessary to survive in any business fields for its successful operation and further expansion. It measures management's overall effectiveness as shown by the return generated on sales and investment. Higher the profitability ratio will better the financial performance of the banks and vice-versa. Profitability ratio can be calculates by following different ratio.

Net Profit to Total Assets Ratio

Net profit refers the profit after interest and taxes. It is also known as return on total assets (ROA). This ratio evaluate the efficiency of company in utilizing and mobilizing of assets and its survival. It is useful for measurement of the profitability of all financial resources invested in the bank assets. It also provides the foundation necessary for company to deliver a good return on equity. Higher return on assets (ROA) indicates higher efficiency in utilization of total assets and vice-versa. ROA is calculated by the amount of net profit by the total assets.

$$\text{Net Profit to Total Assets Ratio} = \frac{\text{Net Profit}}{\text{Total Assets}}$$

Net Profit to Total Deposit Ratio

Net profit to total deposit ratio evaluated whether management has been capable to mobilize and utilize the deposits. It also help to know the overall performance and generation of profit of banks. This ratio is most important to identify whether the organization well efficient or not in mobilizing its total deposits. So that corrective action could be taken. Higher ratio indicates better utilization of deposit and vice-versa. Here net profit after taxes and total deposit means total amount of deposit in various account ie. Saving, current, fixed and other. The return on total deposit ratio can be computed by dividing net profit by total deposits. This can be express as follows.

$$\text{Net Profit to Total Deposit Ratio} = \frac{\text{Net Profit}}{\text{Total Deposit}}$$

Net Profit to Net Worth Ratio

Net worth or shareholders equity refers to the owners claims on the assets of the banks. It can be found by deducting total liabilities from total assets(excluding intangible assets and accumulated losses). This ratio measures the profit earned by the commercial banks by utilizing owner's equity and there by generating return to satisfy the owners. This ratio indicates sound management and efficiency and wealth maximization of the banks, which return is the wealth maximization of the bank. It is calculated by dividing net profit by net worth. which is express as follows.

$$\text{Net Profit to Net Worth Ratio} = \frac{\text{Net Profit}}{\text{Net Worth}}$$

Total Interest Earned to Total Working Fund Ratio

The ratio shows the earning capacity of a bank on its total assets(working fund). This ratio exhibits the extent on which banks are successful in mobilizing their working fund to generate income as much as possible. The higher ratio will indicates the high earning power of the banks on its total assets. Total interest earned is calculated by adding the total income from loans, advances, cash, credit, overdrafts and government securities etc. This ratio is calculated by dividing net profit by total working fund.

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

Total interest Paid to Total Working Fund Ratio

The ratio is used to measure the percentage to total interest expenses against the total assets. Higher the ratio, higher will be the indication of interest expenses on total assets and vice-versa. Total interest expenses on total deposits, loan and advances, borrowing and other deposits. The ratio is calculated as follows.

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

3.6.1.4 leverage Ratio

This ratio is also called solvency ratio or capital structure ratio. A firm should have strong short-term as well as long-term financial position. To judge the long-term financial position of the firm, these ratios help to measure the financial contribution of owners and creditors comparatively. These ratios indicate the situation of the capital structure, which is calculated to measure the company's ability of using debt for benefit of shareholders. Long-term creditors like debenture holders, financial institutions etc. are more interested to the firm's long-term financial wealth, debt servicing capacity and strong and weakness of the concerns. This ratio may be calculated from the balance sheet items to determine the proportion of debt in total financing. In summary debt ratio tells us the relative proportions of capital contribution by creditors and owners.

Debt-Assets Ratio

This ratio exhibits the relationship between creditors fund and owners capital. This ratio shows the proportion of outside fund used in financing total assets. It also provides security / financial safety to the outsider's that is potential shareholder, depositor or investors. Higher debt ratio indicates higher financial risk as well as increasing claims of outsider in total assets of the firms.

Generally 1:2 ratio are considered good however no hard and fast rule is prescribed. This ratio implies a finance company success in exploiting debt to more profitable areas. This ratio represents as follows.

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

Debt-Equity Ratio

Debt equity ratio examines the relative claims of creditors and owners against the firm assets. Alternatively, the debt equity indicates the combination of debt capital and equity capital fund to the total investment. The ratio is computed by using following formula.

$$\text{Debt-Equity Ratio} = \frac{\text{Debt}}{\text{Equity}}$$

3.6.1.5 Capital Adequacy Ratio

The capital adequacy ratio is used to measure the strength of the capital adequacy of the available capital. It is measure by the capital(paid up capital) to the total assets explains the strength of the capital base of commercial banks. A high or low capital adequacy ratio undesirable items of lower return or lower solvency respectively. There for appropriate capital adequacy is needed but it is a controversial matter. According to NRB's prescription bank has to keep capital adequacy ratio. NRB's standard of capital adequacy ratio is changing over the time period. The capital adequacy is measured by analyzing following ratio.

Shareholders Fund to Total Assets Ratio

This ratio is concerned with the sufficiency of shareholders fund against the total assets. It is very essential for financial institutions to have a balance of required percentage of total assets at shareholders fund ie. Capital fund. Generally this ratio measures the fund claims of owners of the bank over its assets. A high ratio indicates that out of total assets shareholders have more controllable owner command and vice-versa. This ratio is calculated by dividing shareholders fund by total assets which is presented as follows.

$$\text{Shareholders Fund to Total Assets Ratio} = \frac{\text{Shareholders Fund}}{\text{Total Assets}}$$

Shareholders Fund to Total Deposit Ratio

Shareholders fund to total deposit shows how well bank are maintain sufficient account as shareholder's fund is comparison to the amount of the total deposit. This ratio is calculated by shareholders fund divided by total deposit. Which is presented as follows.

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

3.6.2 Statistical Tools

Various statistical tools related to this study will be drawn out to make the conclusion more reliable according to the available financial data for this following statistical tools are used .

3.6.2.1 Arithmetic Mean

The average value is single value with in the range of the data that is used to represent all of the values in the series .Since an average is some where with in the range data it is also called measure of central value .Since average represents the data its value lies some when in between the two average . Among them arithmetic mean which is more popular to denote particular type of average . It is obtained by divide sum of obtain .Observation by the number of items which is presents as follows.

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

Where ,

X = Arithmetic Average

x = Summation of Total value of the variable Observation

N = Number Of items

3.6.2.2 Standard Deviation

The standard deviation is the most important & widely used measure of studying dispersion . It is also known as root mean square deviation for the reason that the square root of the mean of the standard deviation from Arithmetic mean .It is also denote by the small Greece Letter (Sigma) .The standard deviation measures the absolute dispersion or variability of distribution .A small standard deviation means a high degree of uniformity of the observation as well as homogeneity of a series a large standard deviation means just the opposite . Hence , standard deviation is extremely useful in judging the representative of the mean symbolically

$$= \frac{\sum d^2}{N}$$

Where ,

= standard deviation

d² = sum of square of the deviation Measured from the a.m.

N = number of items

3.6.2.3 Coefficient of Variation

The coefficient of variation is the corresponding relative measure of dispersion comparable across distribution which is defines as the ratio of the standard deviation to the mean represented in resulting percentage . It is used in such problem where we want to compare the variability of two or more than two series . The series for which the coefficient

of variation is greater is said to be more variable or conversely less consistent less uniform less stable or less homogeneous on the other hand the series of which coefficient of variation is less is said to be less variable or more consistent more uniform, more stable or more homogeneous . we can denote this any following formula.

$$C.V = \frac{\sigma}{\bar{X}} * 100$$

Where,

CV = coefficient of variation

= Standard deviation

\bar{X} = Mean Average

3.6.2.4 Correlation Analysis

Correlation is the statistical tool use to describe the degree to which one variable is linearly related to another . The coefficient of correlation measure the degree of relationship between two sets of figures . Among the various method of findings out coefficient of correlation .Karl pearson's method is applied in the study . The result of coefficient of correlation is always between +1 and - 1 when r = +1 it means there is perfect relationship between two variables & + Ve when r = o it means there is no relationship between two variables the pearson's formula is :

$$r = \frac{N\sum dx dy - \sum dx * \sum dy}{N\sum dx^2}$$

Where,

r = coefficient of correlation

x = independent variable

y = dependent Variable

N = no. of period

3.6.2.5 Probable Error of the coefficient of correlation

After the calculation of coefficient of correlation one next things is to find out the intent to which is dependable for this purpose the probable error or the coefficient of correlation is calculated it the probable error is added to and subtracted from the coefficient of correlation it would be give two such limit with which can reasonably respect the value of coefficient or

correlation to vary the formula for findings out the probable of error of the karl pearson's coefficient of correlation is:

$$P.E.r. = 0.6745 * \frac{1-r}{\sqrt{N}}$$

P.E.r = probable error of coefficient of correlation

R = coefficient of correlation

N = Number of pairs of observation

In order to conclude whether the coefficient of correlation is significant or nor . The followings points should be kept in mind .

If the coefficient of correlation is less then it probable error it is not at all significant it the coefficient of correlation is more than sry times of probable error it is difinetly significant

It the probable error is not much and it is the coefficient of correlation is 0.5 or more it is generally to be significant .

3.6.2.6 Coefficient of Determination

The coefficient of determination is the measure of the degree of linear is correlation between two variable one of which happens to be independent and other is dependent variable . The coefficient of determination can have value ranging from zero to one . A value of one can occur only if the unexplained variation is zero which simply means that all the data points in the scatter diagram fall exactly on the regression line . coefficient of determination is the square of the coefficient of correlation

Symbolical

$$R^2 = (r)^2$$

Where ,

R^2 = coefficient of determination

r = coefficient of correlation

3.6.2.7 Trend Analysis :

Trend analysis describes the average relations between series where the one series related to time and other series to the value of the variable it is generally shows that the line of the best fit or straight line is obtained or not .The line of the best best fit describes the changes a given companying a Unit change in time another word it given the best possible mean values of dependant variable for a given value of independent variable .

For calculation of the line of the best fit followings equation should be kept in mind.

$$Y_c = a + bx$$

Where,

y_c = The estimated value of y for given value of x obtained from the line of regression of y on x

a = y -intercept / mean of y value

b = slope of line / rate of change

y = the variable in time series analysis represent time In order to determined the value of the constant (a and b) the following two norms equation are to be solved .

$$y = Na + b x \quad xy = a x + b x^2$$

Where ,

N = Number of years for with the data are given

Here X stands for the time variation and Y for the variables related to time ,Naturally if we take the middle years of the mid point of two years as the starting point , X will be equal to .

U and two equation will than be

$$y = Na \quad \text{and} \quad xy = b x^2$$

By transformation we can

$$a = \frac{\sum y}{N} \quad \text{and} \quad b = \frac{\sum xy}{\sum x^2}$$

The term best fit is interpreted in accordance with the principle of least square which consists in minimizing the sum of square of the residual of the error of estimates i .e. the deviation between the given observed value of the variable another is corresponding estimated value as given by the line of best fit .

The topic will be used to forecast the ratio between net infinite and deposit net profit and investment liner profit and long advance of the become for next give years on the none of past five years . The analysis is done under limited factor which are as follows.

The economy will remind unchanged on of present the singly .

Banks will run on present position the guidelines by NRB for Banks will remain unchanged as of present the singly .

Banks will run on present position the guidelines by NRB for banks will remain unchanged .

The forecast will be true only when the limitations of least square method are carried out.

The main Compton is that other fact are constant .

3.6.2.8 Regression Analysis

Sometimes the correlation between two variables may be insufficient to determine reliable estimation equation . Yet if we add the date from more independent variables we may be able to determine an estimating equation the describes the relationship with greater accure in regression analysis we are independent variables utilizing more of the information variable to us to estimate the dependent variable .

3.6.2.9 Testing hypothesis :

The test of hypothesis is a problem of testing of signification regarding the par a meter of the population on the basis of the sample drawn from the population . The computed value of the statistic may differ from the hypothetical value of parameter due to sampling fluctuating Hence the difference is considered to be significant and the hypothesis is accepted . If the difference is large it has not ariseded to sampling fluctuating but it is due to some other reasons . Hence the difference is considered to be significant and the hypothesis is rejected thus the test of hypothesis discloses whether the different between the computed statistic and hypothetical parameter is significant or not .

The method of statistic which help in arriving at the criterion for such decision is called test of hypothesis are statistical decision making . A hypothesis is analysis assumption that make a hall the population parameter . Alternatively a hypothesis is a conjectural statement of the relationship between two or more variables .

Hypothesis statement should be able to show the relationship between variables . There are different type of hypothesis among them test is to test the validity or our assumption . If sample size is less than 30 contrast of small sample that 't' value is calculated first and compared with the table value of 't' at a certain level of significant value of 't' exceeds the table value say 0.05 we infer that the difference is significant at 5% level .But if 't' is less than the concerning table value of the 't' the difference is not treated as significant the statistic is calculated by the following formula under:

$$T = \frac{r}{\sqrt{1-r^2}} * \sqrt{n-2}$$

In order to determine the value of the constant (a and b) the following two normal equations are to be solved.

$$y = Na + bx \quad \text{and} \quad \sum xy = a \sum x + b \sum x^2$$

Where,

N = Number of years for which the data are given

Here X stands for the time variation and Y for the variables related to time. Naturally if we take the middle years of the mid-point of two years as the starting point, X will be equal to 0. U and two equations will then be

$$y = Na \quad \text{and} \quad \sum xy = b \sum x^2$$

By transformation we can write

$$a = \frac{\sum Y}{N} \quad \text{and} \quad b = \frac{\sum XY}{\sum x^2}$$

Chapter -4

Data Presentation and Analysis

Method of analysis are applied as simple as possible . Every result has been given simultaneously. Detail calculation which can not show in the body part of the reports, in presented in appendix table at the end of the report. To make thesis simple, easy and understandable charts, diagrams and graphs is being used as far as possible.

The chapter data of sample banks are presented and analyzed according to the objectives set in the introduction chapter. The data analysis is based on the provided financial materials by the concerned bank.

To make the data, more realistic and fully qualitative analysis are done through different financial ratios and statistical analysis. This chapter also helps for presenting a major finding, proper recommendation for researcher, which needs to define in next chapter. In this way analysis effort is made to proper linkage of every chapter.

In order to find out the strength and weakness and financial performance of the sample banks various ratios and variables have been calculated.

4.1 Ratio Analysis

Ratio analysis is the expression of the relationship between the mutually independent figures. It shows the qualitative relation between two variables. Simply, it is calculated by dividing one variable by another variable.

There are various types of financial ratios which are used by different fields for different purposes. Such as, creditors, investors, financial institutions and management of the firm. In this analysis following ratios are analyzed and interpreted for the past five years for the sample banks.

4.1.1 Liquidity Ratio

A bank should maintain its satisfactory liquidity position to satisfy the short-term credit needs of the community, to meet demands for depositors, withdrawals, pay maturity obligations in time and convert non-cash assets into cash to satisfy immediate needs without loss to the bank and consequent impact in long run profit. Liquidity ratio measures the short run solvency of the firm.

Current Ratio

Current ratio indicates the ability of the company to meet its current obligations. This is the broad measurement of liquidity position of the banks. In other words, it measures the

availability for current assets for meeting current liabilities. This ratio is also known as working capital. Following table shows the comparative current ratio for five years.

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

Table No. 4.1: Current Ratio of NIBL and SCBNL

(Rs in million)

Fiscal Year	Banks					
	NIBL			SCBNL		
	Current Assets	Current liability	Ratio (Times)	Current assets	Current Liability	Ratio (Times)
2007-2008	14997.873	15917.180	0.9920	16443.164	16621.528	0.9893
2008-2009	21231.517	22405.830	0.9476	19407.809	1895.641	01.024
2009-2010	30423.792	29162.947	1.0432	22971.340	22873.771	1.0043
2010-2011	32007.313	32262.262	0.9921	22192.548	22770.522	0.9746
2011-2012	33385.160	32883.998	1.0152	25861.471	24933.045	1.0372
Mean			0.9880			1.0059
S.D.			0.04346			0.0255
C.V.(%)			4.40			2.54

(Source Annual Report of NIBL and SCBNL)

Above table indicates the current ratio of the sample banks. The ratio of NIBL is fluctuating order that is from 0.9420 to 1.0152 in fiscal year 2007/08 to 2011/12 through out study period. Similarly, current ratio of SCBNL is in fluctuating order. The highest ratio is in the year 2008/9 which is 1.0432 and lowest is 0.9420 in the year 2007/8. Since the mean ratio of SCBNL is the above 1:1, which indicates the successful management of current assets over the current liabilities where as NIBL has below 1:1 mean ratio which means it has failed to maintain the current obligation. AS concern with liquidity and consistency SCBNL seems to be in better position than NIBL which is by the lower c.v.(2.54%).

Cash and Bank Balance to Total Deposit Ratio

The Main purpose of this ratio is to examine the bank's liquidity capacity on the basis of cash and bank balance. The following table shows cash and bank balance to total deposit ratio of selected sample banks.

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

Table No. 4.2: Cash and Bank Balance to Total Deposit Ratio of NIBL and SCBNL

(Rs in million)

Fiscal Year	Banks					
	NIBL			SCBNL		
	Cash and Bank balance	Total deposit	Ratio (Times)	Cash and bank balance	Total deposit	Ratio (Times)
2007-2008	2441.514	24488.8560	0.1000	2021.0210	24647.021	0.0820
2008-2009	3754.942	34451.7260	0.1090	2050.2430	29743.9990	0.0690
2009-2010	7918.004	46698.1000	0.1696	3137.164	35350.8240	0.0887
2010-2011	6815.890	50094.7250	0.1380	1929.307	35182.7210	0.0548
2011-2012	8140.371	50138.1220	0.1624	2975.795	37999.2420	0.0783
Mean			0.1358			0.0746
S.D.			0.0314			0.0131
C.V.(%)			22.86			17.61

(Source: Annual Report of NIBL and SCBNL)

BNL)

In the table no.2 shows the fluctuation on cash and bank balance to total deposit ratio of the sample bank. During the study period of five year period , the ratio of NIBL is ranged between 0.1000 in year 2007/8 to 0.1624 in year2007/08 to 2011/12, SCBNL is ranged between 0.0820 in year2007/8 to 0.0783 in year 2011/12. It shows that NIBN has maintain the highest mean ratio which is 0.0358 than SCBNL. This shows that NIBL Has successfully maintain the higher cash and bank balance to total deposit ratio. It means that NIBL is successful in meeting the daily cash requirement. Even though SCBNL is failed to maintain a higher cash balance which is shown by mean ratio 0.0746. It has also fail to maintain a consistency level in utilizing the cash balance than NIBL. This consistency is measured by

higher c.v. (22.86%), which is higher than that of SCBNL. NIBL mean is 0.0358 and c.v.(22.86%) which indicates higher mean ratio and higher consistency. Holding cash and bank balance can have a negative impact on the goodwill and reputation of the bank to fulfill the demand of the profit holder and lower cash balance can have a negative impact on the customer. Therefore bank should maintain the proper liquidity.

Cash and Bank Balance to Current Assets Ratio

This ratio measures at what level of cash and bank balance they have out of total current assets. The cash and bank balance are the most liquid assets in terms of other current assets. It also shows that the bank ability to pay to the deposit.

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

Table No.4.3: Cash and Bank Balance to Current Assets Ratio of NIBN and SCBNL

(Rs in million)

Fiscal Year	Banks					
	NIBL			SCBNL		
	Cash and bank balance	Current assets	Ratio (Times)	Cash and bank balance	Current assets	Ratio (times)
2007-2008	2441.514	14997.8730	0.1628	2021.0210	16443.1640	0.0229
2008-2009	3754.942	21231.5170	0.1769	2050.2430	19407.8090	0.1056
2009-2010	7918.004	30423.7920	0.2603	3137.164	22971.3400	0.1366
2010-2011	6815.890	32007.3130	0.2129	1929.307	22192.5480	0.0869
2011-2012	8140.371	33385.160	0.2438	2975.795	25861.4710	0.1151
Mean			0.2113			0.1134
S.D.			0.0419			0.0867
C.V.(%)			19.79			16.46

(Source Annual Report of NIBL and SCBNL)

The above table shows that the ratio of NIBL is ranged between the 0.1628 in year 2007/08 to 0.2438 in year 2011/12 with mean ratio 0.2113, SCBNL is ranged between 0.1220 in year 2007/8 to 0.1151 in year 2011/12 with mean ratio of 0.1134.

Since, the mean ratio of NIBL is higher than that of SCBNL. It support the conclusion that NIBL has been successful in maintaining its higher cash bank balance to current assets ratio, but it does not mean that it has mobilized its more fund in profitable sectors. It actually mean that NIBL can meet its daily cash requirement. In contrast SCBNL has lower mean ratio. Because it may have invested their fund in more productive sectors. However, as the c.v. of NIBL is higher than that of SCBNL which is 19.79, indicates that the bank is failed to maintaining a stability of loan and advance in comparison to SCBNL.

Loan and Advance to Current Assets Ratio

This ratio measures the amount of investment in loan and advance out of total current assets. This ratio shows the liquidity position of the banks as loan and advance are also liquid assets. If it invested in higher return area than it would be profitable for the banks.

$$\text{Loan and Advance to Current Assets Ratio} = \frac{\text{Loan and Advance}}{\text{Current Assets}}$$

Table No. 4.4: Loan and Advance to Current Assets Ratio of NIBN and SCBNL

(Rs in million)

Fiscal Year	Banks					
	NIBL			SCBNL		
	Loan and advance	Current assets	Ratio (Times)	Loan and advance	Current assets	Ratio (times)
2007-2008	8884.550	14997.8730	0.5924	5251.319	16443.1640	0.3194
2008-2009	13764.653	21231.5170	0.6480	6859.299	19407.8090	0.3534
2009-2010	18413.579	30423.7920	0.6052	6839.879	22971.3400	0.2987
2010-2011	20474.220	32007.3130	0.6397	7978.478	22192.5480	0.3595
2011-2012	20943.847	33385.160	0.6273	9213.635	25861.4710	0.3563
Mean			0.6225			0.3373
S.D.			0.0234			0.0274
C.V.(%)			3.75			8.11

(Source Annual Report of NIBL and SCBNL)

The above table shows ratio of loan and advance over the current assets. The ratio of NIBL is ranged between 0.5924 in year 2007/8 to 0.6273 with the mean ratio of 0.6225. Similarly, ratio of SCBNL is ranged in between 0.3194 in year 2007/8 to 0.3563 with the

mean ratio of 0.3563 respectively. The ratio are in fluctuating trend. The Mean ratio of NIBL is higher than SCBNL which indicates that it has invested larger than in loan and advance. In terms of consistency, NIBL has maintain a successful consistency level of SCBNL which is indicated by lower c.v. 80.11%.

4.1.2 Leverage Ratio or Capital Structure Ratio

Leverage is also one of the major ratio to know about the financial performance of any institutions. This ratio reveals the proportion of fund used by the institutions either from the creditor's side or from owner side. In order to maintain healthy financial position of any institutions need to maintain proper proportion of debt and equity capital. A capital structure of an institution is very important in terms of sustainability, liquidity and profitability.

Debt-Equity Ratio

The debt-equity ratio implies the debt equity proportion used by the institutions. High debt equity ratio indicates more use of money from creditor's side and vice Debt-Equity

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

TableNo.4.5:Debt-Equity Ratio of NIBN and SCBNL

Fiscal Year	Banks (Rs in million)					
	NIBL			SCBNL		
	Total debt	Total equity	Ratio (Times)	Total debt	Total equity	Ratio (times)
2007-2008	26195.3930	1878.1240	13.9476	26480.3360	2116.4530	12.5120
2008-2009	36719.1730	2686.7890	13.6670	30843.2410	2492.5470	12.3740
2009-2010	49692.1140	3907.8400	12.7160	37014.1000	3052.4700	12.1260
2010-2011	52747.877	5187.6680	10.1679	36843.6110	3369.7090	10.9340
2011-2012	53989.247	5159.7600	10.4635	40132.7430	3677.7770	10.9120
Mean			12.1924			11.7720
S.D.			1.7691			0.7869
C.V.(%)			14.51			6.68

(Source Annual Report of NIBL and SCBNL)

The above table shows that ratio of both banks are decreasing trend from year 2007/8. The ratio is ranged between 13.9476 in year 2007/8 to 10.4635 in year 2011/12 with mean ratio of 12.1924 of NIBL bank. In same way the ratio of SCBNL is ranged between 12.5120 in year 2007/8 to 10.9120 in year 2011/12 with mean ratio of 11.7720. The mean ratio of SCBNL is lower than that of NIBL. It declare that SCBNL has lower debt cost and higher investment from equity fund. The ratio of both banks are fluctuating mode. The higher debt investment brings a higher cost to the banks.

The c.v. of NIBL and SCBNL are 14051% and 6.68% respectively. Therefore SCBNL has lower c.v. which indicates that SCBNL has consistency in debt- equity ratio.

Debt – Total Assets Ratio

It measures proportion of the creditor's fund used by the assets. The increased proportion of debt indicated the high level of risk or burden to the institution. The debt is considering more risky and cheaper sources of financing . The higher level of risk, in the since the debt financing needs payment of interest in any economic. The debt assets ratio of the sample banks are as below;

$$\text{Debt-Assets Ratio} = \frac{\text{Total Equity}}{\text{Total Assets}}$$

Table No.4.6: Debt –Assets Ratio of NIBN and SCBNL

(Rs in million)

Fiscal Year	Banks					
	NIBL			SCBNL		
	Total debt	Total assets	Ratio (Times)	Total debt	Total assets	Ratio (times)
2007-2008	26195.3930	28073.5170	0.9331	26480.3360	28596.6890	0.9260
2008-2009	36719.1730	39409.9590	0.9318	30843.2410	33335.7880	0.9252
2009-2010	49692.1140	53600.0540	0.9271	37014.1000	40066.5700	0.9238
2010-2011	52747.877	57935.5450	0.9105	36843.6110	40213.3200	0.9162
2011-2012	53989.247	59149.0070	0.9128	40132.7430	43810.5200	0.9161
Mean			0.9231			0.9215
S.D.			0.0107			0.0489
C.V.(%)			1.16			5.31

(Source Annual Report of NIBL and SCBNL)

The above table shows that debts financing of both sample banks are high. The ratio are very fluctuating . The highest are of NIBL is 0.9331 in year 2007/8 with mean ratio of 0.9231 which is highest mean ratio than SCBNL. The ratio of NINL is raised between 0.9331 in year 2007/8 to 0.9128 in year 2011/12. Similarly, ratio of SCBNL is raised in between 0.9260 in year 206/7 to 0.9162 in year 2011/12 respectively. The c.v. of NIBL and SCBNL are 1.16% and 5.31 % respectively. Above statement conclude that the debt financing of NIBL is higher than SCBNL. Even though SCBNL use low proportion of debt are not successfully maintain a consistency. NIBL has more consistency than SCBNL due to lower c.v.(1.16%).

4.1.3 Activity Ratio or Assets and Investment management Ratio

Bank must be able to manage its assets very to earn high return to satisfy its customer and for its own existence. Assets management ratio predicts how efficiently banks manage the resources at its command. The following assets management ratio are used in this study for comparison of the banks.

Loan and Advance to Deposit Ratio

This ratio measures the deposit to which the banks are successful to mobilize the total deposit on loan and advances for the purpose of income generation. The following table

exhibits the ratio of loan and advance to total deposits of the banks throughout the study period.

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

Table No.4.7: Loan and Advance to Total Deposit Ratio of NIBN and SCBNL

(Rs in million)

Fiscal Year	Banks					
	NIBL			SCBNL		
	Loan and advance	Total deposit	Ratio (Times)	Loan and advance	Total deposit	Ratio (times)
2007-2008	17769.1000	24488.8560	0.7256	10502.6370	24647.021	0.4261
2008-2009	27529.3050	34451.7260	0.7991	13718.5970	29743.9990	0.4612
2009-2010	36827.1570	46698.1000	0.7886	13679.9550	35350.8240	0.3870
2010-2011	40948.4400	50094.7250	0.8174	15956.9550	35182.7210	0.4536
2011-2012	41887.6940	50138.1220	0.8354	18427.2700	37999.2420	0.4850
Mean			0.7932			0.4426
S.D.			0.0418			0.0375
C.V.(%)			5.27			8.47

(Source Annual Report of NIBL and SCBNL)

From the above comparative table, it reveals the highly fluctuation of ratio during the study period of five years of sample banks. In fiscal year 2007/8 and 2011/12 NIBL has registered the lowest ratio(0.7256) and highest ratio (0.8354) respectively with the mean ratio of 0.7932 which is lower than SCBNL. Similarly, SCBNL has registered the highest ratio (0.4850) and lowest ratio (0.3870) with the mean ratio of 0.4426. NIBK has higher mean ratio of 0.7932 which shows that they are successful in mobilizing the loan and advances to productive sectors with respect to total deposit where as SCBNL is less successful in comparison to other sample banks. An concern with the consistency of SCBNL failed to maintain the consistency comparison to NIBL because it has higher c.v.(8.47%),Whereas NIBL c.v.is 5.27%. It shows that NIBL is able to maintain the stability in investing through loan and advance of NIBL.

Loan and Advance to Total Assets Ratio

This ratio measures the proportion of investment in loan and advance out of total assets. Total assets of any organization are very important for different purposes and so for how the total assets formation is also important. Loan and advance is current assets. Investment of an organization which is utilized for short-term obligation.

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

Table No.4.8: Loan and Advance to Total Assets Ratio of NIBN and SCBNL (Rs in million)

Fiscal Year	Banks					
	NIBL			SCBNL		
	Loan and advance	Total assets	Ratio (Times)	Loa nand advance	Total assets	Ratio (times)
2007-2008	17769.1000	28073.5170	0.6329	10502.6370	28596.9890	0.3673
2008-2009	27529.3050	39405.9590	0.6986	13718.5970	33335.7880	0.4115
2009-2010	36827.1570	53600.0540	0.6871	13679.9550	40066.5700	0.3414
2010-2011	40948.4400	57935.545	0.7068	15956.9550	40213.3200	0.3968
2011-2012	41887.6940	59149.0070	0.7082	18427.2700	43810.5200	0.4206
Mean			0.6867			0.3875
S.D.			0.0312			0.0328
C.V.(%)			4.54			8.46

(Source Annual Report of NIBL and SCBNL)

The table presented above shows that the ratio of NIBL is ranged between 0.6329 in year 2007/8 to 0.7082 in year 2011/12, SCBNL is ranged between 0.3673 in year 2007/8 to 0.4206 in year 2011/12 respectively. The ratios are in fluctuating trend. As the mean ratio of NIBL is higher (0.6867) which indicates that it has invested larger amount in loan and advance than that of SCBNL. In terms of consistency, NIBL has maintain a successful consistency level that of SCBNK, which indicates by lower c.v. 4.54%.

Long term Investment to Total Deposit Ratio

The main purpose of this ratio is to measure successfulness in mobilizing the deposit in investment. The long term investment to total deposit ratio of different banks in the study period are mentioned in the following table.

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

Table No.4.9: Long term Investment to Total Deposit Ratio of NIBN and SCBNL

(Rs in million)

Fiscal Year	Banks					
	NIBL			SCBNL		
	Investment	Total deposit	Ratio (Times)	Investment	Total deposit	Ratio (times)
2007-2008	6868.6500	24488.8560	0.2807	13553.2330	24647.0210	0.5500
2008-2009	6874.0240	34451.7260	0.1994	13902.8190	29743.9990	0.4674
2009-2010	7403.1120	46698.1000	0.1585	20236.1210	35350.8240	0.5724
2010-2011	8635.5300	50094.7250	0.1724	19847.5110	35182.7210	0.5641
2011-2012	7423.1070	50138.1220	0.1481	17258.6820	37999.2420	0.4542
Mean			0.1918			0.5216
S.D.			0.0533			0.0563
C.V.(%)			27.79			10.79

(Source Annual Report of NIBL and SCBNL)

From the above table we can analyze that the ratio of NIBL is ranged between 0.2807 in year 2007/8 to 0.1481 in year 2011/12 with mean ratio of 0.1918. Similarly, the ratio of SCBNL is ranged between 0.5500 in year 2007/8 to 0.4542 in year 2011/12 with mean ratio of 0.5216. SCBNL has higher mean ratio than NIBL which indicates it has successfully invested in investment out of total deposit. A large proportion of investment in long term investment may bring a high return to the banks. More over SCBNL has successful to maintain its consistency in comparison to NIBL, which is lower c.v. that is 10.79%.

Performing Assets to Total Debt Ratio

This ratio measures the extent to which the outsider's fund is invested in performing assets.

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

Table No.4.10: Performing Assets to Total Debt Ratio of NIBL and SCBNL

(Rs in million)

Fiscal Year	Banks					
	NIBL			SCBNL		
	Performing assets	Total debt	Ratio (Times)	Performing assets	Total debt	Ratio (times)
2007-2008	14997.8730	26195.3930	0.5730	16443.1640	26480.3360	0.6210
2008-2009	21231.5170	36719.1730	0.5780	19407.8090	30843.2410	0.6290
2009-2010	30423.7920	49692.1140	0.6120	22971.3400	37014.1000	0.6210
2010-2011	32007.3130	52747.877	0.6070	22192.5480	36843.6110	0.6020
2011-2012	33385.160	53989.247	0.6180	25861.4710	40132.7430	0.6440
Mean			0.5976			0.6234
S.D.			0.027			0.0153
C.V.(%)			3.45			2.45

(Source Annual Report of NIBL and SCBNL)

In the above comparative table, reveals that the ratio of NIBL is in fluctuating trend. The ratio of NIBL is ranged between 0.5730 in year 2007/8 to 0.6180 in year 2011/12 with mean ratio of 0.5976. Similarly, SCBNL is ranged between 0.6210 in year 2007/8 to 0.6440 in year 2011/12 with mean ratio of 0.6234. The mean ratio of SCBNL is higher than that of NIBL. The higher mean ratio indicates that the SCBNL has used outsider's investment that NIBL. In terms of c.v. SCBNL has also successfully maintained its consistency due to its lower c.v. which is 2.45%.

Personnel Expenses to Total Income Ratio

This ratio is measures the percentage expenses to personnel out of the forms total income.

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

Table No.4.11: Personnel Expenses to Total Income Ratio

(Rs in million)

Fiscal Year	Banks					
	NIBL			SCBNL		
	Personnel expenses	Total income	Ratio (Times)	Personnel expenses	Total income	Ratio (times)
2007-2008	145.3710	114.2330	0.1110	199.7780	1558.0060	0.1280
2008-2009	187.1500	1758.2490	0.1060	225.2560	1774.1450	0.1270
2009-2010	225.7210	2116.6620	0.1010	253.0560	2092.1250	0.1210
2010-2011	279.8510	2734.9300	0.1020	312.9640	2297.7100	0.1360
2011-2012	326.5430	2833.5940	0.1150	365.9860	2461.2570	0.1490
Mean			0.1070			0.1322
S.D.			0.0060			0.0108
C.V.(%)			5.57			8.16

(Source Annual Report of NIBL and SCBNL)

In the above table, the ratio of NIBL is ranged between 0.1110 in year 2007/8 to 0.1150 in year 2011/12 with the mean ratio of 0.1070. Similarly, the ratio of SCBNL is ranged between 0.1280 in year 2006 to 0.1490 in year 2011/12 with mean ratio of 0.1322 respectively. The ratio of both banks are in increasing trend, which shows either banks have increases employees pay scale or it have open different branches which has increase its ratio. Employee's point of view they desired high ratio, however it functions as catalyst for employee working spirit. The mean ratio of SCBNL is higher than that of NIBL which indicates the bank has well paid to its employee. Moreover in terms of consistency , NIBL has maintained its consistency level ,which reveals by lower c.v. of 5.57%.

4.1.4 Profitability Ratio

The main objective of a bank is to make profit providing different types of services to its customers. To meet those objectives likewise a good liquidity position, meet fixed interest obligations, overcome the future contingencies, grab the investment opportunities, business expansion etc. They must earn sufficient profit. It is an obvious that profitability ratio are the best indicators of overall efficiency. In this study, mainly those ratios are presented which are related with profit as well as fund mobilization. The following are profitability ratios those are relevant in study.

Net Profit to Total Deposit Ratio

The following table reveals the percentage of net profit to total deposit of the sample banks.

$$\text{Net Profit to Total Deposit Ratio} = \frac{\text{Net Profit}}{\text{Total Deposit}}$$

Table No.4.12 : Net Profit to Total Deposit Ratio

(Rs in million)

Fiscal Year	Banks					
	NIBL			SCBNL		
	Net profit	Total deposit	Ratio(%)	Net profit	Total deposit	Ratio(%)
2007-2008	501.3990	24488.8560	2.0500	691.6680	24647.021	2.8100
2008-2009	696.7320	34451.7260	2.0200	818.9210	29743.9990	2.7500
2009-2010	900.6190	46698.1000	2.2100	1025.1140	35350.8240	2.9000
2010-2011	1265.9500	50094.7250	2.5300	1085.8730	35182.7210	3.0900
2011-2012	1176.641	50138.1220	2.3500	1119.1710	37999.2420	2.9500
Mean			2.2320			2.9000
S.D.			0.2129			0.1315
C.V.(%)			9.54			4.54

(Source Annual Report of NIBL and SCBNL)

The above comparative table reveals the net profit to total deposit ratio are in fluctuating situating of both banks. The ratio of NIBL has ranged between 2.0500 in year 2007/8 to 2.350 in year 2011/12 with mean ratio of 2.232. similarly, SCBNL has ranged between 2.8100 in year 2007/8 to 2.9500 in 2011/12 with mean ratio of 2.900. The mean ratio of

SCBNL is higher than that of NIBL, which indicates the better performance in utilizing deposit to earn higher profit .AS for as consistency level, SCBNL has successful in maintaining consistency in mobilizing total deposit to earn the profit even though it has lower c.v. 4.54%.

Net Profit to total Assets Ratio

This ratio is a measuring tool of profitability with respect to each financial resources investment of the assets . If banks total assets is well managed and utilized efficiently, return on such assets will be higher and vice-versa. The following comparative table shows the return on total assets ratio of different banks recorded in the study period.

$$\text{Net Profit to Total Assets Ratio} = \frac{\text{Net Profit}}{\text{Total Assets}}$$

Table No.4.13: Net Profit to Total Assets Ratio of NIBN and SCBNL

(Rs in million)

Fiscal Year	Banks					
	NIBL			SCBNL		
	Net profit	Total assets	Ratio (%)	Net profit	Total assets	Ratio (%)
2007-2008	501.3990	28073.5170	1.79	691.6680	28596.9890	2.42
2008-2009	696.7320	39405.9590	1.77	818.9210	33335.7880	2.46
2009-2010	900.6190	53600.0540	1.68	1025.1140	40066.5700	2.56
2010-2011	1265.950	57935.545	2.19	1085.8730	40213.3200	2.70
2011-2012	1176.641	59149.0070	1.99	1119.1710	43810.5200	2.55
Mean			1.8840			2.5380
S.D.			0.2105			0.1080
C.V.(%)			10.89			4.26

(Source Annual Report of NIBL and SCBNL)

From the above comparative table reveals the net profit to total assets ratio are in fluctuating situation of both banks. The ratio of NIBL is ranged between 1.79% in year 2007/8 to 1.99% in year 2011/12 with mean ratio of 1.8840, similarly SCBNL is ranged between 2.42% in year 2007/8 to 2.55% in year 2011/12 with mean ratio of 2.5380 respectively. SCBNL has higher mean ratio with 2.5380 which determined that SCBNL is successful in earning the net profit with efficient utilization of total assets with comparison to

NIBL. In addition, SCBNL is also successful to maintain the consistency profit which is shown by lower c.v. 4.26%.

■

Return on Net Worth

This ratio is used to measure the successfulness of earning the profit with respect to the shareholder's equity. The following table presented the net profit to net worth ratio of sample banks.

$$\text{Return on Net Worth} = \frac{\text{Net profit}}{\text{Net Worth}}$$

Table No.4.14:Return on Net Worth Ratio

(Rs in million)

Fiscal Year	Banks					
	NIBL			SCBNL		
	Net profit	Net worth	Ratio (%)	Net profit	Net worth	Ratio (%)
2007-2008	501.3990	1878.1240	26.70	691.6680	2116.3530	32.68
2008-2009	696.7320	2686.786	25.93	818.9210	2492.5470	32.85
2009-2010	900.6190	3907.8400	23.31	1025.1140	3052.4700	33.58
2010-2011	1265.9500	5187.6680	24.40	1085.8730	3369.7090	32.22
2011-2012	1176.641	5159.7600	22.80	1119.1710	3677.7770	30.43
Mean			24.6280			32.352
S.D.			1.6673			1.1806
C.V.(%)			6.76			3.65

(Source Annual Report of NIBL and SCBNL)

From the above table we can analyze the ratio of NIBL is ranged between 26.70% in year 2007/8 to 22.80 in year 2011/12 with mean ratio of 24.6280 and SCBNL is ranged between 32.68% in year 2007/8 to 30.43% in year 2011/12 with mean ratio of 32.3520 respectively. SCBNL has highest mean ratio than that of NIBL which indicates that they got a better achieving on increasing a net profit by mobilizing on resources of shareholders equity. On the other side, NIBL has lower mean ratio which indicates it less successful in earning a net profit by utilizing a shareholder's equity due to its lower mean ratio.

Although has lower mean ratio than SCBNL. It is successful in earning a net profit with respect to net worth. It has consistency or stability in earning a net profit which is shown by lower c.v. of 3.65%.

Total Interest Earned to Total Assets Ratio

The ratio shows the earning capacity of a bank on its total assets. This ratio exhibits the extent on which banks are successful in mobilizing their working fund to generating income as much as possible. The following table shows the comparative ratio of banks for the different period.

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

Table No. 4.15: Total Interest Earned to Total Assets Ratio

(Rs in million)

Fiscal Year	Banks					
	NIBL			SCBNL		
	Total interest Earned	Total assets	Ratio (Times)	Total interest Earned	Total assets	Ratio (times)
2007-2008	1302.1220	28073.5170	0.0464	1411.9820	28596.6890	0.0490
2008-2009	1907.2610	39405.9590	0.0484	1591.1960	33335.7880	0.0477
2009-2010	3267.9410	53600.0540	0.0610	1887.2210	40066.5700	0.0471
2010-2011	4653.5210	57935.545	0.0803	2042.1090	40213.3200	0.0508
2011-2012	5803.4400	59149.0070	0.0981	2718.6990	43810.5200	0.06210
Mean						0.0513
S.D.						0.0062
C.V.(%)						12.05

(Source Annual Report of NIBL and SCBNL)

From the above table we can analyzed that the ratio of NIBL is ranged between 0.0464 in year2007/8 to 0.0981 in the year 2011/12 with mean ratio of 0.0668. Similarly, SCBNL is ranged between 0.0490 in year 2007/8 to 0.0621 in year 2011/12 with mean ratio of 0.0513 respectively. The higher ratio of NIBL is higher than that of SCBNL which is indicates that the bank has earned more interest. Science c.v. of SCBNL is significantly

lower than NIBL which shows the good consistency in earning interest by mobilizing total assets effectively.

Total Interest Paid to Total Assets Ratio

The ratio is used to measure the percentage of total interest expenses against the total assets. The following are the comparative figures of banks recorded in different periods.

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

Table No.4.16: Total Interest Paid to Total Assets Ratio (Rs in million)

Fiscal Year	Banks					
	NIBL			SCBNL		
	Total interest paid	Total assets	Ratio (Times)	Total Interest paid	Total assets	Ratio (times)
2007-2008	685.5300	28073.5170	0.0244	28596.6890	28596.6890	0.0144
2008-2009	992.1580	39405.9590	0.0252	33335.7880	33335.7880	0.0142
2009-2010	1686.9730	53600.0540	0.0315	40066.5700	40066.5700	0.0136
2010-2011	2553.8470	57935.545	0.0441	40213.3200	40213.3200	0.0143
2011-2012	3620.3370	59149.0070	0.0612	43810.5200	43810.5200	0.0229
Mean			0.0718			0.0159
S.D.			0.0155			0.0039
C.V.(%)			41.58			24.73

(Source Annual Report of NIBL and SCBNL)

The above table shows the comparative analysis of interest paid to total assets. The ratio of NIBL is ranged between 0.0244 in year 2007/8 to 0.0612 in year 2011/12 with mean ratio of 0.0718 and SCBNL is ranged between 0.0144 in year 2007/8 to 0.0229 in year 2011/12 with mean ratio of 0.0159 respectively.

The ratio of NIBL is higher than that of SCBNL. The table reflects that NIBL has higher mean ratio which indicates that it has paid larger interest. Even though NIBL has paid higher interest and but SCBNL has successfully maintained consistency level which indicates its lower c.v.24.73%.

Return on Capital Employed Ratio

A relation between net profit and capital employed is known as return on capital employed ratio . It shows whether the amount of capital employed has been properly used or not.

$$\text{Return on Capital Employed Ratio} = \frac{\text{Net Profit}}{\text{Total Capital Employed}}$$

Table No.4.17: Return on Capital Employed

(Rs in million)

Fiscal Year	Banks					
	NIBL			SCBNL		
	Net profit	Capital employed	Ratio (Times)	Net profit	Capital employed	Ratio (times)
2007-2008	501.3990	12156.3370	0.04125	691.6680	11975.1610	0.0577
2008-2009	696.7320	17000.1290	0.0410	818.9210	14390.1470	0.0569
2009-2010	900.6190	24437.0800	0.0369	1025.1140	17442.7990	0.0623
2010-2011	1265.9500	25673.2830	0.0493	1085.8730	17442.7980	0.0593
2011-2012	1176.641	26265.0090	0.0447	1119.1710	18877.4750	0.0593
Mean			0.0426			0.0592
S.D.			0.0047			0.0040
C.V.(%)			10.97			6.69

(Source Annual Report of NIBL and SCBNL)

The mean ratio of SCBNL is higher than that of the NIBL which indicates that the efficiency of the firm on the utilization of total capital. A higher ratio is an indication of the better utilization of capital employed. Hence , higher ratio is preferable for the company in terms of consistency also SCBNL has successful to maintained which indicates by its significant lower c.v. of 6.69%.

Capital Adequacy Ratio

Capital adequacy ratio indicates strength of base of the institution. The capital adequacy ratios of the sample banks are as follows.

Shareholder's Fund to Total Deposit Ratio

$$\text{Shareholder's Fund} = \frac{\text{Shareholder's Fund}}{\text{Total Deposit}}$$

Table No.4.18: Shareholder's Fund to Total Deposit Ratio

(Rs in million)

Fiscal Year	Banks					
	NIBL			SCBNL		
	Shareholder's fund	Total deposit	Ratio (Times)	Shareholder's fund	Total deposit	Ratio (times)
2007-2008	1878.1240	24488.8560	0.0767	2116.3530	24647.021	0.0859
2008-2009	2686.786	34451.7260	0.0779	2492.5470	29743.9990	0.0838
2009-2010	3907.8400	46698.1000	0.08368	3052.4700	35350.8240	0.0635
2010-2011	5187.6680	50094.7250	0.1036	3369.7090	35182.7210	0.09577
2011-2012	5159.7600	50138.1220	0.1029	3677.7770	37999.2420	0.09679
Mean			0.0890			0.0897
S.D.			0.0136			0.0059
C.V.(%)			15.13			6.60

The above comparative table shows the capital adequacy ratio of both sample banks are fluctuating. The ratio of NIBL is ranged between 0.0767 in year 2007/8 to 0.1029 in year 2011/12 with mean ratio of 0.0890. Similarly, SCBNL is ranged between 0.0859 in year 2007/8 to 0.0967 in year 2011/12 with respectively. The mean ratio of SCBNL is higher than NIBL which indicates the capital base of banks is stronger.

In the same way c.v. NIBL and SCBNL are 15.13% and 6.60% respectively. Therefore the stability in capital strength of SCBNL is good due to lower c.v. of 6.60%.

Shareholder's fund to Total Assets Ratio

$$\text{Shareholder's Fund Ratio} = \frac{\text{Shareholder's Fund}}{\text{Total Assets}}$$

Table No.4.19 : Shareholder's Fund to Total Assets Ratio

Fiscal Year	Banks					
	NIBL			SCBNL		
	Shareholder's	Total assets	Ratio	Shareholder's	Total assets	Ratio

	fund		(Times)	fund		(times)
2007-2008	1878.1240	28073.5170	0.0669	2116.3530	28596.6890	0.0740
2008-2009	2686.7860	39405.9590	0.0682	2492.5470	33335.7880	0.0748
2009-2010	3907.8400	53600.0540	0.0729	3052.4700	40066.5700	0.0762
2010-2011	5187.6680	57935.545	0.0895	3369.7090	40213.3200	0.0839
2011-2012	5159.7600	59149.0070	0.072	3677.7770	43810.5200	0.0839
Mean			0.0769			0.0786
S.D.			0.0107			0.0049
C.V.(%)			13.96			6.23

(Rs in million)

(Source Annual Report of NIBL and SCBNL)

The above table shows that the control over total assets by shareholder's fund is high in SCBNL which is shown by higher mean ratio. The ratio of NIBL is ranged between 0.0669 in year 2007/8 to 0.072 in year 2011/12 with mean ratio of 0.0769. Similarly, SCBNL is ranged between 0.0740 in year 2007/8 to 0.0839 in year 2011/12 with mean ratio of 0.0786 respectively. The lowest recorded ratio of NIBL is indicates that it has control over assets by shareholder's fund. Since SCBNL has lower c.v.(6.23%) which indicates it has more consistency that of NIBL.

4.2 Statistical Analysis

4.2.1 Coefficient of Correlation Analysis:

This tool is used to predict the relationship between deposits and loan and advances, net profit and outsider assets and deposits and investment . Under this study, Karl's Pearson's coefficient of correlation is being used.

4.2.1.1 Correlation between Total Deposits and Loan and advances.

Deposit is the main tool for developing the banking performance of the banks. Likewise loan and advance are the key part of mobilize the collected deposits. The coefficient of correlation between these two variable. For this study, deposit is taken as independent variable (x) and loan and advance are dependent variable (y). The purpose of computing 'r' between these two variable is to justify whether dependent are significant use as loan and advance in proper way or not.

Table No. 4.20: Correlation between Total Deposits and Loan and advances.

(Rs in million)

Fiscal year	Banks			
	NIBL		SCBNL	
	Total Deposit (X)	Loan and Advance (Y)	Total Deposit (X)	Loan and Advance (Y)
2007/8	24488.8560	17769.1000	24647.021	10502.6370
2008/9	34451.7260	27529.3050	29743.9990	13718.5970
2009/10	46698.1000	36827.1570	35350.8240	13679.9550
2011/12	50094.7250	40948.4400	35182.7210	15956.9550
2011/12	50138.1220	41887.6940	37999.2420	18427.2700
r	0.997		0.867	
r ²	0.994		0.752	
S.E.(r)	0.00224		0.111	
P.E.(r)	0.0017		0.0748	
6xP.E.(r)	0.0103		0.4488	
Level of significance	Significant		Significant	

(Refer Annex A-2and A-3)

The coefficient of correlation for both found to be most '1' which indicates there is proportion relationship between the total deposit and loan and advances for both banks. While testing 6xP.E.(e) for both banks found to be significant as the value of ' r ' is greater than 6xP.E.(r) , which implies that there found to be perfect correlation between the deposits and loan and advances. It shows the total deposit and loan and advances are efficiently.

4.2.1.2 Correlation between Total Deposit and Investment

Investment is also a major part of bank to mobilize the collected deposit. By investing in different profitability areas like shares and debenture, government securities bank maximize the profit. There fore it is important to study the relation between the deposit and investment. For this analysis deposit is taken as dependent variable (x) and investment (y) is taken as independent variable . This analysis measures the degree of relationship between these two

variable. Besides this, it will justify whether the deposit are significantly used in proper way or not and whether there is any relationship in between these two components. The following table exhibits the coefficient of correlation (r) between deposit and investment, coefficient of determination (r²), probable error(P.E.r.).

Table No. 4.21: Correlation between Total Deposit and Investment

(Rs in million)

Fiscal year	Banks			
	NIBL		SCBNL	
	Total deposit (X)	Investment (Y)	Total deposit (X)	Investment (Y)
2007/8	24488.8560	6868.6500	24647.021	13553.2330
2008/9	34451.7260	6874.0240	29743.9990	13902.8190
2009/10	46698.1000	7403.1120	35350.8240	20236.1210
2011/12	50094.7250	8635.5300	35182.7210	19847.5110
2011/12	50138.1220	7423.1070	37999.2420	17258.6820
r	0.72		0.87	
r ²	0.518		0.76	
S.E.(r)	0.2156		0.1073	
P.E.(r)	0.1454		0.0724	
6xP.E(r)	0.873		0.4345	
Level of significance	Insignificance		Significance	

(Refer Annex A-4 and A-5)

The coefficient of correlation for NIBL found to be almost ' 1 ' which indicates there is proportion relationship between the deposit and investment for the banks. While testing 6XP.E.(r) for the NIBL , coefficient of correlation is less than 6x P.E.r.But in case of SCBNL found to be significant as the r value of the banks is greater than 6XP.E.(r) which indicates that there is perfect correlation between deposit and investment. This shows that the SCBNL is successful in investment with respect to deposit .

4.2.1.3 Correlation between Loan and Advances and Net Profit

Loan and advances also plays the vital role in earning the profit. By mobilizing the deposit in loan and advances, banks earn the profit. So, it is necessary to study the relation between these two variable loan and advances and net profit. Following table shows the coefficient of correlation (r), coefficient of determination (r^2), probable error between loan and advances and net profit of the banks. For this study loan and advances (x) is taken as independent variable and net profit (Y) is taken as dependent variable.

Table No. 4.22: Correlation between Loan and Advances and Net Profit

(Rs in million)

Fiscal year	Banks			
	NIBL		SCBNL	
	Loan and Advance(Y)	Net profit	Net profit	Loan and Advance(Y)
2007/8	17769.1000	501.3990	691.6680	10502.6370
2008/9	27529.3050	696.7320	818.9210	13718.5970
2009/10	36827.1570	900.6190	1025.1140	13679.9550
2011/12	40948.4400	1265.9500	1085.8730	15956.9550
2011/12	41887.6940	1176.641	1119.1710	18427.2700
r	0.9577		0.8876	
r ²	0.9172		0.7879	
S.E.(r)	0.0370		0.0948	
P.E.(r)	0.0249		0.0639	
6XP.e.(r)	0.1498		0.3838	
Level of significance	Significant		Significant	

(Refer Annex-A-6 and A-7)

The above calculated data shows that the both banks are successful in earning the profit by mobilizing the loan and advances.

4.2.2 Trend Analysis:

The main objectives of the part is to analyze the trend of prospective net profit in future by analyzing the trend of past net profit of the banks. Among the various methods of

determination trend series, the most popular and mathematical method of the least square method. Using this method of least square in the study, it has been tries to analyze the trend of prospective net profit in future by analyzing the trend o past net profit of the banks. Banks utilized the deposit by resealing investment in loan and advances indifferent profitable areas for maximizing the profit. A bank can invest in share and debenture, government securities and provide the loan and advances under different scheme.

The topic will be used to forecast the ratios of total deposit, net profit and investment , net profit and loan and advances of the banks for nest five years on the base of past five years.

The analysis is done under limited factors which are as follows.

)

The economy will remain unchanged as of present stage.

Banks will run as of present position.

The guidelines by NRB for bank will remain unchanged.

The forecast will be true only when the limitations of least square method carried out.

The main assumption is that other factors are consistent.

4.2.2.1 Trend Analysis of Total Deposit

The part if this analysis will analyze net profit to deposit of banks for five years from 2007/8 to 2011/12 and projection for next five years i.e.2011/12 to 2015/16. The following table exhibits the trend values of net profit to total deposit of banks for ten years.

4.2.2.2 Trend Analysis of Total Deposit

The part of this analysis will analyze net profit to total deposit of bank for five years from 2007/8 to 2011/12 and projection for next five years i.e. 2011/12 to 2016/17. The following table exhibits the trend values of net profit to total deposit of banks for ten years.

Table No 4.23: Trend Analysis of Total Deposit

(Rs in million)

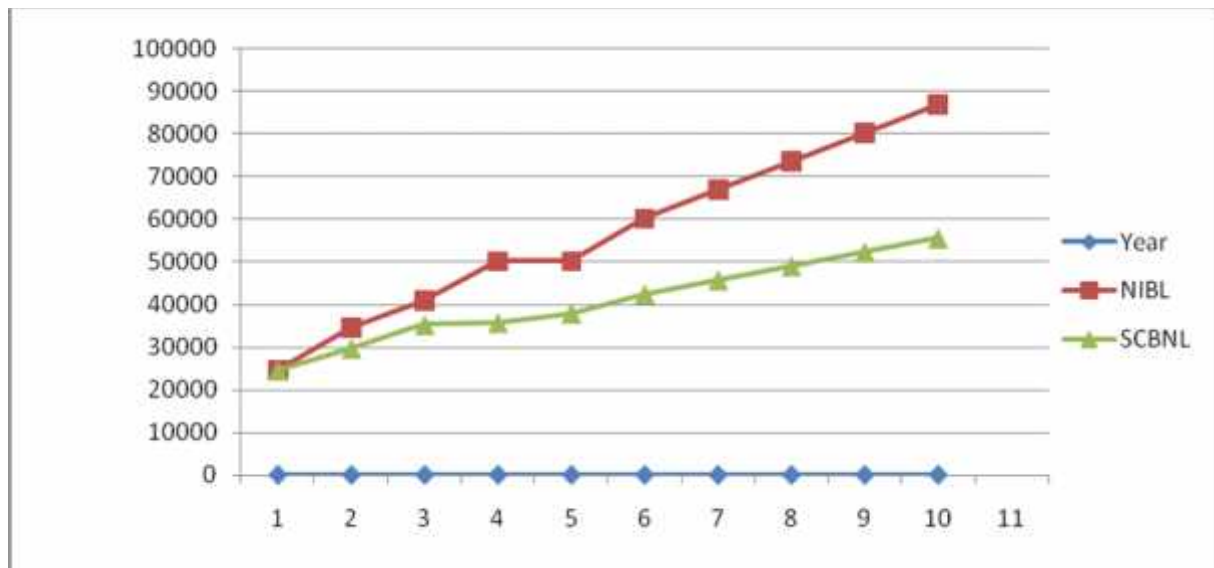
Fiscal year	Banks	
	NIBL	SCBNL
	Total deposit	Total deposit

2007/8	24488.8560	24647.0210
2008/9	34451.7260	29743.3910
2009/10	40791.6210	35350.8240
2011/12	50094.7250	35782.7210
2011/12	50138.1120	37999.2420
2012/13	60075.4500	42527.7700
2013/14	66769.6000	45802.1480
2014/15	73463.7500	49076.5250
2015/16	80157.9000	52350.9020
2016/17	86862.0500	55625.2790

(Refer Annex A -8 and A-9)

Trend Analysis of Total Deposit

Figure.No.-1



The above comparative table exhibits that trend values of both of the bank are in increasing trend. Among the sample banks, NIBL has a higher increasing trend of total deposit in past. The total deposit forecasted for the next five year on the basis of past years of NIBL are, 24488.8560, 34451.7260, 40791.6210, 50094.7250, 50138.1120, 60075.4500, 66769.6000, 73463.7500, 80157.9000, 86852.0500 2011/12 to 2015/16 respectively . Similarly SCBNL total deposit for next five years are 24647.0210, 29743.3910 35350.8240, 35782.7210, 37999.2420, 42527.7700, 45802.1480, 49076.5250, 52350.9020, 55625.2790 from 2011/12 to 2016/17.

4.2.2.3 Trend Analysis of Loan & Advance

This analysis will show the picture a trend of net profit to loans and advance of banks for the study period and then forecast for following five years . The trend value of net profit to loan & advances of the banks are presented in the following table:

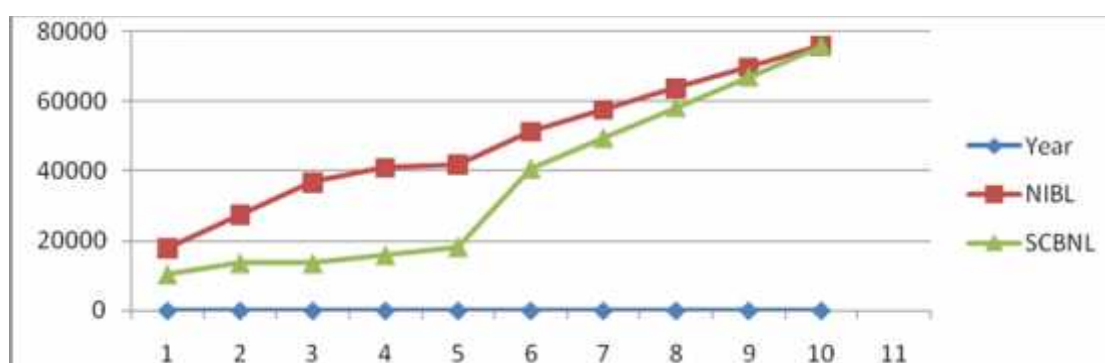
Table No 4.24: Trend Analysis of Loan & Advance (Rs in million)

Fiscal year	Banks	
	NIBL	SCBNL
	Loan and Advance	Loan and Advance
2007/8	17769.1000	10502.6370
2008/9	27529.3050	13718.5970
2009/10	36827.1570	13679.9550
2011/12	40948.4400	15956.9550
2011/12	41887.6940	18427.2700
2012/13	51489.2350	40807.6530
2013/14	57654.8670	49591.1890
2014/15	63820.4990	58374.7260
2015/16	69986.1310	67158.2630
2016/17	76151.7630	75941.7990

(Refer Annex A -10 and A-1)

Trend Analysis of Total Deposit

Figure No-2



The comparative table shows that both banks an increasing trend of net profit with respect to loan and advance . Among them NIBL has higher trend of loan and advance than SCBNL.

4.2.2.4 Trend Analysis of Total Investment

The following table are the analysis for trend of net profit to total investment and prediction of total investment for next five year according to base of past five year analysis.

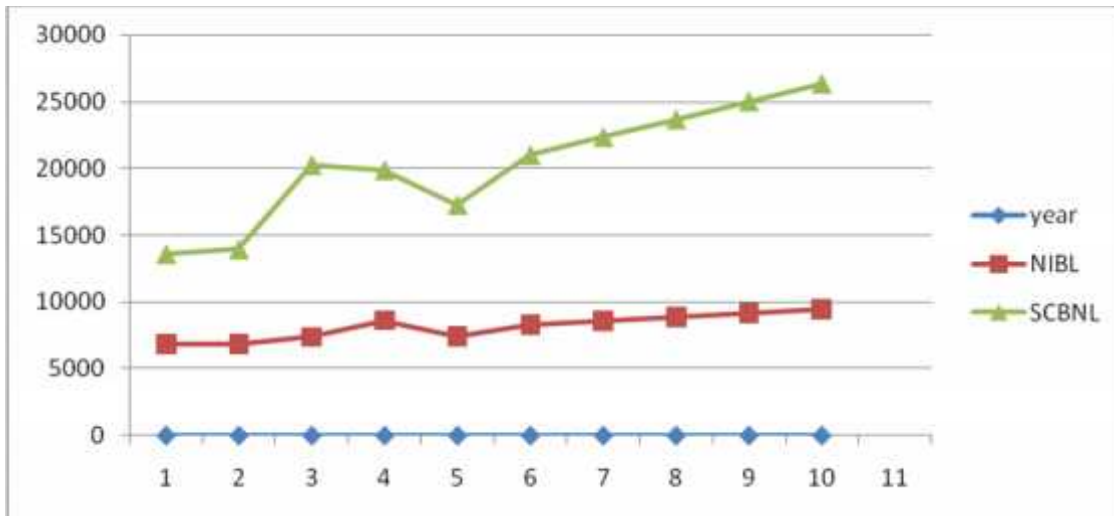
Table No 4.25: Trend Analysis of Total Investment (Rs in million)

Fiscal year	Bans	
	NIBL	SCBNL
	Investment	Investment
2007/8	6868.6500	13553.2330
2008/9	6874.0240	13902.8190
2009/10	7403.1120	20236.1210
2011/12	8635.5300	19847.5110
2011/12	7423.1070	17258.6820
2012/13	8302.0110	20979.85
2013/14	8589.0530	22318.109
2014/15	8876.0950	23656.368
2015/16	9163.1370	24994.6270
2016/17	9450.179	26332.886

(Refer Annex A -12 and A-13)

Trend Analysis of Total Investment

Figure No-3



The comparative table shows that both banks an increasing trend of total investment with respect to net profit . Among them SCBNL has higher trend of total investment than NIBL.

4.2.3 Simple Regression Analysis

Regression Analysis is useful tool in statistical analysis which should how the variable or related .In regression analysis one variable is considered to be unknown and other to be known variable .from the known variable we can estimate the value of unknown variable .so ,regression is said to be measures of average relationship between units of the data .For the study we can fixed to only two variable and this kind of regression is called simple regression.

4.2.3.1 Regression analysis between Net profit and total deposit:

The focal point of this analysis is to determined the relation between net profit and total deposit .Obviously, it seems that as total deposit increase the net profit of the banks need to increase .So in this analysis net profit is considered to be dependent variable and total deposit as independent variable .the relation between net profit and total deposit can be present mathematically as below :

$$N.P = a + b T.D$$

Where,

N.P = Net profit

T.D = Total deposit

Table No.4.26 Regression analysis between net profit and total deposit.

(Rs in million)

S · N	Ban ks	Inter cept(a)	Regressio n Coefficien t(b)	R	T- tes t
1	NIB L	22.8 692	22.1303	0.5 2	1.0 53 *
2	SC BN L	6.17 14	30.85714	0.8 7	3.0 56 *

(Refer Annex A-14 and A-15)

Note*represent that result are significant at 5 % level of significant.

The above table exhibit the estimation of net profit on the bank on total deposit. The regression coefficient of net profit and total deposit of both banks are positive which determines that increase in the total profit ultimately increases in net profit. The coefficient of co-relation fund to be highest incase of SCBNL almost '1' which indicates proportionate change in net profit as increase or decrease in total deposit for the bank. NIBL has lower correlation in comparison to SCBNL. But it is also almost '1' which indicates proportionate change in net profit as increase or decrease in total deposit of the bank . In case of t test the variable of the banks got significant at 5% level of significant .this shows that there is high correlation between net profit and total deposit of NIBL and SCBNL.

4.2.3.2 Regression Analysis between net profit and loan and advance

The analysis determines the relation between net profit and loan and advance . As loan and advance increase the net profit of banks need to increase .So ,in this analysis net profit is consider to be dependent variable and loan and advance is independent variable . The relation between net profit and loan and advance can presented mathematically as below:

$$N.P = a + b.L.A$$

Where,

N.P = Net profit

L.A = Loan and advance

Table no 4.27: Regression analysis between net profit and loan and advance .

S . N	Bank s	Interc ept(a)	Regressio n Coeffic ient(b)	r	T- test
1	NIB L	5.69	30.12	0 . 9 2	4.06 6*
2	SCB NL	1.03	14.167	0 . 7 9	2.23 *

Refer Annex A-16 and A17)

Note*represent that result are significant at 5 % level of significant.

The above table is a comparative result of regression for both banks the regression coefficient of net profit and loan and advance of both sample banks are positive which determine that increase in the loan and advance ultimately increases net profit . The coefficient co-relation fund to be highest in case of NIBL almost '1' which indicates proportionately change in net profit as increase or decrease in loan and advance where as SCBNL has lower correlation between net profit and loan and advance .While testing the hypothesis on the basis of t-test the variable are significant . which indicates as the got at 5% significant level . This shows that there was high correlation between net profit and loan and advances .

4.2.3.3 Regression analysis between net profit and investment

This analysis determined the relation between net profit and investment . As investment increases the net profit of the bank need to increase . So, in this analysis net profit is

considered to be dependent variable and investment as independent variable .The relation between net profit and investment can be presented below .

Table No.: 4.28 Regression analysis between net profit and investment

S. N	Bank s	Intercept (a)	Regression Coefficient(b)	r	T- test
1	NIBL	5.75	1.8	0.70	1.698*
2	SCB NL	9.3	8.02	0.84	2.68*

(Refer Annex A-18 and A-19)

Note*represent that result are significant at 5 % level of significant.

The above comparative represent the regression analysis between the net profit and investment . The regression coefficient of net profit and total investment for both banks are positive which indicates that increase in investment ultimately increase in net profit of the banks.the coefficient of correlation of SCBNL fund to be highest that is almost '1' which indicates proportionately change in net profit as increase or decrease in investment of the bank . NIBL has lower correlation in respect to SCBNL .Since SCBNL has higher value than t –test value it has got significant at 5% level while testing hypothesis , where as NIBL did not got the significant between net profit and investment .This represents that there is a high correlation between the net profit and total investment for SCBNL and low correlation of NIBL.

4.3 Major Findings of the Study:

The main finding of the study are carried out on the basis of the analysis of financial data of banks which are as follows.

4.3.1 LIQUIDITY RATIO

During the five year study period of the sampled banks the current ratio found to be in fluctuating trend. It is well known that the standard current ratio is 2:1. Among sample banks the current ratio of SCBNL dominates the respective current liabilities which indicates that SCBNL is capable in paying the current obligation. Therefore SCBNL has a highest liquidity ratio than NIBL. NIBL has low current ratio, but it does not mean that it failed to maintain the liquidity position. From point of view of working policy. NIBL is found to be very much aggressive. However average of both banks shows the satisfactory level of current ratio.

NIBL found to be in better position to maintain the cash and bank balance ratio than SCBNL. It actually mean that it can meet the daily cash requirement to make payments of the customer. Both of the banks have a highly fluctuation ratio during the study period.

As we analyze the loan and advances to current ratio the mean ratio of NIBL is higher than that of SCBNL which indicates it has given more loan and advances. It indicates that the banks has successful in utilization of its current assets by making investment in order to maximize its profit. The mean ratio of SCBNL is comparatively low to NIBL which indicates the lower utilization of current assets which is not worthy to the banks.

From the above results it can be said that the liquidity position of NIBL found to be comparatively better than SCBNL. Although SCBNL has a satisfactory level of liquidity position due to their aggressive working policy.

4.3.2 LEVERAGE RATIO OR CAPITAL STRUCTURE RATIO

The debt equity ratio of the banks are in higher fluctuation trend. The mean ratio of NIBL is higher than SCBNL. Which indicates that more of the funds invested in the business are provided by the outsider not the owners which is more risky. But comparatively SCBNL has lower debt-equity ratio which shows that more funds invested in the business are provided by the owner. More over SCBNL has lower c.v. which indicates it has successfully able to maintain consistency level to NIBL.

Debt-assets ratio of both banks are very consistent. The mean ratio of NIBL is negligible higher in comparison to SCBNL. Although NIBL has more consistency due to its lower c.v.. This ratio shows the proportion of debt out of its total assets. SBBNL has lower debt proportion as its mean ratio is lower than NIBL.

4.3.3 ACTIVITY RATIO OR ASSETS INVESTMENT MANAGEMENT RATIO

The loan and advances to total deposit ratio of both banks found to be at satisfactory level and maintain the good consistency in ratio. However NIBL has higher mean ratio it shows that NIBL's liquidity position with respect to this ratio is more satisfactory than SCBNL. As the c.v. of NIBL is also lower than SCBNL which indicates the more consistency. The both sample banks are successful to mobilize the fund as loan and advances with respect to total assets. However comparatively during the five year of study period NIBL has a higher mean ratio than SCBNL which indicates that they are the better investor. As concern to consistency, NIBL has maintain better level than SCBNL which is indicated by as lower c.v. of 4.55%.

The proportion of mobilizing the deposit in investment is measured by the investment to total deposit ratio. This mean value of SCBNL the investment to total deposit is higher than NIBL. which indicates that it has mobilized the deposit effectively .Moreover NIBL is also failed to maintain consistency level in comparison to SCBNL very significantly which is 10.79% Vs 27.79%. SCBNL has higher investment in performing assets which shows by its higher mean value. Performing assets are the assets which are invested for short- term investment short term investment plays the vital role for .Working capital need and short term needs . As concern of consistency level SCBNL has maintained better level than NIBL.

The performing assets to total debt ratio measures the proportion of amount invested of outsiders in performing assets .SVBNL has the higher mean value which indicates that large amount of investment in performing assets of outsiders than NIBL. Moreover SCBNL has effectively maintained its consistency level than NIBL which is indicated by its lower c.v.

As we compare the five year study period of both mean value of SCBNL found To be higher than NIBL which indicates that it has spend larger amount an employees .As concern of stability NIBL has effectively maintained better consistency level than SCBNL which indicates it lower C.V.

From above finding it shows that banks are successful in on balance sheet utilization as well as off balance sheet operation .However NIBL found a best in mobilizing the assets to the pre table sectors.

4.3.4 PROFITABILITY RATIO

The following findings are derived from the profitability ratios of sample banks.

Net profit to total deposit ratio of SCBNL is higher than NIBL which is indicated by higher mean values. As concern of consistency level of SCBNL has maintained successfully better level than NIBL which is indicated by lower c.v..

The both sample banks are able to earn the profit on total assets. As the mean value of net profit to total assets ratio of SCBNL is higher than NIBL the bank is in better position. The c.v. of SCBNL is lower than NIBL which indicates it has maintained successfully its consistency level. The consistency level of this ratio indicates consistency of earning on total assets which is very important for banks.

The mean ratio of net profit to net worth of SCBNL is higher than NIBL, which indicates that earning level of SCBNL is higher. As a consistency level, SCBNL also maintained its consistency level due to its lower c.v.

Even though all sample banks seem to earn the interest on total assets, NIBL has successful in earning the higher interest as view of mean values.

SCBNL deem to be successful to collect its assets from less expensive of fund in comparison to NIBL as the mean value is lower. In terms of consistency, SCBNL has maintained better consistency level than NIBL in spite of higher interest payment sources of fund.

SCBNL has higher mean value of return on capital employed ratio which indicates that the capital employed has been used properly but NIBL has lower. Moreover the consistency level maintained by SCBNL is better than NIBL which is indicated by its significantly lower c.v..

From above findings we can conclude that SCBNL has a consistency in earning the net profit and expenses. SCBNL has also earned a competitive level of earning and maintained its consistency level but it is failed to maintain as effectively maintained by NIBL.

4.3.5 CAPITAL ADEQUACY RATIO

The capital adequacy ratio of SCBNL is higher than NIBL which is shown by its higher mean value of shareholder's fund to total deposit ratio. Moreover, it has also maintained better level of consistency than NIBL which is indicated by its lower c.v..

SCBNL has achieved the higher shareholder's fund to total assets ratio , which mean they have more assets out of the shareholder's fund. The c.v. percentage of SCBNL is lower than NIBL which shows that it has maintained successfully its consistency level.

4.3.6 COEFFICIENT OF CORRELATION

The following statement can be concluded by correlation analysis.

The positive correlation between deposit and loan and advances are found of both banks. The correlation between the deposit and loan and advances are perfect as there is significant between them. It means that the both banks provided the loan and advances from its deposits. Banks are successful in mobilizing the deposit as loan and advances.

There is the perfect correlation between the deposit and investment of both banks. It shows that both sample banks have effectively mobilize its deposit on investment. In another word, it can be said that investment is depends upon the deposit.

Both banks are successful in earning the net profit from its investment which means that there is a positive correlation between the investment and net profit. The positive correlation indicates the mobilizing the investment to earn the profit.

The both sample bank s are successful in earning the net profit by mobilizing the loan and advances. The correlation between the loan and advances and net profit are found to be perfectly positive.

4.3.7 TREND ANALYSIS

Trend analysis is for five year for projecting future results. The trend analysis is done on same basis assumption that will continue in the future. The trend analysis results are as follows:

The past trend of total deposit for both banks is in increasing trend. However NIBL has required for the higher trend value which shows that NIBL are more successful in mobilizing the deposit in comparison to SCBNL.

The both banks have increasing trend of the loan and advances. Even though SCBNL has low increasing trend value they are successful in mobilizing the loan and advances to different productive and profitable sectors. On the basis of the past trend the future trend of loan and advances will continue.

Although the both sample banks has increasing trend of the investment of SCBNL has recorded the higher investment value which is in increasing trend. This shows that SCBNL is successful in mobilizing the investment than NIBL.

4.3.8 SIMPLE REGRESSION ANALYSIS

)

The

both some banks have a positive regression coefficient. This represents that as the total deposit changes the net profit also change in some proportion

The regression coefficient of net profit and loan and advances of both banks are positive. There is a high correlation and significance between the net profit and loan and advances in NIBL and SCBNL which indicates that if loan and advances net profit also increases and vice-versa.

NIBL and SCBNL both has got the positive correlation coefficient between the net profit and investment .There is highly correlation between the profit and investment of both banks. This represents that if investment increases net profit also increases and vice-versa.

Chapter -5

Summary, Conclusion And Recommendations

5.1 Summary

Industrialization is an important factor for achieving the basic objective of a country's economic and social progresses. Industrialization not only provides necessary products and to the community but also create employment opportunities. Industrial development thus has a multiplier effect on the economy. Banking industries have been regarded as one of the component if economy. It transfers the scattered saving of the public into various productive sectors. Economic activities remain halt in absences of banking industries as it plays the role of catalyst for economic development if the country in the developing country where there prevail unorganized transactions. It helps to enhance economic activities of the country by providing capital fund for the smooth operation of business activities, create employment opportunities, investing agriculture, industry. At present there are altogether 32 commercial banks operating in the country among which NIBL and SCBNL has occupied wide range of the business due to access to most of the corner of the country but due to prevailing political crisis they are not being able to meet their objectives to reach to every corner of the country. Due to increasing competition banks are forced in innovate new products to their customer and they are also shifting from traditional service procedure to various sophisticated services like ATM cards, debit cards, credit cards , housing loan , educational loan, vehicle financing.

Economic development of a country cannot be imagined without the development if commerce and industry. No doubt, banking promotes the development of commerce to its extremes as banking itself is the part of commerce. Though the economic growth was as snail speed in earlier year, it had cough its full sailing with the restoration of democracy in the country. These days Nepal has been facing severe economic problem due to the unrest condition. In this study the objective functions, policies and strategies of foreign participated private commercial banks have been emphasized and analyzed of their financial performance. Her the main finding of the study is the financial performance of these two Sample banks have been presented. The financial data, statement of five consecutive year i.e.2007/8 to 2011/12 has been examined for the purpose of the study. The study is mainly on the primary and secondary data, which have been processed first and analyzed comparatively. From this analysis of financial performance of the banks the following finding are made.

Financial analysis is the process of determining the significant operation and financial characteristics of a firm from accounting data. It shows the relationship between the various components which can be found in balance sheet and profit and loss account. The analyzed statements contain those information which is useful for management, shareholders, creditors, investors, depositors etc. As in other industries banking industries also need financial analysis, as it is crucial for evaluating and analyzing the performance of the same company.

5.2 Conclusion

The study completely based on secondary data accumulated from websites. The study covers only two banks NIBL and SCBNL among various banks but the sample banks are the leading banks among commercial banks. The study is based on five fiscal year from 2007/8. Research methodology followed to achieve the objectives of the study and which constitute research design, sources of data, population and sample, data collection process and method of analysis. Moreover, financial and statistical tools has been used according to the requirement to achieve the targeted results.

The uncontrollable growth in number of banks within a short span of time has raised reasonable doubts to the common people. Banks, insurance companies and other companies are directly playing parts in the country to establish their banking with fully or partly repatriation facilities. Banks helps to mobilize the small saving collectively to the huge capital investment though banking is considered as the platform of money markets and capital markets, commercial banks basically help to promote the money market. Because of qualitative managerial skills, at most customer satisfaction, objective to use advanced technology, private commercial banks have been able to attain their objectives within short span of time.

5.3 Recommendation

From the above finding and analysis it is clear that both sample banks are not strong in all fields. One is stronger in profit making but another failed maintain the consistency, weaker in mobilizing their deposits, concerned into very limited diversified investment etc. Therefore the following recommendation should be brought into highlight to overcome inefficiency, weakness and develop present fund mobilization and investment policy of the banks. Banks should maintain the liquidity ratio for daily cash transaction. Bank should not invest all the deposits as loan and advances. According to the policy of NRB some percentage should kept in the bank for fulfilling the demand of customer. The standard liquidity ratio is 2:1. The depositors may demand the money at time so; banks should be ready at any time. In this research none of sample banks has the standard ratio due to their aggressive working capital policy. Therefore both sample banks should modify their working capital policy to maintain the standard ratio. If sample banks cannot maintain the ratio they may failed to maintain the daily cash transaction.

As leverage ratios indicates both the banks are suggested to increase their debt financing so that profit will be generated through the utilization of deposits. SCBNL has less mobilization of total deposit to loan and advances than NIBL. The purpose of loan and advances is to generated income for the banks. So SCBNL should increase a loan and advances to different productive sectors.

NIBL is less successful in mobilizing its deposits by investing in different productive sectors. Investment is the key to earn a profit. Therefore, they should invest in different productive sector by utilizing the different types of deposit. Since there consistency level is very high they should maintain stability in total investment.

Profit is key of success of any business. The bank also cannot survive without the profit. So, they should keep in the mind for profit maximization. But in long-term business bank also should be concern with the shareholder's wealth maximization as they are investor of the bank. Over the study period, NIBL is successful to earn more profit than SCBNL with consistency in profit. So it is recommended to SCBNL that it may cut down its operating expenses or can imply other profit maximization tools.

NIBL should maintain stability in earning interest since they have greater variation in earning interest. Since SCVNL have low interest earning variation they should increase an interest earning because it will directly effect to the net profit.

NIBL paid a higher interest than SCBNL which mean that they used more creditors' funds or paid higher interest rate in investment. So they need to use equity fund rather than debt or should pay a lower interest rate. Although the interest paid by SCBNL and it also maintain its consistency level.

The personnel expenses of NIBL is lower than SCBNL but it maintain its consistency level.

Majority of private commercial bank have been found to be profit oriented, ingoing their social responsibility, which is not a proper strategy to sustain in long run. So, other the banks are suggested to their services even in the rural areas providing special loans to the deprived and priority sectors, which might further intensify the goodwill of the banks in future.

The overall investment of the bank should be concentrated on productive sectors such as business and industrial loan rather consumer product such as hire purchase and housing loan. Because industrial and business sectors will create the employment opportunity which is necessary for capital formation and economic growth.

The economic liberalization has made the entire bank to determine the own interest rate. But nowadays due to unhealthy competition the spread between the deposit and lending interest has higher than NRB directives. If the depositors interest rate is very low then depositors may not interest to deposit the saving. Therefore the spread shouldn't be appropriate.

Bank should evaluate its investment portfolio every year. Investment portfolio must be balanced in each sectors according to the NRB rules and company's self policy. It should be calculated co-efficient and regression among deposit , investment and return of the company.

Nepal Rastra Bank should clearly define its role and monitoring for the efficient operations of banks so that can use the facilities as much as possible. Besides that, NRB should open to all, flexible and strong supervision rather than imposing rules and regulation only

. The success rate of banking mainly dependent upon the banking awareness by the general public. Unless they find a convincing about their saving as well as new approach of investment, it is impossible to make live for a bank. Therefore there should be the awareness program, regularly conducted in terms of seminars or workshops from well experienced personnel such as top executive from banks and concerned regulating authorities. Thus it will exchange the ideas and share the grass root problems. On the basis of this feedback information, regular changes or implementation of new rules and regulations can be easily carried out. Nepal Rastra Bank should also encourage frequent training to new entrants to provide orientations on the conceptual dimension and practical aspects of operation of the banks.

Five Year Comparison Balance Sheet of Nepal Investment Bank Limited.

Nepal Investment Bank Limited

Five year comparative Balance Sheet

(Rs in million)

Particular	Fiscal year 2006-2007	Fiscal year 2007-2008	Fiscal year 2008-2009	Fiscal year 2009-2010	Fiscal year 2010-2011

Total capital & liability	28073.517	39405.959	53600.054	57935.545	59149.007
Paid up Capital	801.353	1203.915	2407.069	2409.098	3011.372
Reserve and surplus	1076.771	1482.871	1500.771	2176.295	2148.388
Debenture and Bond	-	-	1050.000	1050.00	1050.000
Borrowing	800.00	1050.00	38.800	37.315	280.764
Deposit	24488.856	34451.726	46698.100	50094.725	50138.122
income Tax Liability	-	-	38.297	37.195	-
Other Liabilities	906.539	1217.446	1867.017	2130.917	2520.361
Total Assets	28073.517	39405.959	53600.054	57935.545	59149.007
Cash and Bank Balance	2441.514	3754.924	7918.004	6815.890	8140.371
Money at Call and Short Notice	-	-	-	-	150.000
Investment	6868.650	6874.024	7403.112	8635.530	7423.107
Loan and Advances	17769.100	27529.305	36827.157	40948.440	41887.694
Fixed Assets	759.456	970.092	1060.752	1136.247	1108.448
Non Banking Assets(net)	-	-	.375	-	-
Other Assets	234.797	277.597	390.653	399.438	439.388

Sources: Nepal Investment Bank Limited Annual Report.

Five Year Comparative Profit & Loss Account of Nepal Investment Bank Limited.

Nepal Investment Bank Limited

Five Year comparative Profit & Loss account

(Rs in million)

Particular	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Interest income	1584.987	2194.275	3267.941	4653.521	5803.440
Interest expenses	(685.530)	(992.158)	(1686.973)	(2553.847)	(3620.337)
Net Interest income	899.457	1202.117	1580.968	2099.674	2183.103
Fee, Commission and Discount	163.899	215.292	262.792	242.886	269.429

Other Operating Income	114.096	167.953	87.575	168.313	152.985
Foreign Exchange Gain\ loss	135.355	165.839	185.327	224.057	228.076
Total Operating Income	1312.807	1751.201	2116.662	2734.930	2833.594
Staff expenses	(145.371)	(187.150)	(225.721)	(279.851)	(326.543)
Other Operating Expenses	(243.431)	(313.154)	(413.884)	(433.596)	(456.057)
Operating Profit Before Provision	9240.005	1250.970	1477.056	2021.482	2050.994
Provision for Possible Losses	(129.719)	(135.989)	(166.201)	(93.057)	(267.331)
Operating Profit	7942.286	1114.908	1310.855	1928.425	1783.662
Non Operating Income/expenses	1.426	7.048	2.953	10.606	8.396
Write Back of Provision for possible Losses Shown as Writeback	-	-	114.653	50.00	106.634
Profit from Regular Activities	795.712	1121.956	1428.461	1989.032	1898.693
Extra Ordinary Income / Expenses	-	-	-	-	(52.861)
Profit before Bonus and Taxes	795.712	1121.956	1428.461	1989.032	18454.832
Provision for Staff Bonus	(72.338)	(101.996)	(192.860)	(180.821)	(167.803)
Provision for Tax	(221.977)	(323.229)	(397.982)	(542.261)	(501.388)
Net Profit/ Loss	501.399	696.732	900.619	1265.950	1176.641

Sources: Nepal Investment Bank Limited Annual Report.

Five Year Comparison Balance Sheet of Standard Chartered Bank Nepal Limited.

Standard Chartered Bank Nepal Limited

Five year comparative Balance Sheet

Rs in million

Particular	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
------------	-----------	-----------	-----------	-----------	-----------

Assets					
Cash and Bank Balance	2021.021	2050.243	3137.164	1929.307	2975.795
Money at Call and Short Notice	1761.152	2197.538	2055.549	1669.460	4280.888
Investment	13553.233	13902.819	20236.121	19847.511	17258.682
Loan and Advances	10502.637	13718.597	13679.757	15956.955	18427.270
Fixed Assets	125.591	117.272	137.293	118.540	106.071
Other Assets	633.055	1349.319	820687	691.547	751.812
Total Assets	28596.689	33335.788	40066.570	40213.320	43810.521
Liabilities					
Borrowing	400.000	-	300.000	-	350.000
Deposit	24647.021	29743.999	35350.824	35182.721	37999.242
Other Liabilities	1433.315	1099.242	1363.277	16660.889	1783.500
Total Liabilities	26480.336	30843.241	37014.101	36843.610	40132.743
Shareholders Fund					
Paid Up Capital	413.255	620.784	931.966	1398.484	1610.168
Proposed Bonus Shares Reserve	206.627	310.392	465.983	209.773	-
Reserve(including exchange reserve)	991.746	1178.084	1415.025	1731.489	2023.202
Undistributed Profit	504.725	383.287	239.495	29.965	44.407
Total Shareholders Fund	2116.353	2492.547	3052.470	3369.709	3677.777

Sources: Standard Chartered Bank Nepal Limited Annual report.

Five Year Comparative Profit & Loss Account of Standard Chartered Bank Nepal Limited.

Standard Chartered Bank Nepal Limited

Five Year comparative Profit & Loss account

Rs in million

Particular	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
------------	-----------	-----------	-----------	-----------	-----------

Interest income	1411.982	1591.196	1887.221	2042.109	2718.699
Interest expenses	413.055	471.730	543.787	575.741	1003.100
Net Interest income	998.927	1119.466	1343.435	1466.369	1715.599
Fee, Commission and Discount	212.207	276.432	288.031	338.298	321.771
Other Operating Income	28.785	32.594	33.191	34.479	36.753
Foreign Exchange Gain\ loss	309.087	345.653	427.468	458.564	387.134
Total Operating Income	1558.006	1774.145	2092.125	2297.710	2461.257
Staff expenses	199.778	225.256	253.056	312.964	365.986
Other Operating Expenses	228.451	230.571	276.327	295.305	305.215
Operating Profit Before Provision	1129.776	1318.318	1562.743	1689.441	1790.055
Provision for Possible Losses	36.809	69.885	56.635	76.974	82.739
Operating Profit	1092.968	1284.432	1506.108	1612.467	1707.316
Non Operating Income/expenses	9.492	1.683	22.098	36.268	6.445
Write Back of Provision for possible Losses Shown as Writeback	20.160	90.635	101.075	58.293	67.159
Profit from Ordinary Activities	1122.620	1340.750	1629.282	1707.028	1780.921
	(4.915)	(28.039)	(15.356)	(17.024)	(22.765)
Extra Ordinary Income / Expenses	1117.705	1312.710	1613.926	1690.004	1758.156
Profit before Bonus and Taxes	101.610	119.337	146.721	153.637	159.832
	324.427	374.452	442.091	450.496	479.153
Provision for Staff Bonus	691.668	818.921	1025.114	1085.873	1119.171
Provision for Tax					
Net Profit/ Loss					

Sources: Standard Chartered Bank Nepal Limited Annual report.

BIBLIOGRAPHY

A/Books:

Arawal, R.D, (2008)"*organization and management*", Tata mc Graw Hill publishing limited.

Bajracharya and Bhattarai,(2004), "*corporate finance Management*",Buddha achademic private Ltd.

Dongol,R .M ,(2063),*Principle of Accounting*, Asmita publication

Edward W.Reed,Richard v.cotter.Edward k.Gil and Richard k,smith,(1976) ,*commercial Banking* prentice Hall,inc,Engle wood chief New jersey

Goyal S.N and man Mohan(1997),"*principle of Management Accounting* ",sahiya Bhawan Agra

Hampton,J.J,(1998),"*financial Decision Making*", Prentice Hall of Indiapvt.Ltd

Jain, premila,(1996) *Financial management*, pointer publishers jaipur,India

Kothari, KC,(1984),*Quantative Techniques* ,Publishing House Pvt.ltd ,New Delhi

Myer J.N.,(1979),*financial statement analysis* Englewood, clifs prentice Hall

Pandey, I.M. *financial analysis*.

Pandey, I.M., (1979) *financial management*

Schwartz man, Sylvan D. and ball ,Richard E., (1984), *Elements of financial analysis* 2nd Edition , van Host Rand Reidhokd company inc, New York

Sharma, p. K and Chaudhary ,A. K, (2065), "*Statistical Methods*" , Khanal Publication.

Webster's *New Collegiate Dictionary* 8th edition ,Spring field mass G and C marrin 1975

B /Thesis / Journals

Annual Report of Nepal Investment Bank Limited, 2010/11.

Annual Report of Standard Chartered Bank Nepal Limited, 2010/11.

Adhikari, D.J., (2001), *A comparative study of financial performance of NIBL and EBL* unpublished master Degree Thesis T.U.

Bohara, Bhojraj, (1992), "*A comparative study of the financial performance of NABIL and NIBL*", unpublished master Degree Thesis T,U.

Bhusal, Manisha, (2004), "*Financial performance analysis of commercial banks in Nepal in Nepal the framework of Comel (A comparative study of Kumari Bank Ltd and Machhapuchhre Bank)*" unpublished Master Degree Thesis T.U.

Bhattari, Bimala ,*A study on fund mobilization comparative study of Himalayan Bank Ltd, Everest Bank Ltd.and Nepal Investment Bank Ltd.*

Ghimere,pratikshya ,(2008),*A thesis entitled Financial performance of joint venture banks (with reference to SCBNL and NABIL bank)* unpublished master Degree thesis T.U.

Ghimere,LN.,(2000),*A comparative study of financial performance of HBL and NSBIBI* un published Master Degree thesis T.U.

KC, Bhadrakali ,(2011), *A comperative study of financial performance of Kumari Bank Ltd. And Nepal Investment Bank Ltd.,unpublished thesis ,T.U.*

Sangel,Rakesh,(2005), *A Thesis entitled comparative Analysis of financial status & performance evaluation of HBL and NABIL bank:unpublished* Master Degree thesis

Kishi, D. L.,(1996) ,*The changing face of the Banking sector and HMGN Recent Budgetary Policy Nepal Bank, Patrika ,V0125 .*

Madhura jeff,(1989), *Bank management ,financial market and institutes* west publishing company st.Poul.

Morrif, F.Latin , *A merica's Banking system in 1980 world bank discussion paper budgetary policy firms .*

Poudel N.P,(2053) *Financial statement analysis and approach to evaluate Banks performance* NRB samachar.

Pradhan, Radheshyam,(1994), “*Financial management practice in Nepal*” Vikas Publishing house Pvt.Ltd.,New Delhi.

Pillai ,R.S.N and Bagavathi ,*Advanced Accountig* ,2nd Edition ,konurk Publisher Pvt.Ltd,Delhi

Rimal, B.N.,(2053),*Building Effective financing system NRB*, samachar .

Shrestha ,Anita ,(2007),A thesis entiled *financial performance Analysis of commercial banks of NIBL and NABIL* unpublished Master Degree thesis T.U.

Shretha,suita,(2055)”*lending operation of commercial Banks of Nepal and its impact on GDP*”. The business of Nepal, T.U. Kirtipur.

Shretha,M.K.(2047) ,*Commercial Bank comperative Performance Evaluation* karmachari sanchaykosdh Kathmandu.

ANNEX A-12

Trend Analysis of Total Deposit

For NIBL

Fiscal year	Deposit(y)	$x=X-2008/9$	x^2	xy
2007/8	24488.8560	-2	4	-48977.712
2008/9	34451.7260	-1	1	-34451.726
2009/10	46698.1000	0	0	0
2010/11	50094.7250	1	4	50094.725
2011/12	50138.1220	2	1	100276.220
	$\sum y = 199965.04$	$\sum x = 0$	$\sum x^2 = 10$	$\sum xy = 66941.507$

Since,

$$a = \frac{\sum y}{N} = \frac{199965.04}{5} = 39993$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{66941.507}{10} = 6694.151$$

Putting the value of a and b in fitted trend line ,

$$Y = 39993 + 6694.151x$$

$$\text{Total deposit for the year 2013/14} = 39993 + 6694.151x3 = 60075.45$$

$$\text{Total deposit for the year 2014/15} = 39993 + 6694.151x4 = 66769.60$$

$$\text{Total deposit for the year 2015/16} = 39993 + 6694.151x5 = 73463.75$$

$$\text{Total deposit for the year 2016/17} = 39993 + 6694.151x6 = 80157.90$$

$$\text{Total deposit for the year 2017/18} = 39993 + 6694.151x7 = 86852.05$$

ANNEX- A-13

Trend Analysis of Total Deposit

For SCBNL

(Rs in million)

Fiscal year	Deposit(y)	$x=X-2008/9$	x^2	xy
2007/8	24647.021	-2	4	-49294.04
2008/9	29743.9990	-1	1	-29743.391
2009/10	35350.8240	0	0	0
2010/11	35182.7210	1	4	35782.721
2011/12	37999.2420	2	1	75998.48
	$\Sigma y = 163523.199$	$\Sigma x = 0$	$\Sigma x^2 = 10$	$\Sigma xy = 32743.77$

Since,

$$a = \frac{\Sigma y}{N} = \frac{163523.199}{5} = 32704.64$$

$$b = \frac{\Sigma xy}{\Sigma x^2} = \frac{32743.77}{10} = 3274.377$$

Putting the value of a and b in fitted trend line ,

$$Y = 32704.64 + 3274.377 x$$

$$\text{Total deposit for the year 2013/14} = 32704.64 + 3274.377 \times 3 = 42527.77$$

$$\text{Total deposit for the year 2014/15} = 32704.64 + 3274.377 \times 4 = 45802.148$$

$$\text{Total deposit for the year 2015/16} = 32704.64 + 3274.377 \times 5 = 49076.525$$

$$\text{Total deposit for the year 2016/17} = 32704.64 + 3274.377 \times 6 = 52350.902$$

$$\text{Total deposit for the year 2017/18} = 32704.64 + 3274.377 \times 7 = 55625.279$$

ANNEX-A-14

Trend Analysis of Loan and Advances

For NIBL

(Rs in million)

Fiscal year	Loan and Advances(y)	$x=X-2008/9$	x^2	xy
2007/8	17769.1000	-2	4	-35538.20
2008/9	27529.3050	-1	1	-27529.305
2009/10	36827.1570	0	0	0
2010/11	40948.4400	1	4	40948.440
2011/12	41887.6940	2	1	83775.38
	$\Sigma y = 164961.696$	$\Sigma x = 0$	$\Sigma x^2 = 10$	$\Sigma xy = 61656.32$

Since,

$$a = \frac{\Sigma y}{N} = \frac{164961.696}{5} = 32992.339$$

$$b = \frac{\Sigma xy}{\Sigma x^2} = \frac{61656.32}{10} = 6165.632$$

Putting the value of a and b in fitted trend line ,

$$Y = 32992.339 + 6165.632x$$

Total deposit for the year 2013/14 = $32992.339 + 6165.632 \times 3 = 51489.235$

Total deposit for the year 2014/15 = $32992.339 + 6165.632 \times 4 = 57654.867$

Total deposit for the year 2015/16 = $32992.339 + 6165.632 \times 5 = 63820.499$

Total deposit for the year 2016/17 = $32992.339 + 6165.632 \times 6 = 69986.131$

Total deposit for the year 2017/18 = $32992.339 + 6165.632 \times 7 = 76151.763$

ANNEX -A-15

Trend Analysis of Loan and Advances

For SCBNL

(Rs in million)

Fiscal year	Loan and Advances(y)	$x=X-2008/9$	x^2	xy
2007/8	10502.6370	-2	4	-21005.274
2008/9	13718.5970	-1	1	-13718.597
2009/10	13679.9550	0	0	0
2010/11	15956.9550	1	4	15956.955
2011/12	18427.2700	2	1	36854.540
	$\Sigma y = 72285.216$	$\Sigma x = 0$	$\Sigma x^2 = 10$	$\Sigma xy = 87535.366$

Since,

$$a = \frac{\Sigma y}{N} = \frac{72285.216}{5} = 14457.043$$

$$b = \frac{\Sigma xy}{\Sigma x^2} = \frac{87535.366}{10} = 8753.537$$

Putting the value of a and b in fitted trend line ,

$$Y = 14457.043 + 8753.537x$$

$$\text{Total deposit for the year 2013/14} = 14457.043 + 8753.537 \times 3 = 40807.653$$

$$\text{Total deposit for the year 2014/15} = 14457.043 + 8753.537 \times 4 = 49591.189$$

$$\text{Total deposit for the year 2015/16} = 14457.043 + 8753.537 \times 5 = 58374.726$$

$$\text{Total deposit for the year 2016/17} = 14457.043 + 8753.537 \times 6 = 67158.263$$

$$\text{Total deposit for the year 2017/18} = 14457.043 + 8753.537 \times 7 = 75941.799$$

ANNEX-A 16

Trend Analysis of Total Investment

ForNIBL

(Rs in million)

Fiscal year	Investment (Y)	$x=X-2008/9$	x^2	xy
2007/8	6868.6500	-2	4	-13737.30
2008/9	6874.0240	-1	1	-6874.024
2009/10	7403.1120	0	0	0
2010/11	8635.5300	1	4	8635.530
2011/12	7423.1070	2	1	14846.214
	$\Sigma y = 37204.423$	$\Sigma x = 0$	$\Sigma x^2 = 10$	$\Sigma xy = 2870.42$

Since,

$$a = \frac{\Sigma y}{N} = \frac{37204.423}{5} = 7440.885$$

$$b = \frac{\Sigma xy}{\Sigma x^2} = \frac{2870.42}{10} = 287.042$$

Putting the value of a and b in fitted trend line ,

$$Y = 7440.885 + 287.042 x$$

Total deposit for the year 2013/14 = $7440.885 + 287.042 \times 3 = 8302.011$

Total deposit for the year 2014/15 = $7440.885 + 287.042 \times 3 = 8589.053$

Total deposit for the year 2015/16 = $7440.885 + 287.042 \times 3 = 8876.095$

Total deposit for the year 2016/17 = $7440.885 + 287.042 \times 3 = 9163.137$

Total deposit for the year 2017/18 = $7440.885 + 287.042 \times 3 = 9450.179$

ANNEX -A-17

Trend Analysis of Total Investment

For SCBNL

(Rs in million)

Fiscal year	Investment (Y)	$x=X-2008/9$	x^2	xy
2007/8	13553.2330	-2	4	-27106.466
2008/9	13902.8190	-1	1	-13902.819
2009/10	20236.1210	0	0	0
2010/11	19847.5110	1	4	19874.511
2011/12	17258.6820	2	1	34517.364
	$\Sigma y = 84825.366$	$\Sigma x = 0$	$\Sigma x^2 = 10$	$\Sigma xy = 13382.59$

Since,

$$a = \frac{\Sigma y}{N} = \frac{84825.366}{5} = 16965.073$$

$$b = \frac{\Sigma xy}{\Sigma x^2} = \frac{13382.59}{10} = 1338.259$$

Putting the value of a and b in fitted trend line ,

$$Y = 16965.073 + 1338.259x$$

Total deposit for the year 2013/14 = $16965.073 + 1338.259 \times 3 = 20979.85$

Total deposit for the year 2014/15 = $16965.073 + 1338.259 \times 4 = 22318.109$

Total deposit for the year 2015/16 = $16965.073 + 1338.259 \times 5 = 23656.368$

Total deposit for the year 2016/17 = $16965.073 + 1338.259 \times 6 = 24994.627$

Total deposit for the year 2017/18 = $16965.073 + 1338.259 \times 7 = 26332.886$

ANNEX-A-18

Calculation of Regression analysis between net Profit (X) and Total Deposit (Y)

For NIBL

Fiscal year	Net profit(X)	Total deposit(Y)	X ²	Y ²	XY
2007/8	0.5014	24.4889	0.251400	599.706223	12.27873446
2008/9	0.6967	34.4517	0.485391	1186.919633	24.00249939
2009/10	0.9006	46.6981	0.81108	2180.712544	42.05630886
2010/11	1.2659	50.0947	1.602503	2509.47896	63.41488073
2011/12	1.1766	50.1382	1.534762	2513.83909	58.99260612
	$\sum X = 4.5412$	$\sum Y =$ 205.8716	$\sum X^2 = 4.685136$	$\sum Y^2 = 8990.65645$	$\sum XY = 200.745029$

$$\begin{array}{rcl}
 5a + 4.5412b & = & 205.8716 \\
 4.5412a + 4.685136b & = & 200.745029
 \end{array}
 \quad \left. \vphantom{\begin{array}{rcl} 5a + 4.5412b \\ 4.5412a + 4.685136b \end{array}} \right\}
 \begin{array}{l}
 a = 22.8692 \\
 b = 22.1303
 \end{array}$$

$$r = 0.52$$

$$\begin{aligned}
 T &= \frac{r}{\sqrt{1-r^2}} * \sqrt{N-2} \\
 &= \frac{0.52}{\sqrt{1-(0.52)^2}} * \sqrt{5-2} \\
 &= \frac{0.52}{0.8542} * 1.73 \\
 &= 1.053
 \end{aligned}$$

ANNEX-A-19

Calculation of Regression analysis between net Profit (X) and Total Deposit (Y)

For SCBNL

Fiscal year	Net profit(X)	Total deposit(Y)	X ²	Y ²	XY
2007/8	0.6916	24.6470	0.6784.5	817.770622	19.779415
2008/9	0.8189	29.74490	0.670632	1111.280895	27.299377
2009/10	1.0251	35.3508	1.050858	1605.330032	41.072802
2010/11	1.0859	35.1827	1.179120	1671.111111	43.666556
2011/12	1.1191	37.9992	1.252544	1919.361666	49.031463
	$\sum X = 4.7406$	$\sum Y = 186.0227$	$\sum X^2 = 4.631559$	$\sum Y^2 = 7070.85432$	$\sum XY = 180.849613$

$$\begin{array}{rcl}
 5a + 4.7406b & = & 186.0227 \\
 4.7406a + b(4.631559) & = & 180.849613
 \end{array}
 \left. \vphantom{\begin{array}{rcl} 5a + 4.7406b \\ 4.7406a + b(4.631559) \end{array}} \right\}
 \begin{array}{l}
 a = 6.1714 \\
 b = 30.8571
 \end{array}$$

$$r = 0.52$$

$$\begin{aligned}
 T &= \frac{r}{\sqrt{1-r^2}} * \sqrt{N-2} \\
 &= \frac{0.87}{\sqrt{1-(0.87)^2}} * \sqrt{5-2} \\
 &= \frac{0.87}{0.49305} * 1.73 \\
 &= 3.0562
 \end{aligned}$$

ANNEX-A-20

Calculation of Regression analysis between net Profit (X) and Loan and Advances (Y)

For NIBL

Fiscal year	Net profit(X)	Loan and Advances(Y)	X ²	Y ²	XY
2007/8	0.5014	17.7691	0.251400	315.740915	8.909427
2008/9	0.6967	27.5293	0.485391	757.86235	19.179663
2009/10	0.9006	36.8272	0.81108	1356.24266	33.166576
2010/11	1.2659	40.9484	1.602503	1676.77146	51.836579
2011/12	1.1766	41.8877	1.534762	1754.57941	49.285067
	$\Sigma X = 4.5412$	$\Sigma Y = 164.96170$	$\Sigma X^2 = 4.534764$	$\Sigma Y^2 = 5861.196$	$\Sigma XY = 162.377312$

$$\begin{array}{rcl}
 5a & +4.5412 b & = 164.96170 \\
 4.5412a + 4.534764b & & = 162.377312
 \end{array}
 \left. \vphantom{\begin{array}{rcl} 5a & +4.5412 b & = 164.96170 \\ 4.5412a + 4.534764b & & = 162.377312 \end{array}} \right\}
 \begin{array}{l}
 a = 5.636 \\
 b = 30.1203
 \end{array}$$

$$r = 0.92$$

$$\begin{aligned}
 T &= \frac{r}{\sqrt{1-r^2}} * \sqrt{N-2} \\
 &= \frac{0.92}{\sqrt{1-(0.92)^2}} * \sqrt{5-2} \\
 &= \frac{0.92}{0.3919} * 1.73 \\
 &= 4.066
 \end{aligned}$$

ANNEX-A-21

Calculation of Regression analysis between net Profit (X) and Loan and Advances (Y)

For SCBNL

Fiscal year	Net profit(X)	Loan and Advances (Y)	X ²	Y ²	XY
2007/8	0.6916	10502.6370	0.6784.5	110.30461	7.264648
2008/9	0.8189	13718.5970	0.670632	188.19998	11.234162
2009/10	1.0251	13679.9550	1.050858	187.136928	14.023163
2010/11	1.0859	15956.9550	1.179120	254.62585	17.327706
2011/12	1.1191	18427.2700	1.252544	339.56539	20.623834
	ΣX= 4.7406	ΣY=72.2853	Σ X ² =4.63166	Σ Y ² = 1079.832758	Σ XY =70.473513

$$\begin{array}{l}
 5a + 4.7406b = 72.2853 \\
 4.7406a + 4.63166b = 70.473513
 \end{array}
 \quad \left. \vphantom{\begin{array}{l} 5a + 4.7406b = 72.2853 \\ 4.7406a + 4.63166b = 70.473513 \end{array}} \right\}
 \begin{array}{l}
 a = 1.02 \\
 b = 14.167
 \end{array}$$

$$r = 0.79$$

$$\begin{aligned}
 T &= \frac{r}{\sqrt{1-r^2}} * \sqrt{N-2} \\
 &= \frac{0.79}{\sqrt{1-(0.79)^2}} * \sqrt{5-2} \\
 &= \frac{0.79}{0.613} * 1.73 \\
 &= 2.23
 \end{aligned}$$

ANNEX-A-22

Calculation of Regression analysis between net Profit (X) and Loan and Total investment (Y)

For NIBL

Fiscal year	Net profit(X)	Total investment (Y)	X ²	Y ²	XY
2007/8	0.5014	6.8687	0.251400	47.179040	3.443966
2008/9	0.6967	6.8740	0.485391	47.251876	4.789116
2009/10	0.9006	7.4031	0.81108	54.805896	6.667232
2010/11	1.2659	8.6355	1.602503	74.571860	10.931679
2011/12	1.1766	7.4231	1.534762	55.102414	8.734019
	ΣX= 4.5412	ΣY=37.2044	Σ X ² =4.534764	ΣY ² = 278.911076	ΣXY =34.566012

$$\begin{array}{rcl}
 5a & +4.5412 b & =37.2044 \\
 4.5412a+4.534764b & & =34.566012
 \end{array}
 \left. \vphantom{\begin{array}{rcl} 5a & +4.5412 b & =37.2044 \\ 4.5412a+4.534764b & & =34.566012 \end{array}} \right\}
 \begin{array}{l}
 a= 5.75 \\
 b = 1.86
 \end{array}$$

$$r = 0.70$$

$$\begin{aligned}
 T &= \frac{r}{\sqrt{1-r^2}} * \sqrt{N-2} \\
 &= \frac{0.70}{\sqrt{1-(0.70)^2}} * \sqrt{5-2} \\
 &= \frac{0.70}{0.7141} * 1.73 \\
 &= 1.698
 \end{aligned}$$

ANNEX –A-23

Calculation of Regression analysis between net Profit (X) and Total Investment(Y)

For SCBNL

Fiscal year	Net profit(X)	Total Investment(Y)	X ²	Y ²	XY
2007/8	0.6916	13.5532	0.6784.5	183.689230	9.374748
2008/9	0.8189	13.9028	0.670632	193.287848	11.385003
2009/10	1.0251	20.2361	1.050858	409.499743	20.744026
2010/11	1.0859	19.8475	1.179120	393.923256	21.552400
2011/12	1.1191	17.2587	1.252544	297.862726	19.315937
	∑X= 4.7406	∑Y=84.7983	∑ X ² =4.63166	∑ Y ² = 1478.262803	∑ XY =82.372114

$$\begin{array}{rcl}
 5a + 4.7406b & = & 84.7983 \\
 4.7406a + 4.63166b & = & 82.372114
 \end{array}
 \quad \left. \vphantom{\begin{array}{rcl} 5a + 4.7406b \\ 4.7406a + 4.63166b \end{array}} \right\}
 \begin{array}{l}
 a = 9.36 \\
 b = 8.015
 \end{array}$$

$$r = 0.84$$

$$\begin{aligned}
 T &= \frac{r}{\sqrt{1-r^2}} * \sqrt{N-2} \\
 &= \frac{0.84}{\sqrt{1-(0.84)^2}} * \sqrt{5-2} \\
 &= \frac{0.84}{0.5426} * 1.73 \\
 &= 2.68
 \end{aligned}$$

NNEX-A-6

Calculation of correlation of Total Deposit(X) and Loan and Advances (Y)

For NIBL

Fiscal year	X	Y	d ₁ =X-46698.100	d ₂ =Y-36827.157	d ₁ ²	d ₂ ²	d ₁ d ₂
2007/8	24488.8560	17769.1000	-22209.2440	-19058.057	493250519	363210032	423265038.1
2008/9	34451.7260	27529.3050	-12246.3740	-9297.852	149973676	86450051.81	113864973
2009/10	46698.1000	36827.1570	0	0	0	0	0
2010/11	50094.7250	40948.4400	3396.6250	4121.2830	11537061.39	16984973.57	13998452.87
2011/12	50138.1220	41887.6940	3440.0220	5060.5370	11833751.36	25609034.73	17408358.61
			∑d ₁ =-27618.971	∑d ₂ =-19174.089	∑d ₁ ² =666595007.7	∑d ₂ ² =492257092.1	∑d ₁ d ₂ =568536822.6

$$r_{12} = \frac{n \sum d_1 d_2 - (\sum d_1)(\sum d_2)}{\sqrt{n \sum d_1^2 - (\sum d_1)^2} \sqrt{n \sum d_2^2 - (\sum d_2)^2}}$$

Where n= 5

a= Assume mean

Using Karl's Pearson's coefficient of correlation

$$r_{12} = \frac{5 \times 568536822.6 - (-27618.971)(-19174.089)}{\sqrt{5 \times 66595007.7 - (-27618.971)^2} \sqrt{5 \times 492254092.1 - (-19174.089)^2}}$$

$$= \frac{2313115505}{2316691001}$$

=0.997

$r^2 = .994$

$$S.E.r. = \frac{1-r^2}{\sqrt{N}} = \frac{1-0.994}{\sqrt{5}} = \frac{0.006}{2.236} = 0.00224$$

P.E.r. $0.7645 * S.E.r. = 0.7645 * 0.00224 = 0.0017$

$6 * P.E.e. = 6 * P.E.r. = 6 * 0.0017 = 0.0103$

Fiscal year	X	Y	$d_1=X-$ 35350.8240	$d_2=Y-$ 13679.9550	d_1^2	d_2^2	d_1d_2
2007/8	24647.021	10502.6370	-10703.803	-3177.12	114571398.7	10094091.49	34007266.59
2008/9	29743.9990	13718.5970	-5606.825	38.84	31436486.58	1508.546	-217769.123
2009/10	35350.8240	13679.9550	0	0	0	0	0
2010/11	35182.7210	15956.9550	-1168.103	227.720	1364464.619	51856.398	-266000.42

ANNEX-

A-7

Calculation of correlation of Total Deposit(X) and Loan and Advances (Y)

For SCBNL

$r_{12} =$	2011/12	37999.2420	18427.2700	2648418	4747.51	7014117.903	22538851.20	12573390.94
				$\sum d_1 = -14830.313$	$\sum d_2 = -1836.95$	$\sum d_1^2 = 154386467.8$	$\sum d_2^2 = 32686307.63$	$\sum d_1 d_2 = 46096887.99$

$$\frac{n \sum d_1 d_2 - (\sum d_1)(\sum d_2)}{\sqrt{n \sum d_1^2 - (\sum d_1)^2} \sqrt{n \sum d_2^2 - (\sum d_2)^2}}$$

Where n= 5

A= Assume mean

Using Karl's Pearson's coefficient of correlation

$$r_{12} = \frac{5 \times 46096887.99 - (-14830.313)(1836.95)}{\sqrt{5 \times 154386467.8 - (-14830.313)^2} \sqrt{5 \times 32686307.63 - (1836.95)^2}}$$

$$= \frac{257726983.4}{297238320.9}$$

$$= 0.867$$

$$r^2 = 0.752$$

$$S.E.r. = \frac{1-r^2}{\sqrt{N}} = \frac{1-0.752}{\sqrt{5}} = \frac{0.248}{2.236} = 0.111$$

$$P.E.r. = 0.7645 * S.E.r. = 0.7645 * 0.111 = 0.0748$$

$$6 * P.E.e. = 6 * P.E.r. = 6 * 0.0748 = 0.4488$$

ANNEX- A-8

Calculation of correlation between Total Deposit(x) and Total Investment(Y)

Fiscal year	X	Y	d ₁ =X- 46698.100	d ₂ =Y- 7403.1120	d ₁ ²	d ₂ ²	d ₁ d ₂
2007/8	24488.8560	6868.6500	-22209.244	-534.462	493250519	285649.629	11869996.97
2008/9	34451.7260	6874.0240	-12246.374	-529.088	149973676	279934.112	6479409.527
2009/10	46698.1000	7403.1120	0	0	0	0	0
2010/11	50094.7250	8635.5300	3396.625	1232.418	11537061.39	1518854.127	4186061.789
2011/12	50138.1220	7423.1070	3440.022	19.995	11833751.36	399.8000	68783.239
			∑d ₁ =- 27618.971	∑d ₂ =	∑d ₁ ² =666595007.7	∑d ₂ ² =2084837.6680	∑d ₁ d ₂ =22542351.9

For

NIBL

$$r_{12} = \frac{n \sum d_1 d_2 - (\sum d_1)(\sum d_2)}{\sqrt{n \sum d_1^2 - (\sum d_1)^2} \sqrt{n \sum d_2^2 - (\sum d_2)^2}}$$

Where n= 5

a= Assume mean

Using Karl's Pearson's coefficient of correlation

$$r_{12} = \frac{5 \times 22542351.63 - (-27613.97)(188.863)}{\sqrt{5 \times 666595007.7 - (-27613.97)^2} \sqrt{5 \times 2084837.668 - (188.863)^2}}$$
$$= \frac{117927015.6}{163410863.1}$$

=0.72

$$r^2 = .518$$



$$S.E.r. = \frac{1-r^2}{\sqrt{N}} = \frac{1-0.518}{\sqrt{5}} = \frac{0.482}{2.236} = 0.2156$$

$$P.E.r. = 0.7645 * S.E.r. = 0.7645 * 0.2156 = 0.1454$$

$$6 * P.E.e. = 6 * P.E.r. = 6 * 0.0017 = 0.$$

ANNEX-A-9

Calculation of correlation of Total Deposit(X) and Total Investment(Y)

For SCBNL

$$r_{12} = \frac{n \sum d_1 d_2 - (\sum d_1)(\sum d_2)}{\sqrt{n \sum d_1^2 - (\sum d_1)^2} \sqrt{n \sum d_2^2 - (\sum d_2)^2}}$$

Where, n= 5

A= Assume mean

Using Karl's Pearson's coefficient of correlation

$$r_{12} = \frac{5 \times 106702860 - (-16382.239)(-14830.313)}{\sqrt{5 \times 154386467.8 - (-14830.313)^2} \sqrt{5 \times 93787866.96 - (-16382.239)^2}}$$

$$\frac{290560568}{332729361.7}$$

$$=0.873$$

$$=0.873$$

$$r^2 = 0.76$$

$$\text{S.E.r.} = \frac{1-r^2}{\sqrt{N}} = \frac{1-0.76}{\sqrt{5}} = \frac{0.24}{2.236} = 0.1073$$

$$\text{P.E.r. } 0.7645 * \text{S.E.r.} = 0.7645 * 0.1073 = 0.0724$$

$$6 * \text{P.E.e.} = 6 * \text{P.E.r.} = 6 * 0.0724 = 0.4345$$

ANNEX-A-10

Calculation of correlation between Loan and Advances(X) and Net Profit(Y)

For

Fiscal year	X	Y	d ₁ =X-	d ₂ =Y-	d ₁ ²	d ₂ ²	d ₁ d ₂
2007/8	17769.1000	501.3990	-19058.057	-399.22	363209536.6	159376.6084	7608357.516
2008/9	27529.3050	696.7320	-9297.852	-203.887	86450051.81	41569.90877	1895711.151
2009/10	36827.1570	900.6190	0	0	0	0	0
2010/11	40948.4400	1265.9500	4121.283	365.331	16984973.57	133466.7396	1505632.44
2011/12	41887.6940	1176.641	5060.537	276.022	25609034.73	76188.14448	1396819.544
			∑d ₁ =- 19174.089	∑d ₂ =38.246	∑d ₁ ² = 492253596.7	∑d ₂ ² = 410601.4012	∑d ₁ d ₂ = 12406520.65

NIBL

$$r_{12} = \frac{n \sum d_1 d_2 - (\sum d_1)(\sum d_2)}{\sqrt{n \sum d_1^2 - (\sum d_1)^2} \sqrt{n \sum d_2^2 - (\sum d_2)^2}}$$

Where ,

n= 5

a= Assume mean

Using Karl's Pearson's coefficient of correlation

$$r_{12} = \frac{5x12406520.65 - (-19174.089)(38.246)}{\sqrt{5x492253596.7 - (-19174.089)^2} \sqrt{5x410601.4012 - (38.246)^2}}$$

$$= \frac{31382967.18}{32768701.47}$$

$$= 0.96$$

$$r^2 = 0.92$$

$$\text{S.E.r.} = \frac{1-r^2}{\sqrt{N}} = \frac{1-0.92}{\sqrt{5}} = \frac{0.0828}{2.236} = 0.03703$$

$$\text{P.E.r.} = 0.7645 * \text{S.E.r.} = 0.7645 * 0.03703 = 0.02497$$

$$6 * \text{P.E.e.} = 6 * \text{P.E.r.} = 6 * 0.0017 = 0.1498$$

ANNE X-A-11

Calculation of correlation between Loan and Advances(X) and Net Profit(Y)

For SCBNL

$r_{12} =$

Fiscal year	X	Y	$d_1=X-$	$d_2=Y-$	d_1^2	d_2^2	d_1d_2
2007/8	10502.637	691.668	-3177.318	-333.446	10095349.67	111186.2349	1059463.978
2008/9	13718.597	818.921	38.642	-206.193	1493.204164	42515.55325	-7967.709906
2009/10	13679.955	1025.114	0	0	0	0	0
2010/11	15956.955	1085.873	2277	60.759	5184729	3691.656081	138348.243
2011/12	18427.27	1119.171	4747.315	94.057	22536999.71	8846.719249	446518.207
			$\Sigma d_1 =$ 3885.639	$\Sigma d_2 =$ 384.823	$\Sigma d_1^2 =$ 37818571.59	$\Sigma d_2^2 =$ 166240.1635	$\Sigma d_1d_2 =$ 1636362.718

$$\frac{n \Sigma d_1 d_2 - (\Sigma d_1)(\Sigma d_2)}{\sqrt{n \Sigma d_1^2 - (\Sigma d_1)^2} \sqrt{n \Sigma d_2^2 - (\Sigma d_2)^2}}$$

Where, n= 5

a= Assume mean

Using Karl's Pearson's coefficient of correlation

$$r_{12} = \frac{5 \times 1636362.718 - (3885.639)(-384.823)}{\sqrt{5 \times 37818571.59 - (3885.639)^2} \sqrt{5 \times 166240.1635 - (-384.823)^2}}$$
$$= \frac{4838509.89}{5451120.483}$$

$$= 0.8876$$

$$r^2 = 0.7879$$

$$\text{S.E.r.} = \frac{1-r^2}{\sqrt{N}} = \frac{1-0.7879}{\sqrt{5}} = \frac{0.2121}{2.236} = 0.09485$$

$$\text{P.E.r.} = 0.7645 * \text{S.E.r.} = 0.7645 * 0.09485 = 0.06398$$

$$6 * \text{P.E.e.} = 6 * \text{P.E.r.} = 6 * 0.0017 = 0.3$$

ANNEX-A-5

Calculation of mean and coefficient of variation between current assets and current liabilities

Fiscal year	Ratio of NIBL(X)	(X- \bar{X})	(X- \bar{X}) ²	Ratio of SCBNL(Y)	(Y- \bar{Y})	(Y- \bar{Y}) ²
2007/8	0.942	-0.0460	0.00212	0.9893	-0.0166	0.0003
2008/9	0.9476	-0.0404	0.00163	1.0244	0.0185	0.0003
2009/10	1.0432	0.0552	0.003047	1.004	-0.0019	0.000004
2010/11	0.9921	0.0041	0.00017	0.9746	-0.0313	0.0010
2011/12	1.0152	1.0152	0.00074	1.0372	0.0300	0.0010
	$\sum X^2=4.9401$		$\sum(X-\bar{X})^2=0.007554$	$\sum Y=5.0295$		$(Y-\bar{Y})^2=0.002604$

$$\text{Arithmetic Mean } (\bar{X}) = \frac{\sum X}{N} = \frac{4.9401}{5} = 0.9880$$

$$\text{Arithmetic Mean } (\bar{Y}) = \frac{\sum Y}{N} = \frac{5.0295}{5} = 1.0059$$

$$\text{Standard Deviation } (\delta) = \frac{\sqrt{\sum(X-\bar{X})^2}}{N-1} = \frac{\sqrt{0.007554}}{5-1} = 0.04346$$

$$\text{Standard Deviation}(\delta) = \frac{\sqrt{\sum(Y-\bar{Y})^2}}{N-1} = \frac{\sqrt{0.002604}}{5-1} = 0.0255$$

$$\text{Coefficient of variation (C.V.)} = \frac{\delta}{\bar{X}} * 100 = \frac{0.04346}{0.9880} * 100 = 4.40\%$$

$$\text{Coefficient of variation (C.V.)} = \frac{\delta}{\bar{Y}} * 100 = \frac{0.0255}{1.0059} * 100 = 2.54\%$$