CHAPTER- ONE
INTRODUCTION

1.1   Background of the study:

Banking plays significant role in the economic development of a country. Bank is a resource for the economic development which maintains the self-confidence of various segments of society and extends credit to the people. So, commercial banks are those financial institutions mainly dealing with activities of the trade, commerce, industry and agriculture that seek regular financial and other helps from them for growing and flourishing, the objectives of commercial banks is to mobilized idle resources into the most profitable sector after collecting them form scattered source commercial bank contributes is significantly and the formation and mobilization of internal capital and development effort.

The economic development of any nation is highly dependent on the various industrial sectors. This industrial sector comprises public sectors, manufacturing enterprises, tourism, transportation, construction, consulting services, trade, and services. The smooth operations of these sectors certainly have positive results over the economic growth and development of the nation. The failure of only one sector may also retard the economic growth. The level of contribution of these sectors on Gross Domestic Product (GDP) should be increased year by year. The contribution of financial and consultancy services in overall GDP cannot be overlooked. Agriculture sector has dominated other sector as almost 80% of the people rely on agriculture for their existence. The service sector especially financial sector has occurred significant position in comparison to others. The sector has vital role in smooth running of the economic activities. It is the fact that the existence of financial sector in the development of the capital market as well as money market is remarkable. Moreover, the sector has been able to lure a large community to invest in equity shares through primary & secondary market. Whatever may be the position of the sector, one can definitely state that it is one of the major catalysts in removal of backwardness and poverty from the nation. The financial and consultancy services, one of the important industrial sectors comprises; commercial banks, development banks, rural development banks, agriculture development banks, finance companies, co-operative with limited banking transactions.

Integrated and speedy development of the country and its financial position of the people are possible only when competitive banking service with its effective credit

management reaches nooks and corners of the country. In the developing country like Nepal, there is always lack of financial resources not only because of its real absence but because of the available resources not properly mobilized and not fully utilized for the productive purpose; in this course the commercial banks play a vital role. In modern times, commercial banks, which are facilitated, regulated and supervised by the Central bank, confined them and concentrated in their activities of fulfilling the financial needs of their customers. In the present scenario, Nepalese banking system is evolving itself as a powerful instrument of planning and economic growth of all the developed and underdeveloped sectors. The scope and scale of banking too have undergone substantial change in response to the saving and credit needs of people.

Bank came into existence mainly with the objectives of collecting the idle funds, mobilizing them into productive sector and causing an overall economic development. The bankers have the responsibility of safeguarding the interest of the depositors, the shareholders and the society that they are serving.

While talking about financial system there are two important aspects of financial deepening and financial repression. Financial repression is defined as a situation where the government and/ or central bank's regulations distort the operation of financial market. In other words, it means banks are dictated by the central bank and/or government not to charge more than certain amount of interest and restriction on other activities too. The indicators of such situation are ceiling on the nominal interest rate, mandatory investment in government paper, imposition of reserve requirement limiting their ability to lend and mandatory directed credit in priority and deprived sector (Koch & MacDonald: 1998: 310). Similarly, financial deepening is defined as the situation where banks are allowed to charge interest on the prevailing market rate. There is negligible restrictions imposed by the central bank and commercial banks have been given total freedom on their activities.

Introduction of Nepalese Commercial Banks
The banking system in Nepal has no far away history. It was started during the period of Rana Prime Minister Ranoddip Singh. "Tejarath Adda" was established during the year 1877 A.D. It was the first step in institutional development of banking sector of Nepal and considered as the father of the today's modern banking institution of Nepal, which rendered a good services to government servant and the general public by providing loan at cheaper rate and mobilizing scattered resources from the public. Before its establishment, there was no any official unit for this type of service. People used to go to the local moneylender, goldsmith, landlord etc. They used to charge

high interest rate against the collateral of gold, silver, land, house etc. Consequently, the major parts of the country remain untouched from these banking activities. The trade with India and other countries increase the necessity of the institutional banker, which can act more widely to enhance the trade and commerce and to touch the remote banking sector in the economy. Reviewing this situation, the "Udhyog Parishad" was constituted in 1936 A.D. One year after its formulation, it formulated a "Company Act" and "Nepal Bank Act" in 1937 A.D. Nepal Bank Limited was established under Nepal Bank Act in 1937 A.D. as a first commercial bank of Nepal with 10 million authorized capital. The central bank of Nepal, Nepal Rastra Bank was established in 1956 A.D (2013-01-14) under the Nepal Rastra Bank Act 1956 A.D. The second commercial bank of Nepal is Rastriya Banijya Bank which was established in 1966 (2022 B.S), twenty-nine years later the establishment of the first commercial bank. For industrial development, industrial development center was set up in 1956 A.D. (2013 B.S) which was converted to Nepal Industrial Development Corporation (NIDC) in 1959 A.D (2016 B.S). Similarly, Agricultural Development Bank (ADB) was established in 1976 A.D (2024 B.S.) with an objective to provide agricultural loan so that agricultural productivity could be enhanced through introduction of modern agricultural techniques. During Nineties, the banks and financial institutions have been increasing rapidly. As an open policy of the HMG's to get permission to invest in banking sector from private and foreign investor under commercial bank Act 1957 (2013), different private banks are getting permission to establish with the joint venture of other countries. Currently, there are 20 commercial banks operating in Nepali financial market along with 9 joint ventures with foreign investors.

The first joint venture of Nepal is Nabil Bank Limited established in 1984 A.D, joint ventures with United Arab Emirates Bank. Then two other banks Nepal Indosuez Bank Ltd. with Indosuez Bank of France and Nepal Grindlays Bank Limited with Grindlays Bank of London were established in 1986 A.D. But, currently these banks name changed as Nepal Investment Bank Limited and Standard Chartered Bank Limited respectively. Himalayan Bank Limited Bank is joint ventured with Habib Bank of Pakistan and Nepal SBI Bank Limited is joint ventured with State Bank of India were established in 1993 A.D. Everest Bank limited is joint ventured with Punjab National Bank India (earlier it was joint ventured with United Bank of Calcutta). Nepal Bangladesh Bank is joint-ventured with I.F.I.C Bank Limited of Bangladesh which was established in 1993. Bank of Katmandu is joint ventured with SIAM commercial Bank public co. Thailand which was established in 1995 A.D. Nepal Bank of Ceylon is joint ventured with Nepal Credit and Commerce Bank which

was established in 1997 A.D. Likewise, Lumbini Bank Limited and NIC bank Limited both was established in 1998 A.D. Others private commercial banks, namely Kumari Bank Limited was established in 1999, Machhapuchhere Bank Limited was established in 2000 A.D, Laxmi Bank Limited was established in 2001 A.D and Siddhartha Bank Limited was also established in 2001 A.D, Global Bank, Citizen Bank, Prime Bank, Sunrise Bank, Bank of Asia, Nepal Merchant Bank, Kist Bank are the newly established commercial bank.

Ratio analysis is done with different ratios, which are calculated from the accounting data contained in the financial statement. It is the primary tool for examining the firm's financial position and performance. Ratios are used as yardsticks for evaluating the financial condition and performance of the firm. Analysis and interpretation using various ratios give one a better understanding of the financial condition and performance than what he/ she could obtain only through a perusal of financial statements. No only this much experts use ratios for credit analysis, stock analysis and so on.

Everest Bank Ltd. (EBL)

Everest Bank Ltd. was registered under the company act 1964 in 19th November 1993 and started commenced banking transaction in 16th October 1994, the promoter of the bank decided to join hands with an Indian bank and entered into joint venture agreement in January 1997 AD with Punjab National Bank (PNB), which is one of the leading commercial bank of India, having over 100 years of successful banking experience and known for its strong system and procedure. A team of professionals are deputed by PNB under this arrangement. Now the bank has 38 branches including main branch in Nepal. Nepalese promoter holds 50% and rest 30% held by General public.

The main purpose of EBL is to extend professional banking services to various sectors of the society in the Kingdom of Nepal and thereby contributing in the economic development of the country. It provides following facilities and services to their customers;

-      Cumulative Deposit Scheme
-      Unfix Fixed Deposit
-      Required Deposit Plan
-      Telegraph Transfer (T.T)
-      Letter of Credit
-      Drawing Arrangement

- SWIFT Transfer
- International Trade and Bank Guarantees
- Remittance
- Foreign Currency Deposits/ Lending
- Foreign Exchange
- Trade Finance
- 365 Days Banking
- Debit Card
- Merchant Banking
- ATM (Automated Teller Machine) etc

Everest Bank Ltd. is moving towards to the consumer finance and providing different types of loans like; Home Loan, Education Loan, Personal Loan and Vehicle Loan etc.

Nepal SBL Bank Limited

Nepal SBI Bank Ltd. (NSBL) is the first Nepal- Indo joint venture bank in the country. It is sponsored by three institutional promoters. They are State Bank of India, Karmachari Sanchaya Kosh (Employees Provident Fund) and Agricultural Development bank of Nepal (ADB/N). Nepal SBI Bank Limited became operational on the 8th July 1993.

The bank was registered on 2050/ 01/16 (28.04.1993) in the Department of Industry, Nepal Government (NG) under the Company Act 2021 and Commercial Bank Act 2031. The formal inauguration of Nepal SBI Bank Limited took place on 7th July 1993. It commenced its operations on 2050/03/24 (8th July, 1993). The equity composition of the Bank is as follows:

1. State Bank of India   – 50%
2. Employee Provident Fund   -15%
3. Agricultural Development Bank-5%
4. General Public-30%

The services provided by Nepal SBI Bank Limited include deposits, remittances, various types of loan facilities, letter of credit, bank guarantees, retail financing (house loans, vehicle loans and education loan), ATM facility, 365 days banking etc.

1.2   Statement of the problem:

In fact, financial ratios suffer from so many limitations that they seem to be not useful. They are not effective for the financial analysis due to various limitations. But it is not true. Analysts have been using the ratios to analyze the financial performance from many years. Even they used ratio for the prediction purpose also. Here, one can

raise questions. The questions are, can ratios predict about future? Have ratios some predictive power? And so on. The answer is that, to some extent ratio can predict and it has predictive power. Stock analysts and credit analysts have used ratios for the prediction. So, having so many limitations, ratios have predictive power. This is the main problem of this study or the ratios which have so many limitation and it seems to be useless, can have predictive power or it can predict is the main problem of this study.

The commercial banks have been operating well from their establishment. Their experience on international banking, prompt and computerized services, professional attitude are factors for their rapid progress. They have been growing rapidly. These banks have succeeded to capture remarkable market share of Nepalese banking sectors of financial services industry in a relatively short period of time.

According to research, inefficiency and weaknesses can be traced with the financial statement analysis in same aspects of the bank's financial performance. Banks provide only short-term credit while demand for long and medium term credit has meet in the process of development. The margin ration for providing loans is too high, which makes deposits unutilized, though all the commercial banks are increasing their profit. However, Nepal is facing lots of national as well as international problems such as: instability of politics, difficulty in collecting resources, declining of tourism industry, falling of manufacturing companies and garments etc. These areas are mainly affected by recent unfavorable international economic conditions. Therefore, these areas and recent unfavorable economic conditions are adversely affecting the investment of the banks. Against these problems this research deals with the following issues:

- ➢ How efficiently banks are managing their assets and liquidity ratio?
- ➢ What is the relationship of investment with deposits and net profit?
- ➢ To what extent are Liquidity Ratio, Profitability Ratio, Debt Management Ratio, Assets Management Ratio and Marketability Ratio useful to predict failure of Banks?
- ➢ How far commercial banks as well as banks have been able to convert the mobilized deposits into investment?
- ➢ To what extent these banks have been able to raise their profitability ratio?

1.3 Objectives of the Study:

The main objective of the study is to evaluate the financial performance of selected joint venture commercial banks in Nepal. In order to achieve the basic objective, the following other objectives are:

1. To examine related financial performance of Everest Bank Ltd. and Nepal SBI Bank Ltd.
2. To evaluate the trend of deposits and loans of Everest Bank Ltd. and Nepal SBI Bank Ltd.
3. To assess the financial strength & weakness of these banks in terms of financial ratios.
4. To recommend and suggest on the basis of major findings of the study.

1.4 Significance of the Study:

Thus the main importances of the study are as followed:

❖ The study focuses on financial performance of selected commercial banks, NRB act and directives for the joint venture banks.

❖ It will provide information to the general public regarding success of these commercial banks on the investments they have made.

❖ This study will be valuable for the shareholders, management of the banks and board of directors of the respective banks, as they hold the position where they stand in the market.

❖ It will give a clear picture on how the banks performing their important functions of loan disbursement and repayment.

1.5 Limitations of the Study:

Financial ratio is not a full proof tool itself and no study can be conducted without any limitation. So this study has also been some limitations. Major limitations of the study are:

⟩ The study includes certain Banks as sample.

⟩ The study covers five years data.

⟩ Only certain tools are used to analyze the data.

⟩ This study is based on secondary data. The study depends on annual reports published by the banks.

⟩ Certain ratios are only taken as the sample under study.

⟩ No hypothesis is used to test the significance of the study.

1.6   Organization of the Study:

This study has been organized into five chapters as prescribed by the University.

Chapter One contains general background of the study, statement of the research problem, objectives and scope of the study and limitation of the study. This chapter signifies the rational of this study. Chapter Two deals with the review of literature, it includes a discussion on the conceptual framework i.e. capital structure concept and its theories and review of major empirical work relating to the capital structure and ratios. Chapter Three deals with research methodology, it consists of methodology adopted to achieve the objective i.e. research questions the models, specification of variables, sample selection, data collection and limitation of the study. Chapter Four consists of presentation and analysis of data with different financial tools. An analysis of survey of the respondents' opinion on various aspects of capital structure management has been also presented. This chapter also contains major finding of the study. Chapter Five consists of the summary and conclusion of this study and recommendation for further improvement.

CHAPTER-TWO
REVIEW OF LITERATURE

Literature review is basically a 'stock taking' work of available literature. To make the research more realistic- review of literature is required. It provides significant knowledge in the field of research. Thus, the review of various books, research studies and articles have been used to make clear about the concept of ratio analysis and capital structure as well as to recall the previous studies made by various researchers.

The purpose of literature review is to find out what research studies have been conducted in this field of study, and what remains to be done. Review of literature provides foundation to the study. The literature survey also minimizes the risk of pursuing the dead-end in research to make meaningful research study conceptual review has been done through the study of various books, journals and articles and researches conducted by the previous researchers in the field of ratio analysis i.e. research work, thesis and dissertation etc.

2.1 Theoretical Review: Ratio Analysis

The term ratio refers the numerical or quantitative relationship between two terms or variables. A ratio is calculated by dividing one item of the relationship with the other. The ratios are designed to show the relationship between the financial statements, within a firm and between firms. Translating accounting numbers into relative values or ratios allows us to compare the financial position of one firm to another even if their size is significantly differences.

Ratio, simply, means one number expressed in terms of another. A ratio is a statistical yardstick by means of which relationship between two or various figures can be compared or measured. Ratio can be found out by dividing one number by another number. Ratio show how one number is related to another.

An arithmetical or numerical relationship between two interrelated figure/ items or variables is known as ratio. The ratio helps us to reveal a relationship in a more meaningful way so as to enable us to draw conclusion from them. A single ratio by itself has no meaning because it does not indicate favorable or unfavorable condition, so it should be compared with some standards to analyze it.

 "Ratios are relationship, expressed in mathematical terms between figures which have a cause and effect relationships or which are connected with each other in some other manner". (Grewal, 1974: 102.)

"The term Ratio refers to the numerical or quantitative relationship between two items/ variables. The relationship can be expressed as: (I) Percentage say net profit is 25 % of sales (assuming net profit is Rs. 25,000 and sales are Rs. 100,000) (ii) Fraction (net profit is one forth of sales and (iii) Proportion of number (the relationship between net profit and sales is 1:4) (Khan & Jain, 2000: 47)

"A ratio is a statistical yardstick that provides a measure of the relationship between two variables or figures. This relationship can be expressed as percentage (cost of goods sold as percentage of sales) or as a quotient (current assets as a certain number of items the current liabilities." (Kuchhal, 1979: 22)

" Ratio is simply one number expressed in terms of another , it is an expression of relationship split out by dividing one figure into the another."
(M.M. and Goyal, 1988:50)

Ratio is the numerical or an arithmetical relationship between two figures. It is expressing one number in terms of another i.e. one figure is divided by another number in order to calculate the ratio. (Jain & Narang 1991:15)

A Ratio may be defined as a fixed relationship in degree or number between two numbers. In finance, ratios are used to point out relationships that are not obvious from the raw data. (Hampton, 1990:122)

Ratio analysis has been a major tools used in the interpretation and evaluation of financial statement since late 1800. (Baruch, 1974:11)

A ratio is defined as "the indicated quotient of two mathematic expressions and as the relationship between two or more things." (Webster's New Dictionary 1975:958)
"The relationship between two amounts reckoned as the number of times on contains the other." (The Oxford Paperback Dictionary 1996:530)

"Ratio analysis is such a powerful tool of financial analysis that through it economic and financial position of a business unit can be fully x-rayed." (Kothari, 1994:487)
Ratio analysis is used to compare a firm's financial performance and status with that of other firm or to itself over time." (Pandey I.M, 1998:93)

Financial ratios are the tools to analyze the financial condition and performance. We calculate ratios because in this way we get a comparison that may prove more useful than the raw number by them." (Van Horne, 1991:148)

In this context, it is clear that, ratio analysis involves the method of calculating and interpreting financial figures in order to access the firm's performance and status.

Ratio analysis is a process of establishing meaningful relationship between two figures or set of figures of financial statement with a view to present the financial statement in simple concise and intelligible form.

"A ratio is simply one number expressed in terms of another and as such it expresses the quantitative relationship between any two numbers. Ratio can be expressed in terms of percentage, proportion and as a coefficient." Logarithmic graph" and "break even chart" are the graphic forms of expressing a ratio. The technique of ratio analysis is a part of the whole process of analysis of financial statement of any business or industrial concern especially to take output and credit decisions. Though this technique, a comparative study can be made between different statistics concerning varied facts of a business unit. Just as the blood pressure pulse and temperatures are the measure of the health of an individual so does ratios analysis measure the economic or financial health of a business concern. Thus, the techniques of ratio analysis are of a considerable significance in management of the business and industrial concerns." (Kothari, 1994:199)

"The usefulness of ratios depends upon ingenuity and the experience of the financial analyst who employs them. By themselves; financial ratio is meaningless; they must be analyzed in comparative basis. Comparison cover leading clues in evaluating changes and trends in the firm's financial conditions and profitability. This comparison may be historical, but it may also include an analysis of the future based upon projected financial statements." (Van Horne, 1991:148)

Types of Ratios

"Ratios can be classified in a number of ways to suit any particular purpose. Different kinds of ratios are selected for different types of situations. The nature of analysis depends on the purpose for which the ratios are used and the kind of dates available. " (Pillai & Bagavathi,1998:134)

Ratios have generally been classified on the basis of statement from which items have been taken on the basis of nature of ratios, on the basis of purposes which they serve ,

on the basis of accounting significance ;on the basis of persons interested in them and finally but not the last on the basis of relative importance of the ratios. Some of the possible classifications are being mentioned below." (Gupta, 1990:56)

A) Classification by Statements

1) Balance sheet ratios/ Financial Ratios

- Liquidity ratios,
- Current Ratios,
- Stock Ratio,
- Proprietary Ratio,
- Capital generating Ratio.

2) Profit and loss account Ratios/ Operating Ratios

- Gross Profit Ratio,
- Express Ratio,
- Operating Ratio,
- Net Profit Ratio.

3) Balance Sheet and Profit and Loss Account Ratio or Inter Statement Ratios/ Combined Ratios/ Mixed Ratios:

- Return on capital employed
- Return on shareholders fund
- Stock Turnover
- Debtors Turnover
- Creditors Turnover
- Working capital turnover
- Current assets turnover
- Total turnover or Total Capital Turnover
- Net sale to Tangible assets

B) Classification by Users

This classification is based on the parties who are interested in making the use of these ratios. This classification includes:

1) Ratio for MGMT / MGMT Efficiency Ratios.

- Operating ratios
- Return on capital employed
- Stock turnover debtors turnover
- Solvency turnover

2) Ratios for creditors

- Current ratio
- Solvency ratio
- Creditors turnover
- Fixed assets ratio
- Assets cover
- Interest cover or debt service ratio

3) Ratios for shareholders

- Return on shareholders fund
- Capital gearing ratio
- Dividend cover
- Field rate
- Proprietary ratio
- Dividend rate
- Assets cover of share

C) Classification by Relative Importance

This classification is being adopted by the British Institute of management and includes the following groups:

1) Primary Ratios/ Explanatory ratio

- Return on capital employed
- Assets turnover
- Profit Ratio

2) Secondary performance ratios

- Working capital turnover
- Stock to current assets
- Current assets to fixed assets
- Stock to fixed assets
- Fixed assets to total assets

3) Secondary credit ratios

- Creditors turnover
- Debtors turnover
- Liquid turnover
- Current ratio
- Average collection period

4) Growth ratios

⟩ growth rate in sales

⟩ Growth rate in net assets

D) Classification by Accounting Significance

⟩ Solvency ratio

⟩ Earning ratio

⟩ Capitalization ratio

⟩ Credit ratio

⟩ Management ratios

E) Classification by Nature

⟩ Inventory ratio

⟩ Debtors and creditors ratio

⟩ Sales ratio

⟩ Earning and dividend ratio

⟩ Cost ratio

F) Classification by Purpose

This is a classification based on the purpose for which an analyst computes these ratios.

⟩ Profitability ratios

⟩ Activity ratios

⟩ Financial ratios

⟩ Miscellaneous ratios

Van Horne, 1994, in his book "Financial Management and Policy" grouped the financial ratios in the following five types:

⟩ Liquidity ratio

⟩ Debt ratio

⟩ Profitability ratio

⟩ Coverage Ratio

⟩ Market value Ratio

G) Common Classification of Ratios

In the view of the requirements of the various users of ratios, we may classify them into the following four important categories: (this is the most common, traditional classification of ratios. However, empirical evidence indicated that ratios can be classified in a variety of ways. Also, depending on their beliefs and

objectives, different authors have classified ratios differently. For a comprehensive treatment of the financial treatment)

〕 Liquidity ratios

〕 Leverage ratio

〕 Activity Ratios

〕 Profitability Ratio

LIQUIDITY RATIOS

Liquidity means the ability of a firm to meet its short term obligations and reflect the short term financial strength / solvency of the enterprise, "A firm's ability to pay its debt can be measured partly through the use of liquidity ratios." (Hampton 1986: 125)

"Liquidity ratio measures the ability of the firm to meet its current obligation." (Pandey, 1998: 108)

The most common ratios which indicate the extent of liquidity or lack of it are: I) current ratio ii) quick ratio. And other ratios are: cash ratio, internal measure, networking capital, and so on.

Current Ratio

It is the most widely used ratio based on the balance sheet. It is a ration of current assets to current liabilities. It is an indicator of the current liability of the firm. Current ratio shows the relationship between total current assets and total current liabilities.

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

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

"The current ratio is a measure of the firm's short term solvency. It indicates the availability of the current assets in rupees for every one Re of current liability."

As a conventional rule, a current ratio of 2 to 1 or more is called satisfactory. This rule is based on the logic that in a worse situation even if the value of current assets becomes half, the firm will be able to meet its obligations. The current ratio represents a margin of safety for creditors. The higher the current ratio, the greater is the margin of safety. The standard norm of current ratio may differ from industry to industry. Firm with less than 2:1 current ratio may be doing well, while, while firms with 2:1 current ratio or even higher current ratios may be struggling to meet their current obligations. This is so because the current ratio is a test of quantity not quality. The current ratio measures only total rupees worth of current assets and total rupees worth of current liabilities. It does not measure the quality of assets. Liabilities are not

subject to fall in value but current assets can decline in value. However, current ratio is a crude and quick measure of the firm's liquidity.

Quick Ratio

An assets is said to be quick if it can be converted into cash immediately or reasonably soon (generally within one month) without a loss of value. Cash is the most liquid asset.

According to Pillai R.S.N. & Bagavathi "Liquid ratio or quick ratio is the ratio of liquid assets to liquid liabilities. Liquid assets are current assets minus inventories and prepaid expenses. Like that liquid liabilities are current liabilities minus bank overdraft."

This ratio is the relationship between quick assets and current liabilities. Quick ratio or acid test ratio or liquid ratio or near money ratio can be found out by dividing quick assets by current liabilities.

'Generally, a quick ratio of 1 to 1 is considered to represent a satisfactory current financial condition. Although quick ratio is a more penetrating test of liquidity than the current ratio, yet it should be used cautiously. A quick ratio 12 to 1 or more does not necessarily imply sound liquidity position. It should be remembered that all book debts may not be liquid. It should also be noted that inventories are not absolutely non liquid. Thus, a company with a high value of quick ratio can suffer from the shortage of funds if it has slow-paying, doubtful and long-duration outstanding book debts (receivables)".

Networking Capital Ratios

The differences between current assets and current liabilities excluding short term borrowing are called net working capital or net current assets. Net working capital is not a ratio. Net working capital measures the firm's potential reservoir of funds.

$$\text{Net working capital ratio} = \frac{Net\,Working\,Capital}{Net\,Assets}$$

LEVERAGE RATIOS

"The leverage or capital structure ratio may be defined as financial ratio which throw light on the long term solvency of a firm as reflected in its ability to assure the long term creditors which regards to; i) Periodic payment of interest during the period of the loan and, ii) Repayment of principal on maturing or predetermined installment at due dates."

"The short term creditors, like bankers and suppliers of raw materials are more concerned with the firm's current debt paying bill. On the other hand, long term creditors, like debenture holders, financial institutions, etc. are more concerned with the firm's long term financial strength. In fact, a firm should have a strong short as well as long term financial position. To judge the long term financial position of the firm, financial leverage or capital structure ratios are calculated. These ratios indicate mix of funds provided by owners and lenders. As a general rule, there should be an appropriate mix of debt and owner's equity in financing the firm's assets."

There are two different, but mutually dependent and inter related, types of leverage ratios. The first type of capital structure ratios are based on the relationship between borrowed funds and owner's capital. These ratios are computed from the balance sheet and have many variations such as; a) Debt equity ratio, b) Debt – assets ratio, c) Equity assets ratio and so on. The second type of capital structure ratios, popularly called coverage ratios, is calculated from the profit and loss account. Included in this category are: a) Interest coverage ratio b) Dividend coverage ratio c) Total fixed charge ratio d) Cash coverage ratio and, e) Debt service coverage ratio.

Debt Equity Ratios

The relationship between borrowed funds and owner's capital is a popular measure of the long term financial solvency of a firm. This relationship is shown by the debt equity ratios. This ratio indicates the relative proportions of debt and equity ratios. This ratio indicates the relative proportions of debt and equity in financing the assets of a firm. The relationship between outsiders' claim and owner's capital can be shown in different ways.

One approach is to express the debt equity ratios in terms of the relative proportion of long term debt and shareholder's equity thus:

$$Debt\ Equity\ ratio = \frac{Long\ Term\ Debt}{Shareholders'\ Equity}$$

Another approach to the calculation of the Debt Equity Ratio relates the total debt (not nearly long term debt) to the shareholders equity. That is

A high ratio shows a large share of financing by the creditors of the firm; a low ratio implies a smaller claim of creditors. If the Debt Equity Ratio is high; the owners are putting up relatively less money of their own; it is the danger signal for the creditors. In brief, the greater is the debt equity ratio; the greater is the risk to the creditors. Both high and low debt equity ratios are not desirable. It is required that the ratio which

should strike a proper balance between debt and required that the ratio which should strike a proper balance between debt and equity.

Debt to Total Capital Ratio

It gives results similar to the debt equity ratio in respect of capital structure. It can be calculated in different ways one approach is.

The first approach indicates that what proportion of the permanent capital of a firm consists of long term debt. Although, no hard and fast rules exist conventionally a ratio of 1:2 is considered to be satisfactory.

The second approach measures the shares of the total assets financed by outsiders' funds. A low ratio of debt to total capita is desirable from the point of the creditors as there is sufficient margin of safety available to them. A firm should have neither a very high nor a very low ratio.

Coverage Ratio

The soundness of a firm, from the viewpoint of long term creditors, lies in its ability to service their claims. This ability is indicated by the coverage ratios. The coverage ratios measure the relationship between what is normally available from operations of the firms and the claims of the outsiders. The important coverage ratios are: i) Interest coverage ii) Dividend coverage, iii) Total coverage, and iv) Total Cash-Flow Coverage.

Interest Coverage Ratio

It is also known as "time-interest-earned ratio.' This ratio measures the debt servicing capacity of a firm in so far as fixed interest on long term loan is concerned. It is determined by using,

Interest Coverage = $\dfrac{\text{Earning before interest and Taxes (EBIT)}}{\text{Interest}}$

Or = $\dfrac{\text{Earning before Depreciation interest and taxes (EBDIT)}}{\text{Interest}}$

This ratio, as the name suggests, show how many times the interest charges are covered by the EBIT out of which they will be paid. For instance, an interest coverage of seven times would imply that even if the firm's EBIT were to decline to one seventh of the present level, the net profits available for servicing the interest on loan would still be equivalent to the claims of the creditors. Form the point of view of the creditors; the large is the coverage ratio, the greater is the ability of the firm to handle

fixed charge liabilities and the more assured is the payment of interest to the creditors. However, too high a ratio may imply unused debt capacity.

Dividend Coverage Ratio

It measures the ability of a firm to pay dividend on preference shares which carry a stated rate of return.

This ratio, like the interest coverage ratio, reveals the safety margin available to the preference shareholders. As a rule, the higher is the coverage, the better it is from their (preference shareholders) point of view.

ACTIVITY RATIOS

This ratio is also called efficiency ratio or assets utilization ratio. "Funds of creditors and owners are invested in various assets to generate sales and profits. The better the management of assets, the larger the amount of sales is. Activity ratios are employed to evaluate the efficiency with which the firm manage and utilize its assets. These ratios are also called turnover ratios because they indicate the speed with which assets are being converted or turned over into sales. Activity ratios, thus, involve a relationship between sales and assets. A proper balance between sales and assets generally reflects that assets are managed well."

Some important activity ratios are:

Inventory Turnover Ratio

"This ratio indicates the efficiency of a firm in selling its products. This ratio is also called turnover ratio or stock velocity. It measures the relationship between the cost of goods sold and the inventory level."

This ratio can be computed into two ways:

$$\text{Inventory Turnover} = \frac{\text{Cost of goods sold}}{\text{Average Inventory}}$$

To solve the problem arising out of non-availability of the required data inventory turnover ratio can be found by using,

$$\text{Inventory turnover} = \frac{\text{Sales}}{\text{Closing Inventory}}$$

It should be noticed that the first formulas is more logical than the second in calculating the inventory turnover. In the case of the first formula, both the numerator the cost of goods sold and the denominator – the average inventory are valued at cost and are comparable. While in the case of the second formula the numerator sales is

valued at market price and the denominator is valued at cost and are non-comparable. Further, the average inventory figure is more appropriate to use then the year end inventory figure because the levels of inventories fluctuate over the year. If the firm has a strong seasonal character, it is more desirable to take the average of the monthly inventory levels.

In comparing inventory turnover from year to year or from company to company it is important to have comparable data with respect to the basis of inventory valuation. For example, during a period of rising prices inventory valued on the basis of LIFO would be lower in amount than when it is valued on the basis of FIFO; cost of goods sold will then to rise but inventories (based on LIFO pricing) will tend to have a constant unit value."

"The inventory / stock turnover ratio measures how quickly inventory is sold. It is a test o efficient inventory management. In general, a high inventory turnover ratio is better than low ratio. A high ratio implies good inventory management. Thus, a firm should have neither too high nor too low inventory turnover.

Stock Turnover is used to measure the efficiency of sales. If a concern is able to effect higher volume of sales with lower quantity of stock than it can be concluded that marketing efficiency of the concern is very sound and high. Concern having too high stock turnover ratio may be operating with low margin of profit and vice versa. In fact, concerns, in whose case the frequency and quantity of sales are very high and large, may always be satisfied with low amount of profit. However, too high stock turnover may be a symptom of over rating.

"If the stock turnover is low or of smaller magnitude, than it may be assumed to indicate i) that there is slump in the business, ii) that there is over investment in stock, iii) that the closing stock has been increased just to take the advantage of expected rise in selling price or to meet the estimated rise in the future sales, v) that stock has been valued incorrectly or improperly v) that items of stock have been included in an unbalanced manner or in disproportionate manner." (Gupta, 1990: 73).

Receivables (Debtors) Turnover Ratio

"It shows how quickly receivables or debtors are converted into cash. In other words, the debtor's turnover ratio is a test of the liquidity of the debtors of a firm."

"Debtors turnover indicates the number of times debtor's turnover each year. Generally, the higher the value of debtor's turnover, the more efficient is the management of credit."

"Financial analysts apply three ratios to judge the quality or liquidity of debtors; a) Debtor's turnover b) Collection period, and c) Aging schedule of debtors."

(Pandey, 1998: p. 429)

Debtors Turnover = $\dfrac{\text{Credit sales}}{\text{Average Debtors}}$

In the case of non availabilities of the information of credit sales and average debtors the alternative method for calculation of debtor's turnover is

$\dfrac{\text{Total Sales}}{\text{Closing Debtors}}$ or $\dfrac{\text{Sales}}{\text{Debtors}}$

"It is important to note that the first approach to the computation of the debtor's turnover is superior. The effect of adopting the second approach would be to inflate the debtor's turnover ratio."

Collection Period:

"The second type of the ratio for measuring the liquidity of a firm's debtors is the average collection period. This ratio is in fact inter-related with, and dependent upon, the receivables 0- Turnover Ratio."

(Pillai , 1998: p. 1363)

The number of days for which boos debts remain outstanding is called the average collection period (ACP) and can be computed as follows.

ACP = $\dfrac{360}{\text{Debtors Turnover}}$ or $\dfrac{\text{Debtors x 360}}{\text{Sales}}$

For making calculation of ACP, we have to use sales ratio throughout the year. ACP calculated on the basis of sales for the year will give distorted and misleading picture of the firm's collection rate it sales are seasonal or rapidly growing.

"The average collection period measures the quality of debtors since it indicates the speed of their collection. The shorter the ACP, the better the quality of debtors is, as a short collection period implies the prompt payments b debtors. The average collection period should be compared against the firm's credit terms and policy to judge its credit and collection efficiency. An excessively long collection period implies a very liberal and inefficient credit and collection performance and the chances of bad debt losses are also increased on the other hand too low collection period is not necessarily favorable. Rather, it may indicate a very restrictive credit and collection policy."

Aging Schedule:

The average collection period measures the quality of debtors in an aggregative way. We can have a detailed idea of the quality of debtors through the again schedule. The

aging schedule breaks down debtors according to the length time for which they have been outstanding. The aging schedule gives more information than the collection period, and very clearly spots out the slow paying debtors.

"With the information on aging of accounts, the analysts can get an accurate picture of the investment in receivables and changes in the basic comp0osition of the investment over time." (Gupta and Ghosh, 1984: 145)

Assets Turnover Ratio

"Assets are used to generate sales. Therefore a firm should manage its assets efficiently to maximize sales. The relationship between sales and assets is called assets turnover." (Pandey, 1998:122)

This ratio is also known as investment turnover ratio. It is based on the relatio9nship between the cost of goods sold and assets / investment of a firm. Depending upon the different concepts of assets employed, there are many variants of this ratio. Some formulas are:

$$\text{Total Assets Turnover} = \frac{\text{Cost of goods sold}}{\text{Average Total assets}} \quad \text{or} \quad \frac{\text{sales}}{\text{Total Assets}}$$

Here, the total assets and fixed assets are net of depreciation and the assets are exclusive of fictitious assets like debit balance of profit and loss a/c and deferred expenditures and so on.

The assets turnover ratio, however, defines measures the efficiency of firm in managing and utilizing its assets. The higher is the turnover ratio, the more efficient is the management and utilization of the assets, while low turnover ratios are indicative of under-utilization of idle capacity. In operational terms, it implies that the firm can expand its activity level 9in terms of production and sales) without requiring additional capital investment. In the case of high ratios, the firm would normally be requited, other things being to make additional capital investments to operate at higher level of activity. To determine the efficiency of t6he ratio it should be compared across time as well as with the industry average in using the assets turnover ratios, one point must be carefully kept in mind that the concept of assets or fixed is net of depreciation.

Some analysts exclude intangible assets like goodwill, patents etc., while computing the net assets turnover. Similarly fictitious assets, accumulated losses or deferred expenditures may also be excluded for calculating the net assets turnover ratio.

Note: Total Assets = Net fixed assets + Current Liabilities.

Payable Turnover Ratio

A business concern usually purchase on credit goods, materials and services from other business concerns and suppliers. Payable turnover 9also known as creditor's velocity or creditors Turnover) shows the relationship between net purchase for the whole year and total payable (average or outstanding at the end of the year). In other words, it indicates the number of times the payables rotate in a year. Like receivables turnover it is also expressed in number of days; in that case it is known as Average payment period.

It is also significant to note that only credit purchases are taken into account for calculating payables Turnover. Net Purchase denotes all credit purchase minus purchase return. No sound criteria may be determined for the interpretation of Average Payment Period; and, there is no generally accepted rule in this respect.

Profitability Ratios

"An ability to earn maximum fro0m the maximum use of available resources by the business concerns is known as profitability. Profit is an absolute measure of earning capacity and profitability is the relative measure of earning capacity. In fact earning capacity is purely reflected in profitability and not in profit." [Gupta, 1990:59]

"Profit is the differences between revenues and expenses over a period of time. Profit is the ultimate output of a company, and it will have no future if it fails to make sufficient profits therefore, the financial manage should continuously evaluate the efficiency of its company in terms of profit. The profitability ratios are calculated to measure the operating efficiency of the company." (Pandey, 1998:124)

 "The profitability ratios are designed to provide answers to questions such as: i) Is the profit earned by the firm adequate? ii) What rate of return does it represent? iii) What is the rate of profit for various divisions and segments of the firm? iv) What is the earning per share? V) What was the amount paid in dividend? vi) What is the rate of return on equity holders? And so on." (Khan, 2000: 417)

"Profitability ratios, as the name implies provide a measure of the profitability of the firm. Managerial perception of the economic environment, competition, the firm's

product markets and decision with respect to assets and capital structure all have the impact on firm's profits. Therefore, profitability ratio may be considered to be key ratio that are a storm measure of the firms overall performance." (Goyal, 1998:213)

Generally two major types of profitability ratios are calculated.

 〗 Profitability in relation to sales.

 〗 Profitability in relations to investment.

Profitability in Relation to Sales

Gross Profit Ratio / Gross Profit Margin

Gross Profit (GP) is the difference between sales and the manufacturing cost of goods sold. This ratio express the relationship between gross profit (gross margin) and sales (net). The formula for computing this ratio is as under

Gross Profit Margin = Gross Profit

                                        Sales

This ratio indicates the average spread between the cost of goods sold and sales revenue. A high gross profit margin ratio is a sign of good management. A low gross profit margin may reflect higher cost of goods sold due to the firm's inability to purchase raw materials at favorable terms, inefficient utilization of plant and machinery, resulting in higher cost of production.

Net Profit Margin Ratio

The net profit margin is indicative of "Management's ability to operate the business with sufficient success not only to recover from revenue of the period, the cost of merchandise or services, the expenses of operating (including dep^n) and the cost of borrowed funds, but also to leave a margin of reasonable compensation to the owners for providing their capital at risk. The ratio of net profit (after interest and taxes) to sales essentially expresses the cost price effectiveness of the operation." (Hellfert, Technique of Financial Analysis, 1972 p. 53 as quoted by Khan & Jain in p.4.16)

Note: if operating ratio is deducted from1, the balance is net profit ratio; it is also implies that total of operating ratio and net profit ratio shall always be equal to 1.

This ratio is the overall measure of the firm's ability to turn each rupee sales into net profit. If the net margin is inadequate, the firm will fail to achieve satisfactory return on shareholders funds. This ratio also indicates the firm's capacity to withstand adverse economic conditions. A firm with a high net margin ratio would be in an advantageous position to survey in the face of falling sales prices, rising cost of production or declining demand. Similarly a firm with high net profit margin can

make better use of favorable conditions, such as rising selling prices, falling cost of production or increasing demand for the product. Such a firm will be able to accelerate its profit at a faster rate than a firm with a low net profit margin. (Pandey, 1998: 126)

Profitability In Relation To Investment

 Return on Investment (ROI)

"Individually the profit margin and the assets turnover have certain weakness. The profit margin ignores the money invested by the firm to earn the profit. On the other hand, the assets turnover does not consider the profit made on the use of the assets. To overcome this individually weakness the two ratios may be combined to form a return on investment (ROI). (Hampton, 199-:111).

Return on investment may be calculated into two ways.

(Hampton, 1990:111).

1 EBIT Divided by assets. The firms return on investment is a ratio of its operating income to the assets used to produce the income.

2. Assets Turnover Times Profit Margin.

The size of a firms return on investment is a functio0n of the margin of profit on sales and the amount of sales generated on the assets base.

A formula for return on investment is:

Profit Margin x Assets Turnover =   **ROI**

$$\underline{EBIT} \quad x \quad \underline{sales} \quad = \quad \underline{EBIT} \quad = \quad \text{Return on Investment}$$
Sales   Assets   Assets
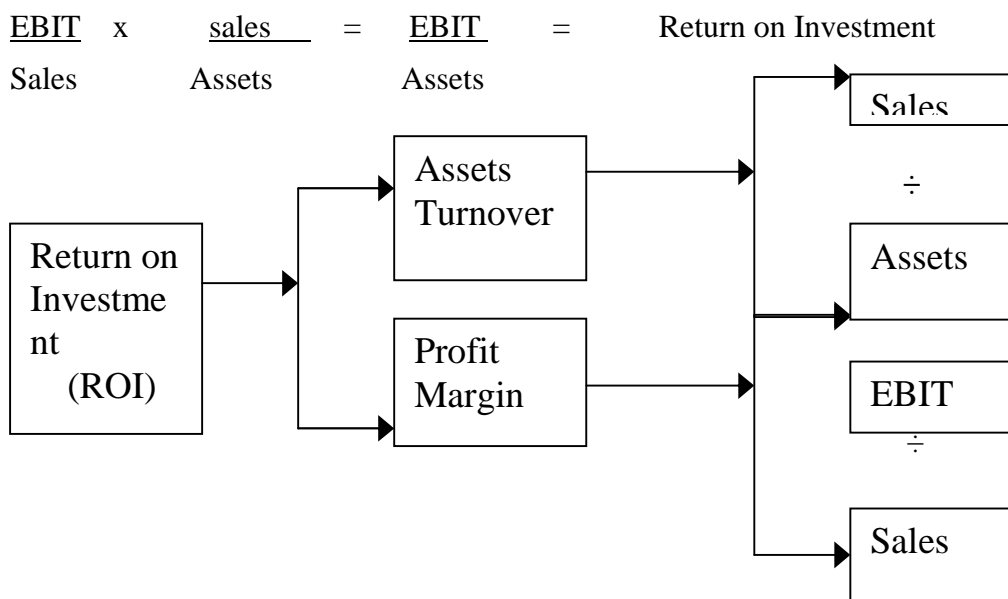
DuPont Chart

(Adopted from: J.J. Hampton, 1994: p. 111)

"There are three different concepts of investment in vogue in financial literature: assets, capital employed and shareholders equity. Based on each of them there are three broad categories of ROI. They are i) Return on Assets (ROA) ii) Return on Capital Employed iii) Return on Shareholder Equity." (Khan & Jain, 2000: 4.20)

Return on Assets (ROA)

Here, the profitability ratio is measured in terms of the relationship between net profits and assets. The ROA may also be called profit to assets ratio. There are various approaches possible to define net profits and assets, according to the purpose and nature of the calculation of the ratio. Depending upon how these two terms are defined may variations of ROA as possible.

"The concept of net profit may be: I) net profit after tax ii) net profit after taxes plus interest iii) net profit after tax plus interest minus tax saving."
(Spiller, Financial Accounting, 1977 p.653-54 as quoted by Khan & Jain)
Assets may be defined as: i) Total assets ii) Fixed Assets and iii) Tangible assets. Accordingly the different varieties of the ROA are:

These measures, however, may not provide current results for inter firm comparisons, particularly when these firms markedly vary capital structures. As a measure of operating performance, therefore equation ii) to iv) should be substituted by the following.
The ROA measures the profitability of the total funds invested of a firm, it however, throes no light on the profitability of the different sources of funds which financial the total assets. These aspects are covered by other ROI

Return on Capital Employed (ROCE)

It is similar to ROA except in one respect. Here the profits are related to the total capital employed. The term capital employed refers to long term funds supplied by the creditors and owners of the firm. The higher is the ratio, the more efficient is the use of capital employed.

Return on Shareholders Equity (ROSE)

This profitability ratio carries the relationship of return to the sources of fund yet another step further. While, the ROCE expresses the profitability of a firm in relation to the funds supplied by the creditors and owners take together, the return on shareholders equity measures exclusively the return on the owners' funds. The

profitability ratios based on shareholders equity are termed as shareholders equity. There are several measures to calculate their return on shareholders' equity: i) Rate of return on a) total shareholders' equity b) equity of ordinary shareholders ii) earnings per share iii)Dividend per share iv) Dividend payout ratio v) Dividend and earning yield vi) Price earnings ratio vii) Market to book ratio. (Khan & Jain, 2000: 4.21)

Return on Total Shareholders Equity

According to this ratio, profitability is measured b dividing the net profit after tax (but before preference dividend) by the average total shareholders equity. The term shareholders equity includes preference share capital and net worth. This ratio reveals how profitability the owners' funds have been utilized by the firm. (Ibid p. 4.22)

Earning per share (EPS)

It measure the profit available to the equity holders on a per share basis that is, the amount that they can get on every share held,

EPS   =   Net profit available to equity- holders
                   No. of ordinary share outstanding

Dividend per share (DPS)

DPS is the net distributed profit belonging to the shareholders divided by the number of ordinary share outstanding. It measures the amount of dividend distributed to each equity shareholders.

Dividend –Pay out Ratio

It measures the relationship between the earnings belonging to the ordinary shareholders and the dividend paid to them. In other words, DIP ratio shows what percentage share of the net profit after tax and preference dividend is paid out as dividend to the equity –holders. If the Dividend- Pay out Ratio is subtracted from 100 it will give what percentage share of net profit are retained in the business.

Price Earning Ratio (P/E Ratio)

The P/E ratio reflects the price currently being paid by the market for each rupee of currently reported EPS. In other words, the P/E ratio measures investors' expectations and the market appraisal of the performance of a firm.

"P/ E ratio is the reciprocal of the earning yield. The P/E ratio is widely used by the security analysis to valued the firm's performance as expected by investors P/E ratio

reflects investors' expectation about the growth in the firm's earnings." (Pandey, 2000
132)

Market – To- Book Value (M/B)

The market to book value ratio is a relative measure of how the growth option for the
company is being valued vis-à-vis its physical assets. The greater the expected growth
and value placed such, the higher the ratio. M/B ratio for established companies
ranges from 0.5 to as 8.0. The former often is associated with a company which earns
less than what the financial markets require a harvest situation and the later with a
company which earns substantially more through industry attractiveness and / or
competitive advantages." (Van Horne, 1991:706).

2.1.1 Utility and importance of financial ratio analysis

Ratio analysis is an important and age-old technique of financial analysis. The data
given in financial statement in absolute form are dumb and unable to communicate
anything. Ratios are relative form of financial data and very useful technique to check
upon the deficiency with which working capital is being used in the enterprise. The
following are some main importance of the financial ratio analysis.

- Ratio analysis simplifies the financial statement. It tells the whole story of
change in the financial condition of the business.
- Ratio analysis provides data for inter- firm comparisons and inter firm
comparison
- Ratio analysis helps in planning and forecasting
- Ratio may be used as measures of efficiency for inter- firm and intra- firm
comparisons. (Pillai & Bhagavathi,1998:1340)
- Ratio analysis is also helpful for effective control of the business
- Ratio analysis is also very helpful for decision making
- For simple assessment of liquidity, profitability, leverage and activity position
of the firm, the ratios are very useful
- Ratio analysis helps evaluate the financial condition and performance of a
company
- Ratio analysis is helpful to analyze the creditors
- To analysis of the securities, ratio analysis is a very useful tool.

2.1.2 Limitation of Ratio Analysis

In the fast- changing world it is difficult to take with the pace of change due to the arrival of unforeseen difficulties every study always bounded by some limitations. Some limitations of financial ratio analysis are given below:

) Qualitative factor may be more important than the quantitative factors; the ratio analysis ignores the qualitative aspect, as it is basically a quantitative analysis.

) The quality of the ratios depends upon the quality of the accounts on the basis of which these are established. The ratio can only be accurate if the books of accounts are correctly drawn up. The financial statements because the ratio is based on the information provide this.

) The comparability of ratio suffers, if the price of the commodities in two different years is not the same. In reality, price does not remain the same and the ratio analysis does not have an inbuilt mechanism to adjust the changing prices. A ratio can be accurately interpreted only if the effect of change in price, which may have taken place in adjusted in the figure used in the ratio.

) Ratio analysis is basically historical in nature since the financial statements on the basis of which the ratio are established, are historical in nature. Unless the ratio analysis is based on the projected financial statements prepared to plan the future.

) Ratios are only indicators; they can not be taken as final regarding good or bad financial position of the firms. No ratio may be regarded as good or bad, it may be an indication that a firm is weak or strong, but it must never be taken as proof either one.

) Another limitation is that of standard ratios with which the actual ratio may be compared. Generally, there is no such ratio, which may be treated as standard for the purpose of comparison, because conditions of concern differ significantly from those of another concern and over the years of the same concern.

) The current economic conditions are ignored. [(Ibid, p. 1341)

) Ratios are simply means not end

) It is a guide rather than solution to present problem and future plans

) It is difficult to find out a proper basis of comparison. It is recommended to compare with industry average but the industry average is not easily available

2.1.3 Predictability of Financial Ratios

By seeing so many limitations of financial ratios, can we say that financial ratios have no meaning? Or, one can say that financial ratios are meaningless or useless things? Or, can financial ratios do nothing for the financial analysis? The answer is very short." No." in the presence of so many limitations, financial ratios can help a lot for analyzing the financial strength of a company. It is sure that financial ratios can not predict accurately or exactly but is able to give some clues about the firms' financial performance. Financial ratios can help a lot to analysis the creditors, security, and many other things. Financial ratios help to make future plans decision making and other important correction for the further progress, so financial ratios have come predictive power too.

In predicting the future value of the stock, an investor might feel that the return on investment ratio and various profit margin ratios would be the greatest help. Most estimates of the predictive power of financial ratios are based on the analyst's past experience with them. By their very nature, then, these estimates tend to be subjective and to differ from one analysis to the next.

"A number of empirical studies have tested the predictive power of financial ratios. In many of these studies, financial ratios are used to predict business failure. Others have tested the power of financial ratios to predict corporate bond ratings with these ratios as the dependent variable, regression analysis and discriminate analysis have been employed, using various financial ratios for a sample of companies. The best ratio for the predictive purposes are debt- to equity , cash- flow- to – debt coverage and its stability, return on investment, size and earning stability. On the basis of these studies, it appears that a handful of ratios can be used to predict the long term credit standing of a firm." (Van Horne, 1991, 707)

2.2 Review of Articles and Journals:

Under this headings effort has been made to examine and review of some related articles published in different economic journals, magazines, newspapers and related books. Modern commercial banks have various kinds of sets in their possession. Generally the size & volume of the asset depend on the scientific and rational management of asset.

A successful performance of the bank in the economy is determined by size of market, the development of trade and commerce, the existing discount and money market for assuring the safety and liquidity off assets. With regard to the distribution

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of bank's assets the theory of commercial loan and industrial loan has been an issue of controversy between bankers and economist. The commercial banks hold the view that the bank should confine them to advancing short-term loan of self-liquidating nature, where as industrialist hold their activities also to granting long term loans for development of country's industry. Economist upholds their views for granting of long-term advance side by side with the short-term loans. There are three main principles which the commercial banks adhere to. They are:

1.) Profitability 2.) Safety 3.) Liquidity

Profitability: It is the objectives which earn maximum profit. Banker naturally likes to use a high percentage of its total resources in loans & advances.

Safety: Here safety means stability of volume of assets over a particular period of time and credit worthiness of debtors in payments of interest and repayment of the principles. If the interest rate is raised above the expected level, we say the assets are risky and vice-versa. The credit worthiness of the debtors is another measure for degree of safety in the assets.

Liquidity: Liquidity means protection against the risk. The latter might occur if the banks are forced to sell the credit worthy assets in adverse marker to meet the demand depositors. That is liquidity means not only the bank's ability to meet the possible withdrawals of demand depositors but also to provide the legitimate credit need of the community as well. (Aryal, 1967-1970, p.63)

Likewise, Mr. Khem Raj Baral, the senior officer of Rastriya Banijya Bank said in his writing "Deposit Mobilization in commercial banks" that branch expansion increase in deposit interest rates, proper facilities to customers, deposits insurance policy, deposits from semi-government organization can help to collect more deposits and by expending commercial bank branches and suitable rates play an important role in mobilization of the collected deposits.

An article on "Basel Capital Accord: past, present and future" try to explain on requirement of Basel Capital is that the Basel Capital Accord is a manual for capital measurement and capital standards. The Accord is prepared by Basel committee on banking supervision. The Basel committee issued the first Basel Capital accorded in 1988. By the end of 1992, the capital accorded was implemented world wide. The present NRB directives on capital fund (Directive No. 1) are based on Basel Capital accorded in 1988.

The Basel Capital accorded in 1988 has provided that the capital fund of a bank should be based on the measurement of risks associated with the assets of the bank. The assets could be on and off balance sheet items. The total capital fund is calculated by adding up the amount of tier-1capital and tier-2 capital.

Tier-1 capital which is called core capital consists of share capital, share premium, non-preference share, general reserve funds, cumulative profit/loss and current year profit.

Tier- 2 capital also known as supplementary capital consists of loan loss provision, exchange equalization reserve, assets revaluation reserve, hybrid capital instruments, unsecured subordinated term debt, interest rate fluctuation fund and other free reserve. The capital adequacy ratio is the ratio of total capital find to total risk weighted assets. The Basel Capital Accorded 1988 had set the target standard ratio of capital to weighted risk assets (Capital Adequacy ratio) at 8 % (of which the core capital element was at least 4%).

The Basel Capital Accorded 1988 only focuses on a single risk measure to overcome such draw back in June 1999 the Basel committee released a proposal to replace the 1988 accord with a more risk sensitive framework. After going through the comments received from various sources, the committee published the new Basel Capital Accord in 2001 to be implemented by 2006.

Dr. Govida Bahadur Thapa has express his view that the commercial banks including foreign joint venture banks seem to be doing pretty well in mobilizing deposits. Likewise loans and advances of these banks are also increasing. But compared to the huge credit needs particularly by the newly emerging industries the bank still seems to lack adequate finds. The banks are increasing their lending to non-traditional sectors along with the traditional sectors. (Thapa, 1994:15)

A provision requiring the commercial banks established to operate in the Kathmandu valley are required to maintain compulsory a minimum capital fund of Rs. 500 million by the end of the fiscal year. The amount under the headings of paid-up capital, general reserve, share premium, non-redeemable preference share and retained earning would be considered for calculating the minimum capital funds. The commercial banks could mot use the retained earning included in the core capital funds to the extend of the minimum capital funds failing short of Rs.500 million till

the end of fiscal year, they were not allowed to declare and distribute the dividend and bond.

2.3 Review of Related Dissertation:

Under this heading, effort has been made to examine and review of some related unpublished dissertation.

Nepal, Binod (2004) has carried out his study on *"An Analysis on Working Capital Management with Special Reference to Hetauda Textile and Balaju Textile."* The main objective of this study is to analyze the liquidity, long term solvency, assets utilization and profitability position of both industries and to make an overall comparison of working capital management of both companies. The major findings of this study are as follows.

➢ The liquidity position of Hetauda textile ltd. was better than that of Balaju textile Ltd. But both companies have not followed a proper working capital policy.

➢ Total assets turnover of both companies was not satisfactory and there was not significant difference of total assets turnover.

➢ Cash balance maintained by Balaju textile Ltd. was better than that of Hetauda textile.

➢ Solvency position of Hetauda textile was better than that of Balaju textile.

➢ Profitability position of Hetauda textile was better than that of Balaju textile; however both companies have not good profitability position during the study period.

Karki, Nirmal (2005) has conducted a study on "*Comparative Study of working capital management of Nepal Bank Limited and Nepal Arab Bank limited.*" The main objective is to analyze the comparative study of working capital management of NBL and NIBL. The major findings of the study are as follows:

➢ The liquidity position of NBL is better than that of NIBL.

➢ NIBL has better turnover and investment efficiency on loan and advance than NBL. So the management of loan and advance is more problematic in NBL than NIBL.

➢ Profitability position of NIBL is far better although NBL earned higher interest than NIBL.

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He has recommended that both banks should adopt matching working capital policy rather than conservative policy. He has also recommended that both banks should give attention to collect over

Dated loan and advances and utilize the idle funds. High cost deposit should be reduce to minimize operating cost and maximize profit.

Parajuli, Bharat (2006) conducted a study one evaluating the financial performance of Nepal Bank Ltd. The basic objective of study was to evaluate financial performance of this bank from FY 2000/01 to 2005/06. Other objectives of the study were, to examine the trend of deposit mobilization along with the cost of deposits to assess the investment portfolio of the bank, to measure liquidity, profitability and operating efficiency of the bank, to evaluate the earning power and dividend paying ability of the bank.

He concluded that investment portfolio of the bank had nit been managed so efficiently to maximize the returns therefore, the bank was suffered from series of operational losses over the period. So, operational efficiency was not satisfactory. Likewise, allocation of the loans and advances by the bank was not as meaningful as the productive sector had little share in the loan portfolio. Similarly lower return on investment and lower market value of the banks share as against the book value was a reflection of the weaker financial performance of the bank. Nothing was satisfactory except liquidity position.

Adhikari, Sumitra (2007), entitled with *"A Study of Non Performing Loan & Loan Loss Provision of Commercial Bank, A Case Study of NIBL, SCB and NBL"* has made study about a part of credit risk associated with those banks. The main objectives of her study were:

) To find out the proportion of non-performing loan in the selected commercial banks.

) To find out the factors leading to accumulation of non performing loan in commercial banks

) To study and analyze the guidelines and provisions pertaining to loan classification and loan loss provisioning.

) To find out the relationship between loan and loan loss provision in the selected commercial bank.

) To study and the impact of loan loss provision on the profitability of the commercial banks.

The major finding in her study was that the NBL has the highest portion of the loan in total asset followed by NIBL and KBL. She concludes that the SCBL shows the risk-averse attitude. Likewise the non-performing loan to total loan is found highest in NBL, NIBL and KBL. Likewise the Loan Loss Provision is also highest in NBL where as the SCBL has the least Loan Loss Provision.

Likewise, the NBL has the highest portion of Loss loan followed by NIBL and SCBL. This study is more concentrated on non-performing loans; however, there exist lots of areas in credit risk management where further research is called for. In context of credit risk, collateral risk, concentration risk, organization risk management system can be studied.

Sapkota, Arjun (2008) "Deposit Mobilization of commercial Banks in Nepal" has concluded that the commercial banks have not been successful in the mobilization of deposits collected by the commercial banks. It is because of the facts that the commercials have not been able to motivate and facilitate to their clients except to change in the rate of interest. On the end, she recommended that banking services should be extended in more other area including rural area by which amount of investment will be increased.

Shrestha, Prem Bahadur (2009) in his study on "Capital and Assets Structure Management of Commercials Bank in Nepal" is on the basis of financial and statistical analysis, finding issues and gaps of the study. He remarked that the existence of a commercial bank in today's competitive banking environment is largely depends upon its financial strength and sound internal management. Negligence in designing, efficient organization structure, capital and assets structure, plans and programs could be the main cause of various crises in the bank and one of the main reasons of a bankruptcy.

Motivation, training programs and other co-ordination programmers may be the significant ingredients for the conceptual development and for adequate knowledge, which may lead to innovate in policy formulation. Finally better performance through capital control and efficient internal and external management will ensure the effectiveness of bank capital and assets structure management policy.

Amatya, Dinesh Raj (2010) "Financial Analysis of Joint venture Banks in Nepal" tries to find out trend of deposits and loans of NIBL Bank and KBL Bank. Besides this his objectives are to evaluate the liquidity, profitability, capital structure, activity and

capital adequacy of these banks. He remarked that banks should operate new utilization of same as well as to increase their transaction and to provide financial services and facilities to more customers. It is recommended to increase its cash and bank balance as well as Money at call for improving its liquidity position.

CHAPTER- THREE
RESEARCH METHODOLOGY

Researcher needs sequential steps to adopt realistic study or studying a problem with certain object/objects in view. So that, Through Research methodology researcher can get appropriate guidelines and knowledge about the various sequential steps to adopt a systematic analysis. Research Methodology is the investigation tools of any certain area and it means clearly observation of certain objective. Research is the process of systematic and in-depth study or search for any particular topic, subject or area of investigation backed by collection presentation and interpretation of relevant details or data.

Research is a systematic & organized effort to investigate a specific problem that needs a solution. This process of investigation involves a series of well through out activities of gathering, recording analysis & interpreting the data with the purpose of finding answers to the problem. Research methodology suggests the systematic way to solve the research problem. Basically it consists of the research design, the nature and sources of data, data collection tools, population and sample, data analysis tools, research variables and research questions.

3.1 Research Design

The overall plan of the proposed study is made to specify the appropriate research methods and procedures for obtaining specific findings as objectively, accurately and economically as possible. The planning of subject matters studied are balance-sheet, profit and loss account, loan classifications and their provisioning, of sample selected banks and the directives issued by NRB regarding the loan classifications and their provisioning matters.

The populations of the study are taken the whole commercial banks in the banking operations while samples are taken Nepal SBI Bank Limited and Everest Bank Limited. As per the nature and requirement of the study, descriptive research design is adopted with analytical approach.

3.2 Sample and Population:

The large group about which the generalization is made is called population under study, or the universe and small portion on which the study is made is called the sample of the study.

Nowadays a number of commercial banks have been emerging rapidly. Some have already been established and others are in the process of establishment. Currently, there are 32 commercial banks are in Nepal. In this study, all the commercial banks are population of the study. Among them Everest Bank and Nepal SBL Bank has been selected as samples for the present study.

3.3 Nature and Sources of Data

The major portion of the data collected is from the secondary sources. The sources include the published annual reports of concerned banks, the different periodical publication of Research Department and Bank and Financial Institutions Regulation Department of NRB as well. The different websites related to the required data are also visited during the data collection.

3.4 Methods of Data Analysis:

The gathered data, especially the profit and loss account and Balance sheet of the banks will have been analyzed to get the desired objectives with the help of various financials as well as statistical tools. Besides these, some graph charts and tables will also have presented to analyze and interpret the findings of the study. The objectives of the study and availability of the data limit selection of the tools. To light out about the assets and liabilities management of these two banks, it will be mainly used tabular and graphical, financial and statistical tools for the conclusion and recommendation.

A) Analysis by Tabular and Graphical Presentation:

Tabular presentation usually depicts the data of different period of time presented in attractive manner and graphical presentation means presenting those data in the graph. Here in this section, it has been tried best to present data relating to balance sheet and income expenditure account in very precise manner. There are many items in these account but few items like loans and advance, investment and deposit are few of those important variable balance sheet. Operating profit is the other important variable of income and expenditure account. So in order to analyze the assets and liabilities

management of selected joint venture banks, first the tabular presentation has been dine and later presented in graph.

B) Financial Tools:

Financial tools are used to examine the financial performance i.e. strength of weakness of a bank. In this study financial tool like ratio analysis has been used.

Ratio Analysis

The ratio analysis involves comparison for a useful interpretation of financial statements. With the help of ratio analysis the quantitative judgment regarding financial performance of a firm can be dine. Several ratios can be grouped into various classes according to financial activity for the calculation of accounting data. In the view of requirement of various users of ratio may classify into following four groups.

1. Liquidity ratio
2. Activity ratio
3. Profitability ratio
4. Capital Adequacy ratio

Liquidity ratio- It measures the firm's ability to meet current obligation. The following ratios are evaluated under liquidity ratio.

a. Current ratio
b. Cash and Bank balance to Total Deposit ratio.

The current ratio is compared as:

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

Cash and Bank balance to Total Deposit ratio is calculated as:

$$\text{Cash \& Bank balance to Total Deposit ratio} = \frac{Cash\ and\ BankBalance}{Total\ Deposits}$$

Activity ratio- It reflects the firm's efficiency in utilizing its assets.

a) Loan and advances (total credit) to total deposit ratio.
b) Total investment to total deposit ratio.
c) Performing assets to total assets.

Loan and advances (total credit) to Total Deposit ratio

This ratio measures the extent to which the banks are successful to mobilize the outsider's funds (total deposit) in loan and advances for the purpose of profit generation. This ratio is calculated as:

$$\text{Total Credit to Total Deposit ratio} = \frac{Total\ Credit}{Total\ Deposit}$$

Total investment to Total Deposit ratio

This ratio measures the mobilization of percentage amount of total deposit on investment. Thus, it is calculated by the amount of total investment by total deposit as:

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

Performing Assets to Total Assets

Performing assets for the purpose include those assets which have been invested in loans and advances; bill purchased and discounted investment and money at call. Higher ratio indicates the higher utilization of resources in relation to total assets and yields a higher return for the banks. The ratio can be calculated as:

$$\text{Performing Assets to Total Assets} = \frac{Perfor\min g\ Assets}{Total\ Assets}$$

Profitability ratio- It measures over all performance and effectiveness of the firm. Profitability position of commercial banks can be evaluated following ratio.

    a) Return on total assets (ROA)

    b) Return on total deposit (ROD)

    c) Return on risky assets i.e. loan and advances

    d) Interest earned to total assets.

Return on Total Assets

This ratio is calculated to reveal the over all operating efficiency of a firm. It indicates the earning power of the banks. It is calculated by dividing the amount of net profit by amount of total assets.

$$\text{Return on Total Assets} = \frac{Net\ \Pr ofit}{Total\ Assets}$$

Return on Total Deposits

This ratio is calculated to find out efficiency towards its deposit mobilization. Generally, higher ratio indicates proper utilization of total deposits and vice versa.

The ratio can be computed as:

$$\text{Return on Total Deposits} = \frac{Net\ Profit}{Total\ Deposit}$$

Return on Risky Assets

This ratio measures profitability of the banks, which shows the percentage of net profit against risky assets (loan and advances plus bills purchased and discounted). It can be calculated by dividing net profit by risky assets.

$$\text{Return on Risky Assets} = \frac{Net\ Profit}{Total\ Risky\ Assets}$$

Interest earned to Total Assets

Bank's main sources of income are the interest earned from loans, advances and investments. Hence higher the proportion of risk assets and investment in total assets, higher the interest earned to total assets ratio. Interest earned to total assets ratio measures the percentage of interest earned in relation to total assets of the banks and shows the efficiency of banks in earning assets. It can be calculated by dividing total interest earning by total assets.

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

Capital Adequacy ratio- It maintains sufficient amount as capital fund. The following ratios are evaluated under capital adequacy ratio:

   a. shareholder's fund to total deposit ratio
   b. shareholder's fund to total asset ratio

Shareholders' fund to Total Deposit ratio

This ratio shows whether commercial banks are maintaining sufficient amount as capital find or shareholder' fund in comparison to the amount of their total deposits. It is calculated by dividing total shareholder' fund by deposits:

$$\text{Shareholder' Fund to Total Deposit ratio} = \frac{Total\ Shareholders'\ Fund}{Total\ Deposits}$$

Shareholder' Fund to Total Asset ratio

This ratio is very essential for every financial institution have a balance of required percentage of total assets as shareholder' fund i.e. Capital fund, shareholder' fund to assets ratio measures the relative claims of owners of the bank over the bank's asset. It is calculated by dividing total shareholders' fund by total assets ratio:

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

C) Statistical Tools

Statistics is a body of methods of obtaining and analyzing data in order to base decision on them. It is a branch of scientific method used in dealing with phenomena that can be described numerically either by counts or by measurements. Thus the word statistics refer to a method of dealing with quantitative information.

Webster defined statistics as "the classified facts represented by the condition of the people in state especially those facts which can be stated in numbers or in tables of number or in any tabular or classified arrangement."(Shrestha, p.21)

Yale and Kendall defined statistics as 'By statistics we mean quantitative data affected to a market extend by multiplicity of causes.'(I bid.)

The coefficients of Correlation, calculation of probable error, trend analysis are applied on statistical analysis to achieve the objective of study.

Coefficient of Correlation

Coefficient of Correlation is defined as the "relationship" or (association) between (among) the one dependent variable or factor and one (or more than one) independent variable(s) or factor(s).

Of the several mathematical methods of measuring correlation, the Pearson's method popularly known as Pearson coefficient of correlation is denoted by the symbol 'r'.

$$r = \frac{N \sum XY - \sum X \sum Y}{\sqrt{N \sum X^2 - (\sum X)^2}\sqrt{N \sum Y^2 - (\sum Y)^2}}$$

Probable Error (PE) of Correlation Coefficient:

The probable error of the correlation coefficient is applicable for the measurement of reliability of the computed value of the correlation coefficient "r". The probable error (PE) is defined by

$$PE = 0.6745 \left| \frac{1 - r^2}{\sqrt{N}} \right.$$

Where,

r= correlation coefficient

N= number of pairs of observation

If r < PE, the value of r is not significant

If r > PE, the value of r is significant i.e. correlation is significant (Shrestha: 2000:315).

Trend Analysis

Trend analysis is very useful in terms of both commercial banks and to the shareholders. Though analysis bank can estimate the future investments, opportunities, rate of return, deposit liabilities etc, whether to stick in the present growth rate or to invest in the bank or to leave as per the satisfaction of the growth rate. For depositors it provides degree of safety in the form of financial credit the worthiness of the bank in the future and the borrowers, it assures about the financial capability of the bank to furnish their loans and advance in the future provided that the present trend continues.

Trend analysis can be calculated by following steps:

N= no. of years

X= deviation from base year

Y= financial variables of which trend analysis to be done

The regression equation of Y on X

$$Y = a + bx$$

a= Numerical constant which measures the distance of the fitted line directly above or below the origin or Y intersect.

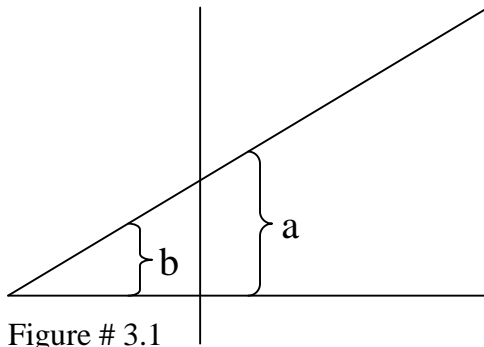b= Numerical constant which measures the change in Y per unit or slope of line.

Figure # 3.1

Note that 'a' and 'b' are also called parameters of the line. The following two normal equations are solved simultaneously to find out the values of 'a' and 'b'. (Shrestha, 2000:339)

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CHAPTER FOUR
PRESENTATION AND ANALYSIS OF DATA

The data collected from various sources are presented, analyzed and interpreted in this chapter. Different analytical tools have been used to analyze and interpret the data following the research methodology explained in previous chapter. Data collected from different sources has been first tabulated and hence interpreted with the help of various financial and statistical tools.

Financial Analysis

4.1 Analysis of Ratios:

4.1.1 Liquidity Ratios:

The liquidity ratios measure the liquidity position and short term solvency indicating the firm's ability to meet short-term obligations. A firm should ensure that it does not suffer from the liquidity crunch and also that it is too much highly liquidity. There should be a proper balance between liquidity and lack of liquidity. The very high degree of liquidity results in an idleness of assets whereas low degree of liquidity results in a poor creditworthiness, loss of creditor's confidence and even shutdown of the firm.

A bank must be ensuring that it has a sound liquidity position to face the instant claim by its creditors. Therefore, in order to protect bank's solvency and to honor its short\term obligations or liabilities, adequate liquidity are must. Regarding this NRB has directed al banks to maintain adequate Cash Reserve Ratio (CRR).

In the following section, Current ratio and Cash & Bank Balance to Total Deposit ratios are calculate for the review period of two banks.

Current Ratio:

The ratio is calculated by below formula:

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

Components:

Current Assets includes cash and those assets which can be converted into cash within the year; such as cash in hand or at bank, money at call, investment in the government securities, short-term loans and advances, bills for collection, balance with banks and other assets. Similarly, current liabilities include obligations maturing within a year, such as deposits, sundry creditors, borrowings, bills payable and other liabilities.

Some adjustments were made while calculating current ratio. They are as follows:-

- ✓ 80 percents of loans, advances and Bill purchased are considered as short-term obligations.

- ✓ 50 percents of fixed deposits are considered as long term obligation.
- ✓ Loan loss provision, provision for gratuity is excluded from other liabilities.

The idle standard of the current ratio is 2:1.

Computation of Current Ratio of NSBL and EBL

For the period 2006/07 to 2010/11

Table 4.1

Current Ratio Analysis

(**Amount in '000'**)

Years\Banks	NSBL	EBL	Average of Ratios
2006/07			
Current Assets	5,738,212.81	10,388,181.63	16,126,394.44
Current Liabilities	3,635,704.26	5,939,035.83	9,574,740.09
Ratios	1.58	1.75	1.68
2007/08			
Current Assets	7,349,323.20	12,337,046.63	19,686,369.83
Current Liabilities	4,214,605.37	7,197,706.41	11,412,311.78
Ratios	1.75	1.71	1.73
2008/09			
Current Assets	9,036,145.69	10,586,653.12	19,622,798.81
Current Liabilities	5328,973.20	6,762,944.31	12,091,917.51
Ratios	1.70	1.57	1.63
2009/10			
Current Assets	11,419,224.11	10,039,441.37	21,458,665.48
Current Liabilities	6,316,975.37	6,181,986.31	12,498,961.69
Ratios	1.81	1.62	1.72
2010/11			
Current Assets	11,700,503.71	6,120,013.78	17,820,517.48
Current Liabilities	6,724,242.46	5,154,105.48	11,878,347.94
Ratios	1.74	1.19	1.50

Table 4.1 shows that Current Ratios of these two banks are highly fluctuating. The highest ratio pointed at 1.81 of NSBL during the year 2009/10 and the lowest ratio pointed to 1.19 of EBL bank Ltd. during the year 2010/11.

The current ratio of each banks are more than one during the five periods. Therefore, in the case of current assets both banks under study contained more than its liabilities. This signifies that both banks had inadequate current assets to pay short-term obligation. Though the idle standard of the current ratio is 2:1 but none of the banks can perform the standard.

Graphical presentation of Current Ratio of both Banks:

<div align="center">

Average of Current Ratio for the period

Ending 2006/07 to 2010/11

Figure 4.1 Current Ratio Analysis

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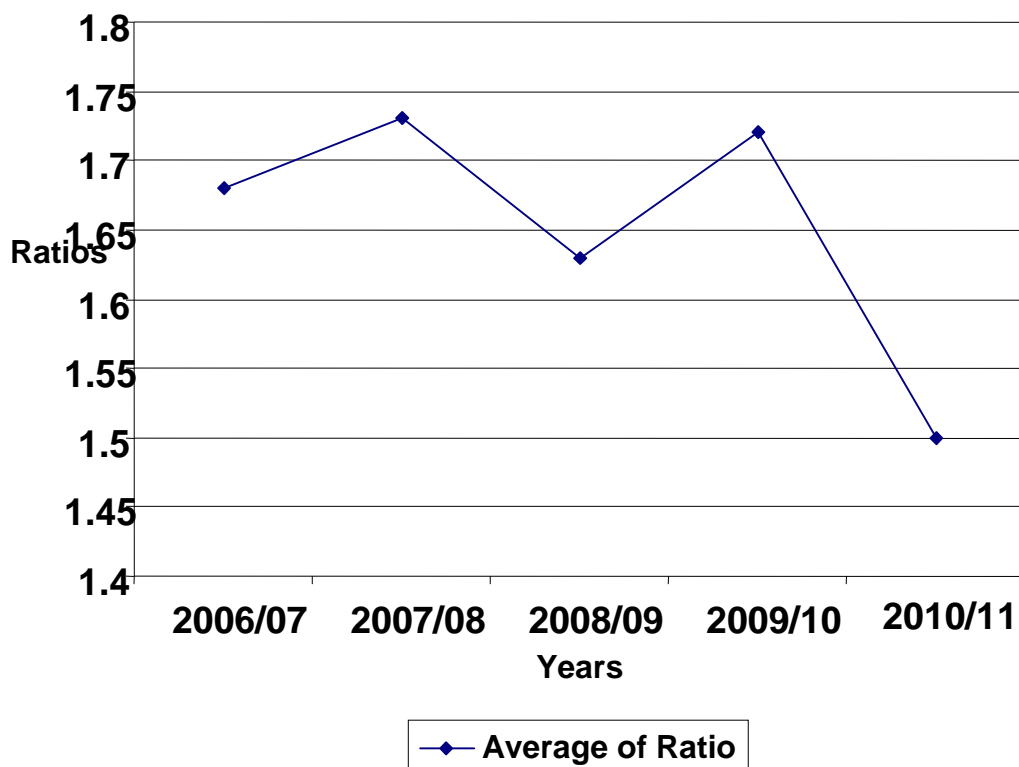
Graphical presentation of current ratio of two banks shows that current ratios of these banks are highly fluctuating. During the year2006/07 the average current ratio is 1.68, after that it increases to 1.73 in 2007/08, again it decreases to 1.63 in 2008/09 and again it increases to 1.72 in 2009/10 and there after decreases to very less point in 1.50 in the year 2010/11.

Cash and Bank Balance to Total Deposit Ratio:

Like current ratio, banks have to maintain certain amount of cash in order to ensure enough liquid to face heavy deposit withdrawals. Cash and Bank balance to Deposit

ratio indicates the ability of the banks to immediately fund the withdrawals of their various deposits. This ratio is computed by cash and bank balance divided by total deposits to meet their daily requirements and deposits and vice versa.

Banks have to be prepared for the high amount of withdrawal situation, but some banks had very less amount of cash and bank balance is also disadvantageous because it will lack up the capital since it return back nothing. This also shows the inability of bank to invest in more productive sector like government securities, treasury bills etc. to enhance its profitability.

The ratio is calculated by below formula:

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

Assumption:

50 percents of fixed deposits are considered as long-term obligation therefore it is not included in total Deposits.

Computation of Cash Bank Balance to Total Deposit Ratio of two banks for the period ending 2006/07 to 2010/11.

Table 4.2

Cash and Bank Balance to Total Deposit

(Amount in '000')

Years\Banks	NSBL	EBL	Average of Ratios
2006/07			
Total Cash & Bank Balance	784,531.20	899,512.73	1,684,043.93
Total Deposit	5,432,165.50	5,295,540.55	10,727,706.05
Ratios	14.44%	17%	15.70
2007/08			
Total Cash & Bank Balance	864,426.80	1,436,472.86	2,300,899.66
Total Deposit	3,599,163.71	6,403,688.16	10,002,851.87
Ratios	24.02%	22.43%	23%
2008/09			
Total Cash & Bank Balance	723,745.30	1,401,766.37	2,125,511.67
Total Deposit	4,327,387.11	6,062,789.13	10,390,176.24
Ratios	16.73%	23.12%	20.47%
2009/10			
Total Cash & Bank Balance	1,118,158.41	1,694,684.89	2,812,843.30
Total Deposit	5,501,020.32	6,507,568.10	12,008,588.42
Ratios	20.33%	26.04%	23.42%
2010/11			
Total Cash & Bank Balance	1,122,690.23	1,164,053.12	2,286,743.35
Total Deposit	5,722,643.02	4,692,974.78	10,415,617.80
Ratios	19.62%	24.80%	22%

Table 4.2 shows that both banks are in fluctuating trend. The range of Cash and Bank Balance of EBL is highest than NSBL in fiscal year 2009/10 with a ratio of 26.04% and the lowest is 14.44% of NSBL in the year 2009/10. NSBL has highest in the year

2008/09 which is 24.02% and lowest in the year 2006/07 which is 14.44%. Likewise, EBL has highest 26.04% in the year 2009/10 and lowest in the year 2006/07 which is 17%.

According to Table 4.2, it may conclude that the cash and bank balance position with respect to total deposit has better performance in case of EBL because EBL is almost double ratio comparing to NSBL. On the contrary, the lowest ratio of cash and bank balance signifies that the banks have burden more idle money. Thus, these banks could invest more.

Graphical Presentation of Cash & Bank Balance to Total Deposit of both Banks:

Average of Cash Bank Balance to Total Deposit Ratio

For the period ending 2006/07 to 2010/11

Figure 4.2

Cash and Bank Balance to Total Deposit
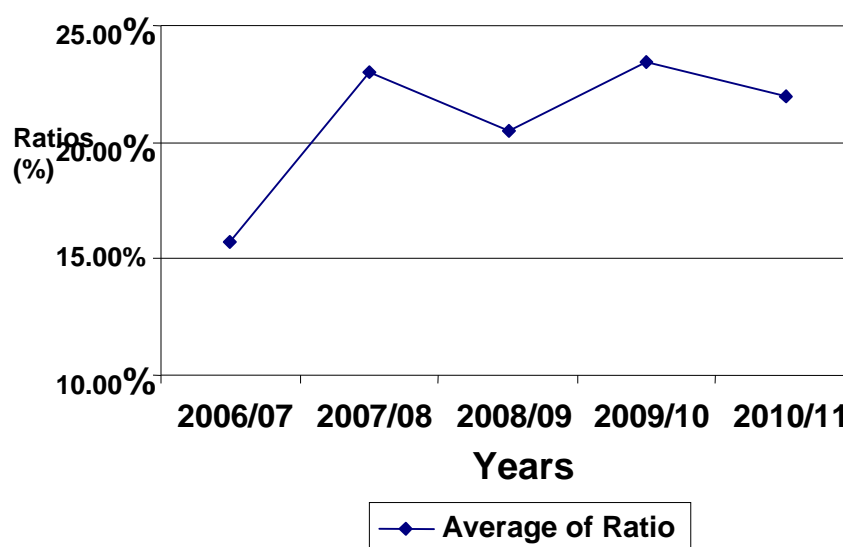
Graphical presentation of Cash and Bank balance to total deposit ratio of both banks show that the ratios are highly fluctuating. During the year 2006/07, average cash and bank balance to total deposit ratio is 15.70% after that it increase to 23% in 2007/08, again it decreases to 20.47% in 2008/09. There after again it increases t o23.41% in 2009/10 and then decreases to 22% in the year 2010/11. Therefore this trend indicates that cash and bank balance to total deposit ratio is in increasing trend because it is high in the year 2010/11 comparing to 2006/07.

4.1.2 Activity (Utilization) Ratios:

The funds of creditors and owners of the banks, which are reflected under Liabilities side of the Balance Sheet, form the sources of fund, whereas the loans & advances, and investments reflected under the Assets side of the Balance Sheet are the uses of Funds. These funds are invested by the banks in various assets to generate profit margins. Activity ratios are employed to evaluate the efficiency with which the bank manages and utilized the funds.

Activity ratios indicates the degree of efficiency in Assets Management, hence they are often referred to as efficiency ratios. In this section, some of the efficiency ratios are calculated to assess the banks efficiency in utilizing the available resources.

Loan and Advances (Total Credit) to Total Deposit Ratio:

Banks makes profit by lending or utilizing the deposited funds by charging a higher rate of interest to the borrowers than they pay to the depositors. The core banking function is to mobilize the funds from the depositors to the borrowers. Hence, they are known to be efficient in utilizing the funds they can advance a greater proportion of the deposited funds into Risky Assets. Loans and Advance to Total Deposit or Total Credit to Total Deposit ratio measures the extent to which the banks are successful to mobilize the outsiders' fund.

Loan and Advances to Total Deposit ratio is calculated by dividing Total Credit by Total Deposits:

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

Assumption:

Total Credit = Bill Purchase & Discount + Loans and Advances & Overdraft

Computation of Total Credit to Total Deposit Ratio of two banks

For the period ending 2006/07 to 2010/11

Table 4.3

Total Credit to Total Deposit

(Amount in '000')

Years\Banks	NSBL	EBL	Average of Ratios
2006/07			
Total Credit	4,832,793.23	7,247,980.13	12,080,773.36
Total Deposit	10,864,331.03	10,591,081.09	21,455,412.12
Ratios	44.48%	68.44%	56.31%
2007/08			
Total Credit	5,143,662.08	8,648,743.60	13,792,405.68
Total Deposit	7,198,327.43	12,807,376.33	20,005,703.75
Ratios	71.46%	67.53%	68.94%
2008/09			
Total Credit	6,213,878.78	7,787,690.37	14,001,569.15
Total Deposit	8,654,774.21	12,125,578.26	20,780,352.46
Ratios	71.80%	64.23%	67.38%
2009/10			
Total Credit	7,626,736.14	6,460,246.40	14,086,982.54
Total Deposit	11,002,040.63	13,015,136.11	24,017,176.74
Ratios	69.32%	49.64%	58.65%
2010/11			
Total Credit	9,460,450.70	4,409,013.04	13,869,463.74
Total Deposit	11,445,286.03	9,385,949.55	20,831,235.58
Ratios	82.66%	46.98%	66.58%

Table 4.3 shows that both banks are in fluctuating trend. The range of Total Credit to Total Deposit of NSBL is higher than EBL in fiscal year 2010/11 with a ratio of 82.66% and the lower is 44.48% in the year 2006/07.

NSBL is highest in the year 2010/11 which is 82.66%. Likewise, EBL has highest 68.44% in year 2006/07 and lowest in the year 2010/11. Therefore NSBL is in increasing trend. So Table 4.3 analysis reveals that NSBL has highest ratio comparing

to EBL. Therefore NSBL bank seems to be successful to maintain highest credit ratio. Similarly, deposit utilization ratio of EBL is slightly weak to mobilize its total deposit as loan and advances. Therefore, hence EBL need to mobilize their deposit in most secure loans.
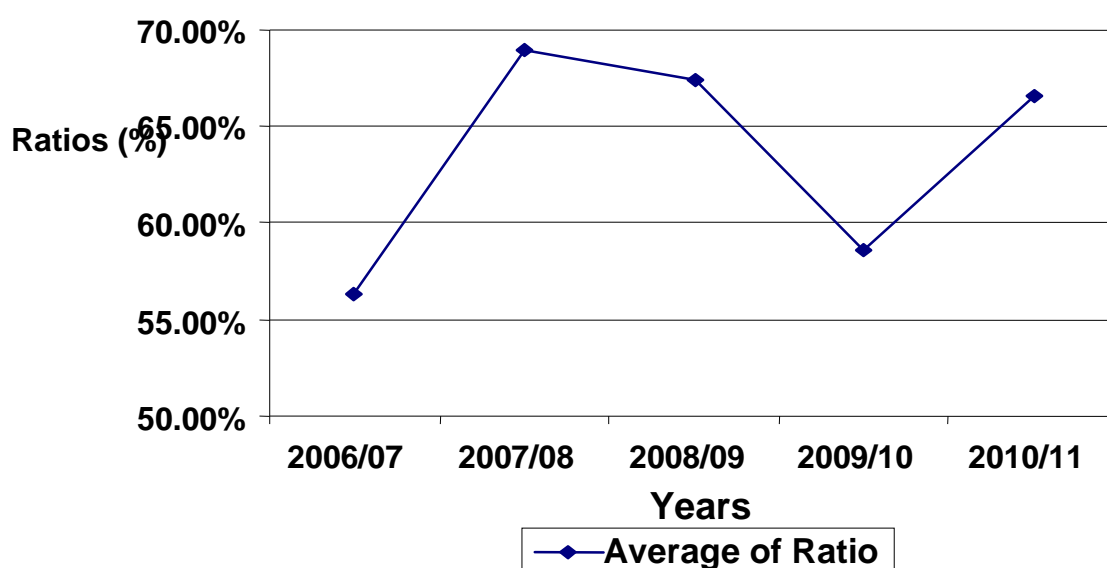
Graphical Presentation of Total Deposit Ratio of both Banks:

Average of Total Credit to Total Deposit Ratio

For the period ending 2006/07 to 2010/11

Figure 4.3

Loan and Advances to Total Deposit

Graphical presentation of average of loan and advances to total deposit ratio of these two banks shows that ratios are increasing trend. During the year 2006/07, average loan and advances to total deposit ratio is 56.31% after that it increases to 68.94% in 060/061. After that it decreases from 061/062 to 062/063 and then increases in 2010/11. Therefore, this trend signifies that loan and advances to total deposit ratio is increasing trend.

Investment to Total Deposit Ratios:

Investment function is gaining a widespread importance in the banking sector. Treasury of the bank is involved in investing the surplus fund in the income generating investment. Banks cannot utilize whole of it's' fund, raised through deposits and borrowing into loan and advances. In order to fill this gap between borrowings and lending, bank rather goes for investment such as government securities, development bonds, shares and debenture and inter-bank lending.

These investments earn a lower rate of return in comparison of loans and advances, but under most of the circumstances they generate higher return than their cost of funds. Investment to total deposit ratio is calculated by dividing Total Investment by Total Deposits.

Investment to Total Deposit ratio is calculated by dividing Total Investment by Total Deposit:

Investment to Total Deposit Ratio = $\dfrac{Total\ Investment}{Total\ Deposit}$

Assumption:

    a. For the calculation of total investment both investment and money at call is taken into consideration.

    b. 50 percent of bank balance is considering as money at call.

Computation of Total Investment to Total Deposit Ratio of two banks for the period ending 2006/07 to 2010/11

Table 4.4

Total Investment to Total Deposit

(Amount in '000')

Years\Banks	NSBL	EBL	Average of Ratios
2006/07			
Total Investment	2,897,387.45	2,563,784.54	5,461,171.99
Total Deposit	10,864,331.03	10,591,081.09	21,455,412.12
Ratios	26.67%	24.21%	25.45%
2007/08			
Total Investment	2,259,122.94	3,241,326.83	5500449.77
Total Deposit	7,198,327.43	12,807,376.33	20005703.75
Ratios	31.39%	25.31%	27.49%
2008/09			
Total Investment	3,020,790.19	2,961,78.95	5,982,969.14
Total Deposit	8,654,774.21	1,212,5578.26	20,780,352.46
Ratios	34.90%	24.43%	28.79%
2009/10			
Total Investment	4,410,960.09	3,361,976.51	7,772,937.36
Total Deposit	11,002,040.63	13,015,136.11	24,017,176.74
Ratios	40.09%	25.83%	32.36%
2010/11			
Total Investment	3,427,032.71	1,470,743.48	4,897,776.19
Total Deposit	11,445,286.03	9,385,949.55	20,831,235.58
Ratios	29.94%	15.67%	23.51%

Table 4.4 shows the ratios of total investment to total deposits of all banks are in fluctuating trend. NSBL has recorded the highest ratio i.e. 40.09% in the fiscal year 2009/10 and EBL has recorded the lowest ratio i.e. 15.67% in the year 2010/11. NSBL has higher ratio of total investment to total deposit than EBL in all the fiscal year. Therefore, according to Table 4.4 analysis it may conclude that NSBL has performed very well ratio than EBL. It means NSBL capacity to mobilize its deposits on total investment is preferable and achieved better position. Similarly, EBL has average ratio therefore EBL is also performing well.

Graphical presentation of Total Investment to Total Deposit Ratio of both
Banks:
Average of Total Investment to Total Deposit Ratio
For the period ending 2006/07 to 2010/11
Figure 4.4
Total Investments to Total Deposit
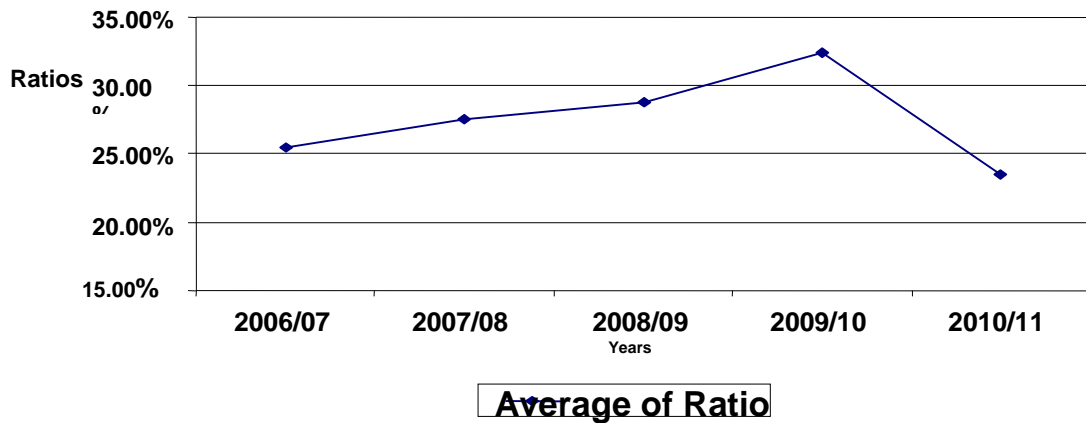
Graphical presentation of these two banks show that average of total investment to total deposit are in increasing trend at first and then decreasing. During the year 2006/07 to 2009/10 it raise from 25.45% to 32.36%. And lastly in 2010/11 it decreases to 23.51%.

Performing Assets to Total Assets:

Performing assets for the purpose include those assets, which have been invested in loans and advances, investment and money at call. Higher ratios indicate the higher utilization of resources in relation to the total assets and yield a higher return fir the banks. Whereas non-performing assets are very harmful for the banks, so they should try to reduce their proportion in the assets structure.

Performance Assets to Total Assets Ratio is calculated by dividing performing Assets by Total Assets:

Performing Assets to Total Assets Ratio = $\dfrac{Performing\ Assets}{Total\ Assets}$

Computation of Performing Assets to Total Assets Ratio of both banks for the period ending 2006/07 to 2010/11

Table 4.5

Performing Assets to Total Assets Ratio

Years\Banks	NSBL	EBL	Average of Ratios
2006/07			
Performing Assets	6,396,734.48	9,516,903.23	15,913,637.71
Total Assets	7,683,246.51	11,918,508.53	19,601,755.04
Ratios	83.25%	79.85%	81.18%
2007/08			
Performing Assets	7,051,182.87	11,347,910.30	18,399,093.17
Total Assets	8,440,405.81	14,257,973.49	22,698,379.30
Ratios	83.54%	79.59%	81.06%
2008/09			
Performing Assets	8,944,671.28	10,199,410.44	19,144,081.72
Total Assets	10,345,373.37	12,480,853.88	22,826,227.25
Ratios	86.46%	81.72%	83.87%
2009/10			
Performing Assets	11,600,711.62	9,152,108.67	20,752,820.29
Total Assets	13,035,839.12	11,709,281.27	24,745,120.39
Ratios	88.99%	78.16%	83.87%
2010/11			
Performing Assets	12,469,903.62	5,493,573.23	17,963,476.85
Total Assets	13,901,200.56	7,254,548.24	21,155,748.80
Ratios	89.70%	75.73%	84.91%

Table 4.5 shows the ratios of performing assets to total assets of both banks are in fluctuating trend. NSBL has seemed in increasing trend but EBL has in fluctuating trend. The highest ratio of NSBL has recorded the highest as 89.70% in the year 2010/11 and EBL has recorded the lowest ratio i.e. 75.73% in the same year.

According to Table 4.5 analysis it may conclude that the ratio of NSBL is higher than EBL. Similarly, EBL has lower ratio than NSBL but it has also standard ratio therefore EBL are also performing quite well. Hence, NSBL bank is in better position
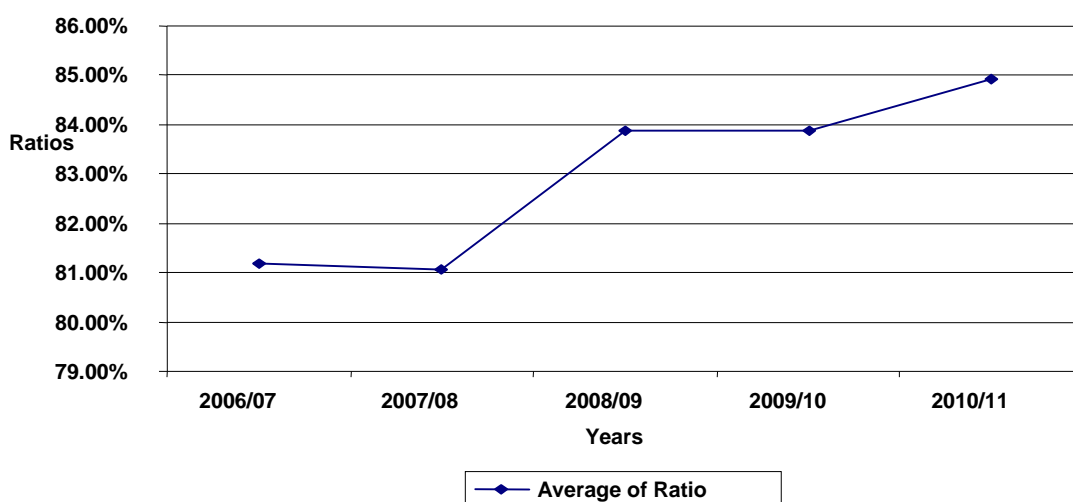
because of higher utilization of resources in relation to the total assets which yield higher return for the banks.

Graphical presentation of Performing Assets to Total Assets Ratio of both Banks:

Average of Performing Assets to Total Assets Ratio

For the period ending 2006/07 to 2010/11

Figure 4.5

Performing Assets to Total Assets

Graphical presentation of these banks shows that average of performing assets to total assets are in fluctuating trend. During the year 2006/07 it is 81.18% and in year 2007/08 it slightly falls to 81.06% after that in the year 2008/09 it raises to 83.87% also same in the year 2009/10. And in the year 2009/10 it raises to 84.91%. Thus the average ratios of performing assets are in increasing trend.

4.1.3 Profitability Ratios:

Profit maximization and wealth maximization are the primary objectives of any organization. Therefore, all organization tries to maximize its profit. It is very important for their survival in this competitive market and for their future growth. Profit indicates the present condition of the organization and their strength position in the market. In this section various profitability ratios, which reflect the operating efficiency of the bank, have been analyzed.

Return on Total Assets:

The return on total assets ratio is calculated by dividing profit before tax by the total assets. This ratio measures the profitability of all resources invested in the bank's assets. Higher the ratio, higher the efficiency of the banks in utilizing its overall

resources and lower the volume of non-performing assets Non-performing assets reduce the profit because it returns nothing.

Return on total assets can be calculated by using following formula:

Return on Total Assets = $\dfrac{Net\ Profit}{Total\ Assets}$

Computation of Return on Total Assets Ratio of both banks for the period ending 2006/07 to 2010/11

Table 4.6

Return on Total Assets Ratio

(Amount in '000')

Years\Banks	NSBL	EBL	Average of Ratios
2006/07			
Net Profit	54,632.48	71,495.02	126,128.5
Total Assets	7,683,246.51	11,918,508.53	19,601,755.04
Ratios	0.71%	0.60%	0.65%
2007/08			
Net Profit	60,851.67	2,643.25	63,494.92
Total Assets	8,440,405.81	14,257,973.49	22,698,379.30
Ratios	0.72%	0.019%	0.28%
2008/09			
Net Profit	57,386.63	32,386.51	89,773.14
Total Assets	1,034,5373.37	12,480,853.88	22,826,227.25
Ratios	0.55%	0.26%	0.40%
2009/10			
Net Profit	117,001.97	9,057.88	126,059.80
Total Assets	13,035,839.12	11,709,281.27	24,745,120.39
Ratios	0.90%	0.08%	0.51%
2010/11			
Net Profit	254,908.84	(1,061,579.50)	(806,670.66)
Total Assets	13,901,200.56	7,254,548.24	21,155,748.80
Ratios	1.83%	-14.63%	-3.18%

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Table 4.6 shows the ratios of return on total assets of both banks are in fluctuating trend. NSBL has recorded highest ratio i.e. 1.83% in the fiscal year 2010/11 and EBL has recorded the lowest ratio i.e. -14.63% (negative) in the same year 2010/11 due to suffering from loss. During the fiscal year from 2006/07 to 2010/11 only NSBL is above the average and EBL is below the average ratio.

According to Table 4.6 analysis it indicates that both banks follow the fluctuating trend, this is because of its conservative lending procedure. This proves that the increase in profit before tax alone is not sufficient for the consistence return on assets ratio, thus banks must increase their performing assets. Therefore, both the banks need to change its portfolio in order to increase return on assets ratio and they must increase their performing assets to generate income and this helps to earn proportionately in order to achieve a healthy return on assets ratio.

Graphical presentation of Return on Total Assets Ratio of both Banks:

Average of Return on Total Assets Ratio

For the period ending 2006/07 to 2010/11

Figure 4.6

Returns on Total Assets
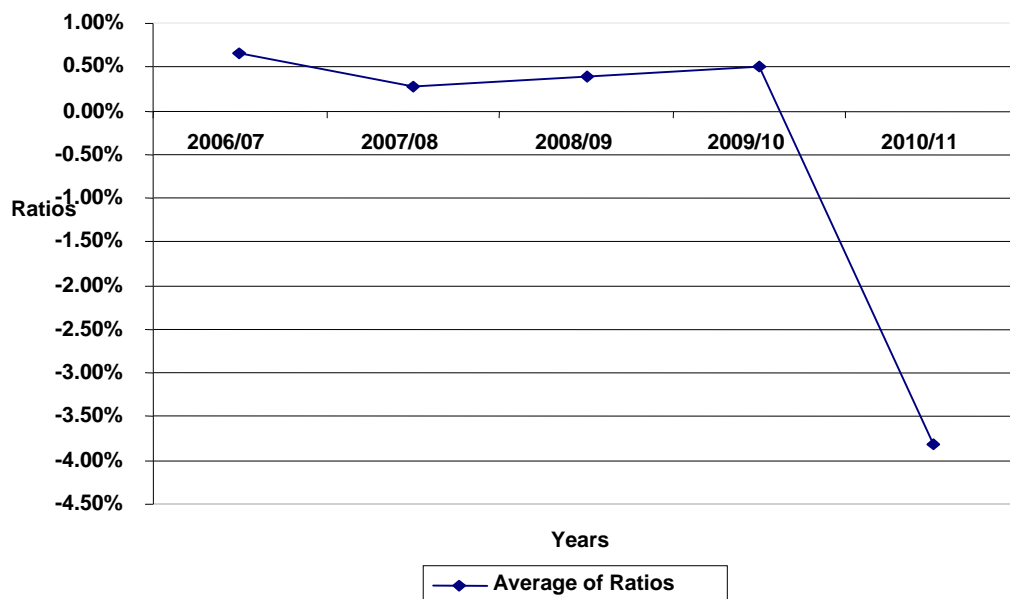
Graphical present of these two banks show that average of return on total assets are in highly fluctuating trend or highly decreasing trend because during the year 2006/07 the ratio is 0.65% and in the year 2007/08 it deeply falls to 0.28%. After that in the year 2008/09 the ratio again raise up to 0.40% and 0.51% in the year 2009/10. But in the year 2006/07/064 the ratio highly falls to negative point i.e. -3.81%. It is because

due to suffering from the loss of EBL. So the trend of these ratios indicates that the ratio will be very low in coming years.

Return on Total Deposit:

One of the major sources of fund to the banks is deposit and this fund has to be utilized properly in order to maximize their return on deposits. Higher return on deposit ratio signifies better utilization of deposits. The Return on Total Deposit Ratio is calculated by dividing profit before tax by the Total Deposits.

Return on Total Deposit can be calculated by using following formula:

$$\text{Return on Total Deposit} = \frac{Net\ \Pr ofit}{Total\ deposit}$$

Computation of Return on Total Deposit Ratio of both banks for the period ending 2006/07 to 2010/11

Table 4.7

Return on Total Deposit Ratio

(Amount in '000')

| Years\Banks	NSBL	EBL	Average of Ratios
2006/07			
Net Profit	54,632.48	71,495.02	126,127.5
Total Deposit	10,864,331.03	10,591,081.09	21,455,412.12
Ratios	0.52%	0.68%	0.60%
2007/08			
Net Profit	60,851.67	2,643.25	63,494.92
Total Deposit	7,198,327.43	12,807,376.33	20,005,703.76
Ratios	0.85%	0.02%	0.32%
2008/09			
Net Profit	57,386.63	32,386.51	89,773.14
Total Deposit	8,654,774.21	12,125,578.26	20,780,352.47
Ratios	0.66%	0.27%	0.43%
2009/10			
Net Profit	117,001.97	9,057.88	126,059.85
Total Deposit	11,002,040.63	13,015,136.11	24,017,176.74
Ratios	1.06%	0.07%	0.53%
2010/11			
Net Profit	254,908.84	(1,061,579.50)	(806,670.66)
Total Deposit	11,445,286.03	9,385,949.55	20,831,235.58
Ratios	2.23%	-11.31%	-3.87%

Table 4.7 shows the ratios of return on total deposit ratio of banks are in fluctuating trend. NSBL has recorded the highest ratio i.e. 2.23% in the fiscal year 2010/11 and EBL has recorded the lowest ratio i.e. -11.31% in the fiscal year due to suffering from loss. During all these five fiscal year, only NSBL is above the average and EBL is below than average ratio.

According to Table 4.7 analysis it indicates that NSBL have earned more profit than EBL by appropriate and perfect utilization of total deposits. Among these two banks NSBL has able to maintain highest ratio i.e. 2.23% by mobilizing the total deposit properly in the productive sectors. But in the case of EBL it has very less ratios comparing to NSBL. Therefore these banks need to improve their lending management and utilization of deposits properly in order to increase their ratio. The bank would inspire depositors and mobilize it to credit sector properly.

Graphical presentation of Return on Total Deposit Ratio of both Banks:

Average of Return to Total Deposit Ratio

For the period ending 2006/07 to 2010/11

Figure 4.7

Returns on Total Deposit
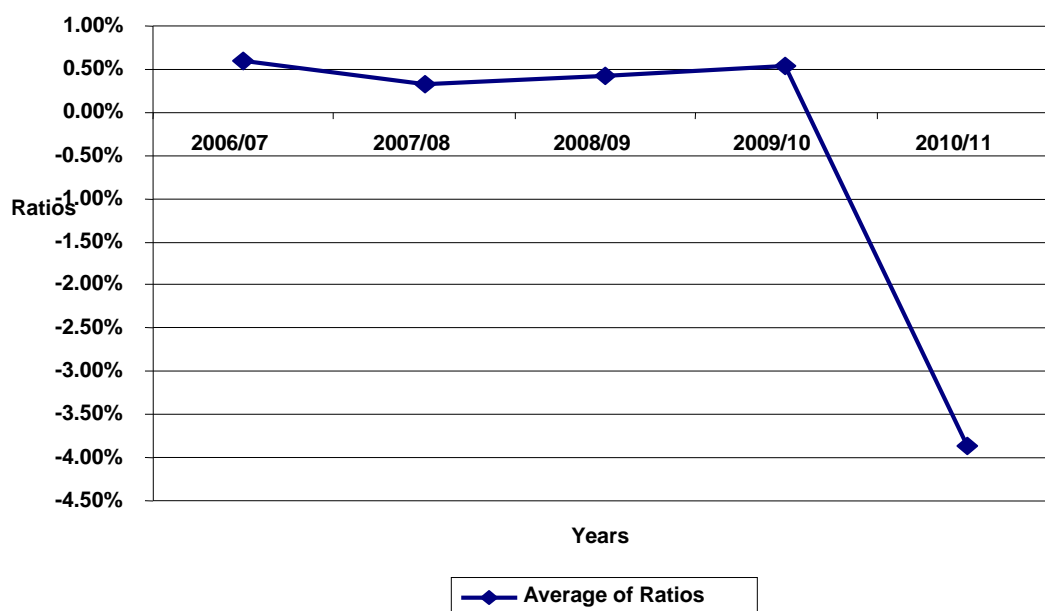
Graphical presentation of these two banks show average of return on total deposit are in decreasing trend because during the year 2006/07 it is 0.60% and in the year 2007/08 it falls to 0.32% and in the year 2009/10 0.53%. At last year 2010/11 it falls deeply to down to negative point i.e. -3.87% due to EBL is suffering from loss.

Return on Risky Assets i.e. Loan and Advances:

Return on Risky Assets ratio measures the percentage of profit before tax earned in relation to the volume of loans and advances. The ratio shows the capacity of the commercial banks to mobilize risky assets in the income generating purpose. Higher the ratio better is the ratio better is the situation because it shows that bank is able to disburse good loans in a higher proportion.

The return on risk assets ratio is calculated by dividing profit before tax by risk assets i.e. Total Loans and Advances:

Return on Risk Assets = $\dfrac{Net\ Profit}{Total\ Risk\ Assets}$

Computation of Return on Risky Assets Ratio of both banks for the period

ending 2006/07 to 2010/11

**Table 4.8**

Return on Risky Assets Ratio

(Amount in '000')

Years\Banks	NSBL	EBL	Average of Ratios
2006/07			
Net Profit	54,632.48	71,495.02	126,127.5
Risky Assets	4,937,813.07	6,247,980.13	11,185,793.20
Ratios	1.10%	1.14%	1.13%
2007/08			
Net Profit	60,851.67	2,643.25	63,494.92
Risky Assets	5,143,662.08	8,648,743.60	1,792,405.68
Ratios	1.18%	0.031%	0.46%
2008/09			
Net Profit	57,386.63	32,386.51	89,773.14
Risky Assets	6,213,878.78	7,787,690.37	14,001,569.15
Ratios	0.92%	0.42%	0.64%
2009/10			
Net Profit	117,001.97	9,057.88	126,059.85
Risky Assets	7,626,736.14	6,460,246.40	14,086,982.54
Ratios	1.53%	0.14%	0.90%
2010/11			
Net Profit	254,908.84	(1,061,579.50)	(806,670.66)
Risky Assets	9,460,450.70	4,409,013.04	13,869,463.74
Ratios	2.70%	-24.08%	-5.82%

Table 4.8 shows the ratios of return on risk assets of these two banks are in fluctuating trend. NSBL has recorded the highest ratio i.e. 2.70% in the fiscal year 2010/11 and EBL has recorded the lowest ratio i.e. -24.08% in the same year due to suffering from loss. During the whole five fiscal years, NSBL are above than average ratios and EBL are below the average.

According to Table 4.8 analysis it signifies that only NSBL is succeed to maintain high ratio in all period. It means an only NSBL bank is successful to earn more profit by mobilizing their funds in the productive sector. Thus EBL needs to improve their portfolio management and credit policy in order to increase their profit.

Graphical presentation of Return on Risky Assets Ratio of both Banks:

Average of Return to Risky Assets Ratio

For the period ending 2006/07 to 2010/11

Figure 4.8

Returns on Risk Assets
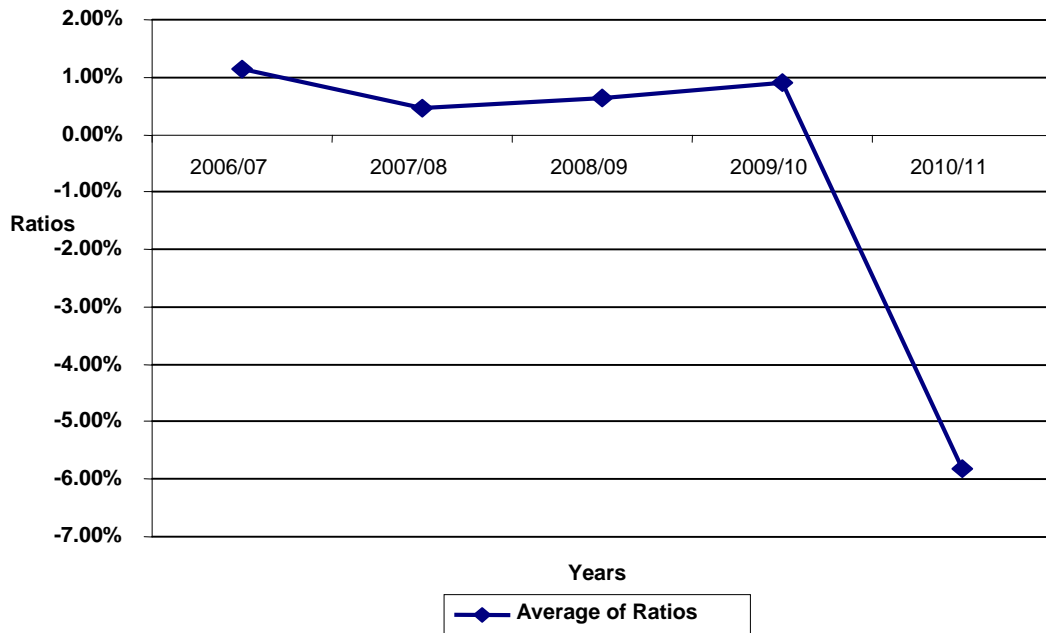
Graphical presentation of these two banks show average of return on risk assets are in highly fluctuating trend because it is 1.10% in the year 2006/07 but in the year 2010/11 it falls to negative point i.e. -5.82% due to suffering from loss of EBL.

Interest Earning to Total Assets:

Banks main sources of income are interest earned from loans, advances and investment. Hence, higher the proportion of risk assets and investment in total assets, higher the interest earned to total assets ratio. Interest earned to total assets ratio measures the percentage of interest earned in relation to total assets of the banks and shows the efficiency of banks in earning assets.

The Interest Earned to Total Assets Ratio is calculated by dividing Total Interest Earning by Total Assets:

Interest Earned to Total Assets Ratio = $\dfrac{Total\ Interest\ Earnin}{Total\ Assets}$

Computation of Interest Earned to Total Assets Ratio of both banks for the period ending 2006/07 to 2010/11

Table 4.9

Interest Earned to Total Assets Ratio

(Amount in '000')

Years\Banks	NSBL	EBL	Average of Ratios
2006/07			
Interest Earned	426,478.65	1,013,711.79	1,440,190.44
Total Assets	7,683,246.51	11,918,508.53	19,601,755.04
Ratios	5.55%	8.51%	7.35%
2007/08			
Interest Earned	493,598.31	1,095,501.01	1,589,099.32
Total Assets	8,440,405.81	14,257,973.49	22,698,379.30
Ratios	5.85%	7.68%	7.00%
2008/09			
Interest Earned	578,372.07	876,508.41	1,454,880.48
Total Assets	10,345,373.37	12,480,853.88	22,826,227.25
Ratios	5.59%	7.02%	6.37%
2009/10			
Interest Earned	708,718.61	758,131.69	1,466,850.30
Total Assets	13,035,839.12	11,709,281.27	24,745,120.39
Ratios	5.44%	6.47%	5.93%
2010/11			
Interest Earned	831,116.78	982,196.61	1,813,313.39
Total Assets	13,901,200.56	7,254,548.24	21,155,748.80
Ratios	5.98%	13.54%	8.57%

Table 4.9 shows that the ratios of interest earned on total assets ratio of these two banks are in fluctuating trend. EBL has recorded the highest ratio i.e. 13.54% in the fiscal year 2010/11 and NSBL has recorded the lowest ratio i.e. 5.44% in the fiscal year 2010/11. During the five fiscal years only EBL are above the average ratios and NSBL are below the average.

In the Table 4.9 analysis it indicates that only EBL is in increasing trend. Although, NSBL is also in increasing trend but it is in slightly manner. Therefore, we conclude that EBL has better performance in earning interest as well as utilizing the resources in interest generating sectors comparing with NSBL bank.

Graphical presentation of Interest Earned to Total Assets Ratio of both Banks:
Average of Interest Earned to Total Assets Ratio
For the period ending 2006/07 to 2010/11
Figure 4.9 Interest Earned to Total Assets
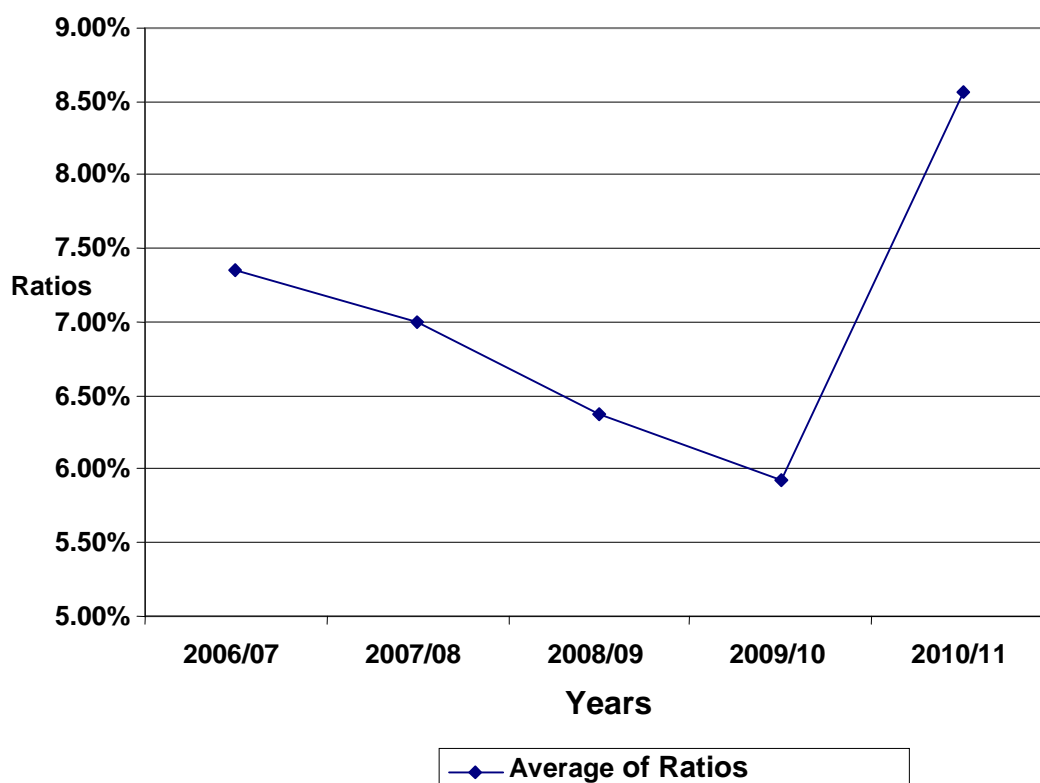
Graphical presented of these two banks show that average of return on total assets are in fluctuating trend because from the fiscal year 2006/07 to 2009/10 the average ratios decreasing. But after the fiscal year 2009/10 it is in highly increasing position due to political stability.

4.1.4   Capital Adequacy Ratios:

Capital Adequacy ratio shows whether banks are maintaining sufficient amount of capital fund or shareholder's fund in comparison to the total amount of their deposits. According to capital adequacy ratio principal, safety and stability of the fragile financial system ultimately rest upon the confidence of the depositors and creditors.

NRB has directed all banks to keep Capital Adequacy ratio of at least 10% of total weighted risk assets.

Capital Adequacy Ratio is calculated by dividing Total Capital Fund (Net Worth) by Total Deposits:

Capital Adequacy Ratio $= \dfrac{TotalCapitalFund}{TotalDeposit}$

(I) **Shareholder's Fund to Total Deposit Ratio:**

The ratio is calculated by below formulae:

Shareholder's Fund to Total Deposit Ratio $= \dfrac{Shareholder's\ Fund}{Total\ Deposit}$

Shareholder's Fund to Total Deposit Ratio of both banks for the period ending 2006/07 to 2010/11.

Table 4.10

Shareholder's Fund to Total Deposit Ratio

(Amount in '000')

Years\Banks	NSBL	EBL	Average of Ratios
2006/07			
Shareholder's Fund	630,131.20	574,159.07	1,204,290.27
Total Deposit	1,086,433.03	10,591,081.09	21,455,412.12
Ratios	5.8%	5.42%	5.61%
2007/08			
Shareholder's Fund	453,494.63	1,068,135.19	1,521,629.82
Total Deposit	7,198,327.43	12,807,376.33	20,005,703.76
Ratios	6.30%	8.34%	7.32%
2008/09			
Shareholder's Fund	605,834.20	752,998.41	1,358,832.61
Total Deposit	8,654,774.21	12,125,578.26	20,780,352.47
Ratios	7%	6.21%	6.54%
2009/10			
Shareholder's Fund	789960.24	1177869.82	1967830.06
Total Deposit	11002040.63	13015136.11	24017176.74
Ratios	7.18%	9.05%	8.16%
2010/11			
Shareholder's Fund	847,989.98	799,682.9	1,647,672.88
Total Deposit	11,445,286.03	9,385,949.55	20,831,235.58
Ratios	7.41%	8.52%	7.91%

Table 4.10 shows the ratios of shareholder's fund to total deposit ratio of these two banks are in fluctuating trend. EBL has recorded the highest ratio i.e. 9.05% in the fiscal year 2009/10 and has the lowest ratio i.e. 5.42% in the fiscal year 2006/07.

During the fiscal year 2007/08 to 2009/10 only EBL is above the

average ratios and NSBL is below from the average.

According to Table 4.10 analysis it indicates that NSBL is increasing from the year 2006/07 to 2010/11. But EBL is in fluctuating trend during all these fiscal year.

Graphical Presentation of Shareholder's Fund to Total Deposit Ratio of two Banks:

Average of Shareholder's Fund to Total Deposit Ratio

For the period ending 2006/07 to 2010/11

Figure 4.10

Shareholder's Fund to Total Deposit
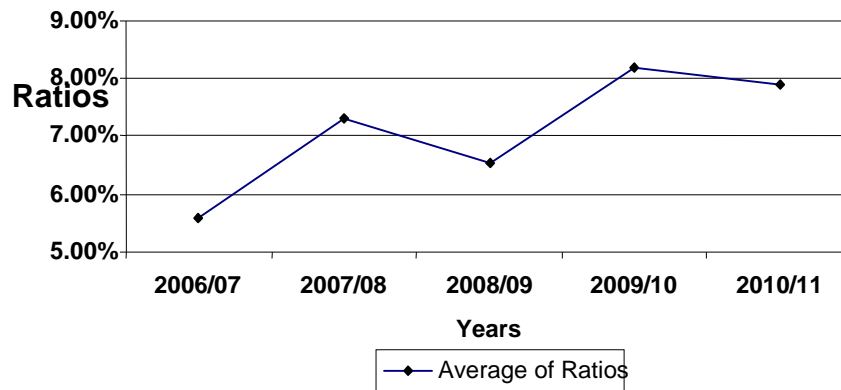
Graphical presentation of these two banks shows that the average of shareholder's fund to total deposit is in fluctuating trend. Because th4 average ratio in the fiscal year 2006/07 is very low. But there after the average ratio is in increasing trend to the fiscal year 2010/11.

Shareholder's Found to Total Assets Ratio:

The ratio is calculated by below formulae:

Shareholder's Fund to Total Assets Ratio $= \dfrac{Shareholder's Fund}{Total\ Assets}$

**Shareholder's Fund to Total Assets Ratio of both banks for the period ending
2006/07 to 2010/11.**

Table 4.11

Shareholder's Fund to Total Assets Ratio

(Amount in '000')

Years\Banks	NSBL	EBL	Average of Ratios
2006/07 Shareholder's Fund Total Assets Ratios	630,131.20 7,683,246.51 8.20%	574,159.07 11,918,508.53 4.82%	1,204,290.27 19,601755.04 6.14%
2007/08 Shareholder's Fund Total Assets Ratios	453,494.63 8,440,405.81 5.37%	1,068,135.19 14,257,973.49 7.49%	1,521,629.82 22,698,379.3 6.70%
2008/09 Shareholder's Fund Total Assets Ratios	605,834.20 10,345,373.3 5.86%	752,998.41 12,480,853.88 6.03%	1,358,832.61 22,826,227.2 5.95%
2009/10 Shareholder's Fund Total Assets Ratios	789,960.24 13,035,839.1 6.06%	1,177,869.82 11,709,281.27 10.06%	1967830.06 24,745,120.3 8.06%
2010/11 Shareholder's Fund Total Assets Ratios	847,989.98 13,901,200.5 6.10%	799,682.9 7,254,548.24 11.02%	1,647,672.88 1,647,672.88 8.56%

Table 4.11 shows that the ratios of shareholder's fund to total assets of these two banks are in fluctuating trend. EBL has recorded the highest and lowest ratio i.e.

11.02% in the fiscal year 2010/11 and 4.82% in the fiscal year 2006/07. During the fiscal year 2007/08 to 2010/11 only EBL is above the average comparing with NSBL.

According to Table 4.11 analysis it may conclude that NSBL needs to add more shareholders' funds for maintaining sufficient amount of shareholder's fund. By comparing to these banks under shareholder to assets ratio only EBL is better than NSBL. So it is concluded that NSBL needs more shareholder's funds.

Graphical Presentation of Shareholder's Fund to Total Assets Ratio of two Banks:

Average of Shareholder's Fund to Total Assets Ratio

For the period ending 2006/07 to 2010/11

Figure 4.11

Shareholder's Fund to Total Assets Ratio
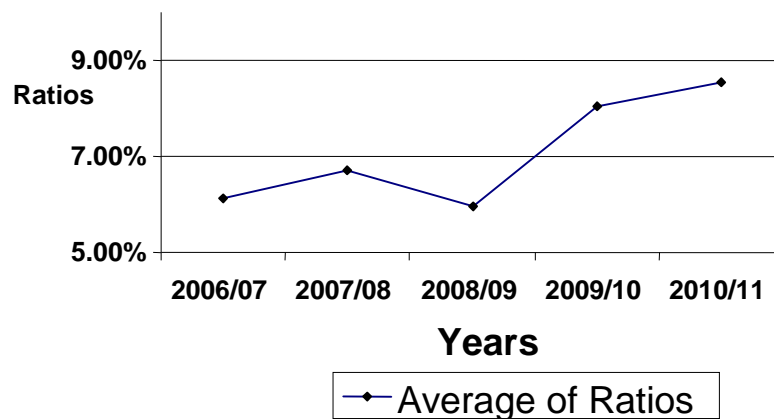
Graphical presentation of these two banks show average of shareholder's funds to total assets ratio are in increasing trend because from the year 2009/10 to 2010/11 it is increasing from 8.06% to 8.56%. But from the year 2007/08 to 2008/09 it is decreasing from 6.70% to 5.95%. Therefore, it proves that shareholder's fund to total assets ratios are in increasing trend.

4.2 Statistical Analysis

This part of analysis deals with the statistical analysis of data. Under the statistical analysis coefficient of correlation, probable error and trend analysis have been done.

Coefficient of Correlation between total deposit and total investment

The main function of a commercial bank in the collection of deposits and the efficient utilization of the deposits collected. Deposit collection shows a bank's efficiency in performance and reliability and efficient utilization of the same indicates its success and profitability as well as service orientation. Banks have to pay high interest on deposits and also pay dividends to their shareholders. So earning more and more interest through deposit utilization is very crucial task of banks.

In correlation analysis of total deposits and total investments, total deposits is independent variable (x) and total investment is dependent variable (y). The main purpose of computing correlation of coefficient is to justify whether there is any relation between these two variables.

To find out the correlation various calculations are made for the reason (detailed in Appendix-I). The following table shows the coefficient of correlation between total deposit and total investment i.e. PEr, 6PEr and coefficient of determination (r^2) of commercial banks during the study period.

Coefficient of Correlation Analysis between Total Deposit and Total Investment

Table 4.12

Total Deposit and Total Investment

Bank/Evaluation	R	r^2	PEr	6PEr
NSBL	0.716	0.5127	0.147	0.6315
EBL	0.9679	0.9368	0.0191	0.1109

(Detail in Appendix-I)

Table 4.12 clearly shows that coefficient of correlation between Total Deposit and Total Investment which is denoted by the symbol 'r' has a value range from 0.716 to 0.9679. all the value of banks are greater than zero thus these banks have positive relation between its independent variable (Total Deposit) and dependent variable (Total Investment) that means if the value of Total Deposit will increase of decrease the value of Total Investment will also increase or decrease. In addition, the above value 'r' shows NSBL has utilized less amount of deposit comparing to EBL. Therefore, it is concluded that EBL has utilized more amount of deposits. However by the application of coefficient of determination, the value of 'r' range from 0.5127 to 0.9368 which means 51.27% and 93.68% are the total change in dependent variable (Total Investment) is due to effect of independent variable (Total Deposit).

Finally it can be concluded that the value of 'r' is significant i.e. there is significant relationship between Total Deposit and Total Investment. Therefore, NSBL and EBL needs to improve its strategy for the better utilization if its deposit on investment for maximizing the profit.

Coefficient of Correlation Analysis between Total Deposit and Total Performing Assets
Table 4.13
Total Deposit and Total Performing Assets

Bank/Evaluation	R	r^2	PEr	6PEr
NSBL	0.5669	0.3214	0.2047	0.6963
EBL	0.7981	0.637	0.1095	0.5244

(Detail in Appendix-II)

Table 4.13 shows that coefficient of correlation between Total Performing Assets and Total Deposits which is denoted by the symbol 'r' has value range from 0.5669 to 0.7981. all the value of banks are greater than zero thus these banks have positive relation between its independent variable (Total Deposit) and dependent variable (Performing Assets) that means if the value of Total Deposit will increase or decrease the value of Performing Assets will also increase or decrease. Moreover, the above value of 'r' shows NSBL has utilized very less amount of deposit comparing to EBL.
 By the application of coefficient of determination, the value of 'r^2' range from 0.3214 to 0.637 which means 32.14% and 63.70% are the total change in dependent variable (Performing Assets) is due to effect of independent variable (Total Deposit). Furthermore, by considering probable error, the value of 'r' of these banks which are 0.5669 and 0.7981 are greater than six times of PEr which are 0.1160 and 0.0874. It shows the value of 'r' is significant it means there are significant relationship between Total Deposit and Total Performing Assets of banks.

Finally, it can be concluded that both the banks have performed positive correlation with a closer value to 1 and the value of 'r' is also more than six times of probable error which means that both banks have efficiently utilized their deposits on performing assets.

Trend Analysis

Under this topic, an effort has been made to calculate, analyze and interpretation of the trend values of Net Profit, Total Deposit and Total Credit of certain joint venture banks under study i.e. NSBL and EBL for 5 years from F/Y 2006/07 to 2010/11.

The trend values of 10 years from F/Y 2006/07 to 20014/15 of these banks are tabulated below:

Trend values of Net Profit (2006/07 to 20015/16)

Table 4.14

Trend value of Net Profit

(In Million)

Fiscal Year	NSBL	EBL
2006/07	17.62	93.29
2007/08	63.29	96.51
2008/09	108.96	286.31
2009/10	154.63	476.40
2010/11	200.30	665.91
2011/12	245.97	855.71
2012/13	291.64	1045.51
2013/14	337.31	1235.31
2014/15	382.98	1425.11
2015/16	428.65	1614.91

(Detail in Appendix-III)

Table 4.13 clearly shows in 2015/16 expected net profit of NSBL and EBL are 428.65 and 1614.91 respectively. Among both banks EBL has highest net profit. The expected net profits of both banks are in increasing trend. Therefore, the trend value recorded in 20014/15 will be approximately 1614.91 million of EBL which is the highest under the study period.

Trend values of Total Deposit (2006/07 to 2015/16)

Table 4.15

Trend value of Total Deposit

(In Million)

Fiscal Year	NSBL	EBL
2006/07	8839.83	12025.53
2007/08	9336.39	11805.28
2008/09	9832.95	11585.03
2009/10	10329.51	11364.78
2010/11	10826.07	11144.53
2011/12	11322.63	10924.28
2012/13	11819.19	1070.03
2013/14	12315.75	10483.78
2014/15	12812.31	102 63.53
2015/16	13308.87	10043.28

(Detail in Appendix-IV)

Table 4.15 clearly shows expected total deposit in 2015/16 of NSBL and EBL are 13308.87 and 10043.28 respectively. The expected total deposit of NSBL bank is in increasing trend but EBL is decreasing. In accordance with above trend analysis and growth rate it can be included that NSBL seems to be in good position while EBL are not satisfactory position.

Trend values of Total Credit (2006/07 to 2015/16)

Table 4.16

Trend value of Total Credit

(In Million)

Fiscal Year	NSBL	EBL
2006/07	4307.82	8484.01
2007/08	5481.66	7697.37
2008/09	6655.50	6910.73
2009/10	7829.34	6124.09
2010/11	9003.18	5337.45
2011/12	10177.02	4550.81
2012/13	11350.86	3764.17
2013/14	12524.70	2977.53
2014/15	13698.54	2190.89
2015/16	14872.38	1404.25

(Detail in Appendix-V)

Table 4.16 clearly shows expected total deposit in 2015/16 of NSBL and EBL are 14872.38 and 1404.25. The expected Total Credit of NSBL banks are in increasing trend but EBL is decreasing. In accordance with above trend analysis and growth rate it can be concluded that NSBL seems to be in good position while EBL is not in satisfactory position.

4.3   Major Findings

❖ The idle standard of the *Current Ratio* is 2:1 but none of the banks under study could perform that standard. The banks contain more current assets than current liabilities. Thus banks are willingness to serve its consumers deposits. Moreover, from the liquidity point of view, NSBL seems better which the result of higher portion of fixed deposit is possibly. From 2006/07 to 2010/11 NSBL is above the average.

❖ EBL has better performance in the case of *Cash and Bank Balance to total Deposit* due to readiness to serve the deposits to its consumers than NSBL. During 2007/08 to 2010/11 EBL is above the average. In 2006/07 NSBL is above the average. Finally, it can be concluded that the position of EBL is better than NSBL.

❖ NSBL seems to be successful to maintain highest *Total Credit to   Total Deposit Ratio* in the fiscal year 2010/11 i.e. 82.66%.

❖ In case of *Total Investment to Total Deposit Ratio* NSBL has very good ratio comparing to EBL. It means NSBL has capacity to mobilize its deposits on total investment is preferable and performed better. During 2006/07 to 2010/11 only NSBL is above the average.

❖ *Performing Assets to Total Assets Ratio* of Both banks are very good therefore the banks are in better position because of higher utilization of resources in relation to the total assets which yield higher return for the banks. From 2006/07 to 2010/11 only NSBL is above the average.

❖ Comparing both the banks NSBL is able to maintain high in *Return on Total Deposit* i.e. 2.23% in the fiscal year 2010/11. It means NSBL is capable to mobilize the total deposit properly in the productive sectors. EBL perform better at first but later on it decreases to -11.31% during the year 2010/11 because of its bad lending management and unsuccessful in utilizing the funds in generating sectors.

❖ The *Return on Risky Assets* Ratio of NSBL is very good comparing to EBL. EBL is decreasing trend due to suffering loss.

❖ EBL is able to maintain highest ratio in *Interest Earned to Total Assets Ratio* i.e. 13.54% during the year 2010/11. This shows that EBL is efficient in earning interest or utilizing the resources in interest generating sectors. During 2006/07 to 2010/11 EBL is above the average.

❖ The expected *Total Deposit* of NSBL is in increasing trend but EBL is in decreasing trend. Thus it can be concluded that NSBL will collect more deposits in the future but EBL won't be enjoy for deposit collection due to suffering of loss.

- ❖ The expected *Net Profit* of both banks under study is in increasing trend and the growth rate of trend of net profit of EBL is highest. According to trend analysis and the growth rate it can be concluded that EBL seems to be in good position while NSBL is in satisfactory position.

- ❖ Regarding the *Shareholder's Funds to Total Deposit* both banks performed satisfactory results. Thus both banks are sufficient amount of shareholder's funds in comparison to the amount of total deposits. During 2007/08 to 2010/11 EBL is above the average.

- ❖ Both banks have appeared as a stable bank regarding to attain stable *Shareholder's Fund to Total Assets*. On comparing to these banks under shareholder's fund to total assets ratio are in satisfactory level while NSBL bank needs to add some shareholder's funds. During the year 2007/08 to 2010/11 EBL is above the average. In 2006/07 NSBL is above the average.

- ❖ The expected *Total Deposit* of NSBL is in increasing trend but EBL is in decreasing trend. Thus it can be concluded that NSBL will collect more deposits in the future but EBL won't be enjoy for deposit collection due to suffering of loss. Finally, in statistical analysis, NSBL seems better comparing to EBL under study.

- ❖ NSBL is able to maintain the highest in *Return on Total Assets* among banks with the ratio 1.83% in the fiscal year 2063/064. But EBL is fluctuating trend. This shows that EBL is loosing their market position. During 2006/07 to 2010/11 NSBL is above the average.

- ❖ In case of *correlation between Total Deposit and Total Investment,* by considering probable error, the value of 'r' of both banks are 0.716 and 0.9679 which are greater than six times of PEr are 0.6315 and 0.1109. It means there are significance relationship between Total Deposit and Total Investment of both banks.

CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

Ratio is a popular and widely used tool for the analysis of financial performance. It is used for the analysis of stock, creditors and so on. But ratio is not free from limitations. Although, ratio can be used it for the prediction purpose and to some extent the prediction is correct also. Financial institution includes banks, finance companies, co-operative organizations and insurance companies. All of them do contribute something to the economy of the country. Financial institutions play a vital role in the proper functioning of an economy. Among them, banking sector plays an important role in the economic development of the country. Commercial banks are one of the vital aspects of this sector, which deals in the process of channelizing the available resources in the needed sectors. It is the intermediary between the deficit and surpluses of financial resource.

Present study is very successful to meet the stated objectives designed for the study. The researcher highlights or introduces the meaning and importance of research paper and meets the objectives followed by various sequential steps.

First chapter of the study dealt about basic assumption of the study. Basically it highlights the concept and importance or significance of the study. It also presents research issues, research problems, basic objectives of the study, rationality of the study, limitation of the study, process of the study and introduction of the study. Lastly, it discusses about the organizational structure of the study.

Second chapter helped the researcher to provide knowledge about the development and progress made by the earlier researcher on the concerned field or topic of the study. It helped to know the research work undertaken by them. It also tried to know the some concept used in this study. Moreover, it summarized the finding of the previous findings of the study to provide knowledge about the background of the work done by them and to step the duplicate of previous work. Lastly, earlier international research related to concept is also attempted to review the finding of the study.

Third chapter of the study discussed about various research methodologies used for the study. Basically, research methodology here signifies the research design, sources of data, population and sample of data, data collection procedure, data collection techniques, data collection methods and tools and techniques employed etc.

Fourth chapter of the study dealt about data presentation and analysis. It first presented the generated data in tabular form and analyzed it in systematically as per

the objectives mentioned above. The researcher tried to analyze the comparative financial condition or position of bank in terms of asset ad liabilities practices, comparative industrial environment of bank with respect to Assets and Liabilities management.

The commercial banking in Nepal started from 1937 AD with the establishment of Nepal Bank Limited. Commercial bank came into existence mainly with the objectives of collecting the idle funds, mobilizing them into productive sector and causing and overall economic development. With an objective to enhance efficiency and healthy competition, quality banking service and technology in banking sector are introduced by foreign investment. With the opening of NABL bank in 1984 the door of commercial banks was opened to the private sector. All the commercial banks have their own rules and regulations and own vision but ultimately they are serving nation to build huge financial resources and mobilizing it in the best possible way.

Liabilities and assets structure management is the primary focus of funds management and interrelation between the sources and uses of funds in the short-term financial planning and decision making. The assets and liabilities management of the commercial banks is not satisfactory to the present requirements thus this research is to analyze the components of assets and liabilities of joint venture commercial banks in Nepal. The specific objective of this research is to assist the assets and liabilities management of joint venture commercial banks in Nepal.

Financial analysis is the proper identification of the financial strengths and weakness of the firm by establishing correct relationships between the items of balance sheet and profit and loss account. Ratio analysis is a powerful tool of financial analysis. Some statistical and financial tools have been applied to examine the facts and descriptive techniques have been adopted to evaluate the structure of commercial banks. After completion of the basic analysis required for the study, the final and most important task of the researcher is to enlist findings issue and gaps of the study and give suggestions for further improvement. The main objective of this research is not only pointed out faults and errors but also to provide sound directions for further improvement.

5.2   Conclusions

❖ The analysis reveals that NSBL seemed too satisfactory in mobilizing its total deposit as loan and advances. EBL bank needs to mobilize their deposits in most secure loans.

❖ NSBL has capacity to mobilize its deposits on total investment is preferable and performed better. During 2006/07 to 2010/11 only NSBL is above the average.

❖ From the liquidity point of view, NSBL seems better which the result of higher portion of fixed deposit is possible. From 2006/07 to 2010/11 NSBL is above the average.

❖ It can be concluded that EBL is failed to utilize the funds in loan and advances but get success in utilizing their funds in investment and performing assets to maximize the returns and may lag behind the competitive market of banking.

❖ It can be concluded that the case of cash and bank balance to total deposit position of EBL is better than NSBL.

❖ The banks are in better position because of higher utilization of resources in relation to the total assets which yield higher return for the banks. From 2006/07 to 2010/11 only NSBL is above the average.

❖ NSBL is able to maintain the highest in *Return on Total Assets* among banks with the ratio 1.83% in the fiscal year 2010/11. But EBL is fluctuating trend. This shows that EBL is loosing their market position. During 2006/07 to 2010/11 NSBL is above the average.

❖ Comparing both the banks NSBL is able to maintain high in *Return on Total Deposit* i.e. 2.23% in the fiscal year 2010/11. It means NSBL is capable to mobilize the total deposit properly in the productive sectors. EBL perform better at first but later on it decreases to -11.31% during the year 2010/11 because of its bad lending management and unsuccessful in utilizing the funds in generating sectors.

❖ Regarding the *Shareholder's Funds to Total Deposit* both banks performed satisfactory results. Thus both banks are sufficient amount of shareholder's funds in comparison to the amount of total deposits. During 2007/08 to 2010/11 EBL is above the average.

❖ It can be concluded that Capital Adequacy position of NABI and EBL seem to be better.

❖ Both banks are significance relationship between Total Deposit and Total Investment of both banks.

- ❖ The *Return on Risky Assets* Ratio of NSBL is very good comparing to EBL. EBL is decreasing trend due to suffering loss.

- ❖ EBL is able to maintain highest ratio in *Interest Earned to Total Assets Ratio* i.e. 13.54% during the year 2010/11. This shows that EBL is efficient in earning interest or utilizing the resources in interest generating sectors. During 2006/07 to 2010/11 EBL is above the average. Finally, it can be concluded that the position of EBL is better than NSBL.

- ❖ According to trend analysis and the growth rate it can be concluded that EBL seems to be in good position while NSBL is in satisfactory position.

- ❖ Though other commercial banks are gaining its position day by day, there is more or less monopoly done by both banks. They have a high rate of deposits, credit as well as investment.

- ❖ Commercial banks play an important role in the economic development of the country. Being a soul of the economic development, Nepalese commercial banks face several problems related to maintain efficient capital and assets structure management. They are still working with traditional approach. They need to achieve innovative approach of banking, thereby bringing professionalism in their business. At the same time it should target not only the urban sector, it should go to the rural sector also. They have to explore all the potential sectors like tourism etc. in order to generate high rate of profits.

- ❖ The expected *Total Deposit* of NSBL is in increasing trend but EBL is in decreasing trend. Thus it can be concluded that NSBL will collect more deposits in the future but EBL won't be enjoy for deposit collection due to suffering of loss. Finally, in statistical analysis, NSBL seems better comparing to EBL under study.

- ❖ Commercial Banks are one of the vital aspects of this sector, which deals in the process of channelizing the available resources in the needed sector. It is the intermediary between the deficit and surplus of financial resources. It is the pillar of the economic system of the country. They utilizes the idle resources to the market, returns back to the shareholder by the way of dividend, returns back to the depositors by way of interest and returns back to the country by way of corporate tax.

5.3 Recommendations

❖ EBL is very less in Return on Total Assets thus the bank has to concentrate little bit in performing assets. EBL is also less in Return on Total Deposits therefore bank should improve its lending management and utilize the deposits properly. The Return on Risky Assets Ratio of EBL is also very less therefore it is advisable to increase in the credit sector to boost the credit facilities to the potential customers. The ratio of Interest Earned to Total Assets of EBL is satisfactory. Therefore, EBL should be improve by exploiting a credit market and have to generate more profit.

❖ EBL is satisfactory in also Shareholder's Fund to Total Deposit Ratio as well as in Shareholder's Fund to Total Assets therefore bank needs to add more funds for shareholder's and try to generate more profit.

❖ The performance of Current Ratio of EBL also in better position but the bank should try to meet the standard of current ratio. In the case of EBL Cash and Bank Balance of the company is also relatively higher which need to be investment for more return.

❖ EBL is quite good in Total Credit to Total Deposit Ratio but it has lowest ratio in Total Investment and Total Deposit therefore it shows that EBL seems to be quite successful in utilizing the funds in loans and advances but fails to utilize the funds in investment. The Performing Assets to Total Asset Ratio is slightly lower than NSBL. It is suggested to increase little more so that non-performing asset ratio will be lower.

❖ From the Deposit Analysis it can be concluded that NSBL perform good in collecting the Total Deposits thus it could make more profit by mobilizing their deposits properly in productive sector.

❖ According to Liquidity position, Current Ratio of NSBL is good but this ratio must increase in order to back its short-term obligations. NSBL has to increase Cash and Bank Balance in order to prepare for high amount of withdrawals.

❖ Activity Ratios shows that the Total Credit to Total Deposit Ratio of NSBL is satisfactory and the ratio of Total Investment and Total Deposit is good therefore there should be proper balance between credit sector and investment sector in order to boost the profit. NSBL has standard Performing Assets to Total Asset Ratio therefore this bank is performing quite well. Hence, this bank is in better position because of higher utilization of resources in relation to the total assets which yield higher return for the bank.

- ❖ The trend values of net profit, Total Deposit and Total Credit of NSBL are in increasing trend but satisfactory level therefore NSBL should try to utilize its non-performing assets and try to explore new market.

- ❖ In correlation of Coefficient Analysis, correlation of Total Deposit and Total Investment of EBL is significant thus EBL needs to invest more in profitable sectors and try to invest more deposits properly. The relation between Total Performing Assets and Total Deposits of EBL is significant and it has utilized highest deposits as performing assets than other banks hence EBL should try to spread out business in new sector.

- ❖ According to Profitability Ratios, NSBL is quite good in Return on Total Assets as well as in Return on Total Deposits but the bank has to concentrate little bit on performing assets and utilization of deposits. NSBL is not so good in Return on Risk Assets therefore NSBL needs to increase by exploiting a new market.

- ❖ The trend values of Net profit are increasing but Total Deposit and Total Credit of EBL are in decreasing trend. It is because suffering from loss. So EBL is recommended to eliminate the holding loss by reducing extra expanses to adopting the competitor's strategy.

- ❖ In Capital Adequacy Ratios, NSBL is good in Shareholder's Fund to Total Deposit Ratio. Hence, bank needs to add more funds for maintaining sufficient amount of shareholder's funds in comparison to the amount of total deposits. Shareholder's Fund to Total Assets of NSBL is also better but bank should to generate more profit.

- ❖ In Correlation of Coefficient Analysis, correlation of Total Deposit and Total Investment of NSBL in significant thus NSBL needs to invest deposit in government and non government sectors and other profitable sectors. The relation between Total Performing Assets and Total Deposits of NSBL in significant but NSBL should utilize more amount of deposit.

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Calculation of correlation between Total Deposit and Total Investment of NSBL

(In Million)

Year	Total Deposit(X)	Total Investment(Y)	XY	X^2	Y^2
2006/07	10864.33	2897.39	3147820.10	118033666.30	8394521.13
2007/08	7198.33	2259.12	16261891.27	51815954.79	5103623.17
2008/09	8654.77	3020.79	26144242.67	74905043.75	9125172.22
2009/10	11002.04	4410.96	48529558.36	121044884.20	19456568.12
2010/11	11445.29	3427.03	39223352.19	130994663.20	11744534.62
N=5	X= 49164.76	Y=16015.29	XY= 161637245.6	X^2= 496794212.20	Y^2= 53824419.26

Correlation coefficient can be calculated by using following formula:

$$r = \frac{N \sum XY - \sum X \sum Y}{\sqrt{N \sum X^2 - (\sum X)^2}\sqrt{N \sum Y^2 - (\sum Y)^2}}$$

$$= \frac{5(161637245.6) - (49164.76)(16015.29)}{\sqrt{5(496794212.20) - (49164.76)^2}\sqrt{5(53824419.26) - (16015.29)^2}}$$

$$= \frac{808186228 - 787387889.20}{\sqrt{66797435.14}\sqrt{12632582.52}}$$

$$= \frac{20798338.80}{(8172.97)(3554.23)}$$

$$= \frac{20798338.30}{29048615.16}$$

$$= 0.716$$

Calculation of probable error (PEr)

$$PEr = 0.6745 \times \frac{1 - r^2}{\sqrt{N}}$$

$$= 0.6745 \times \frac{1 - (0.716)^2}{\sqrt{5}}$$

$$= 0.6745 \times \frac{0.487344}{2.2361}$$

$$= 0.6745 \times 0.2179$$
$$= 0.147$$

Calculation of correlation between Total Deposit and Total Investment of EBL

(In Million)

Year	Total Deposit(X)	Total Investment(Y)	XY	X²	Y²
2006/07	10591.08	2563.78	27153199.08	112170975.60	6572967.89
2007/08	12807.38	3241.33	41512945.02	164028982.50	10506220.17
2008/09	12125.58	2962.18	35918150.56	147029690.30	8774510.35
2009/10	13015.14	3361.98	43756640.38	169393869.20	11302909.52
2010/11	9385.95	1470.74	13804292.10	88096057.40	2163076.15
N=5	**X= 57925.13**	**Y=13600.01**	**XY= 162145227.1**	**X²= 680719575**	**Y²= 39319684.08**

Correlation coefficient can be calculated by using following formula:

$$r = \frac{N \sum XY - \sum X \sum Y}{\sqrt{N \sum X^2 - (\sum X)^2}\sqrt{N \sum Y^2 - (\sum Y)^2}}$$

$$= \frac{5(162145227.10) - (57925.13)(13600.01)}{\sqrt{5(680719575) - (57925.13)^2}\sqrt{5(39319684.08) - (13600.01)^2}}$$

$$= \frac{810726135.50 - 787782347.30}{\sqrt{48277189.48}\sqrt{11638148.40}}$$

$$= \frac{22943788.20}{(6948.18)(3411.47)}$$

$$= \frac{22943788.20}{23703507.62}$$

$$= 0.9679$$

Calculation of probable error (PEr)

$$PEr = 0.6745 \times \frac{1 - r^2}{\sqrt{N}}$$

$$= 0.6745 \times \frac{1 - (0.968)^2}{\sqrt{5}}$$

$$= 0.6745 \times 2.8250$$

$$= 0.0191$$

Calculation of correlation between Total Deposit and Total Performing Assets of NSBL

(In Million)

Year	Total Deposit(X)	Total Perfoming Assets (Y)	XY	X^2	Y^2
2006/07	10864.33	6396.73	69496185.64	118033666.30	40918154.69
2007/08	7198.33	7051.18	50756720.53	51815954.79	49719139.39
2008/09	8654.77	8944.67	77414061.58	74905043.75	80007121.41
2009/10	11002.04	11600.71	127631475.4	121044884.20	134576472.50
2010/11	11445.29	12469.9	142721621.8	130994663.20	155498406.00
N=5	**X= 49164.76**	**Y=46463.19**	**XY= 468020065**	**X^2= 496794212.20**	**Y^2= 460719294.00**

Correlation coefficient can be calculated by using following formula:

$$r = \frac{N\sum XY - \sum X \sum Y}{\sqrt{N\sum X^2 - (\sum X)^2}\sqrt{N\sum Y^2 - (\sum Y)^2}}$$

$$= \frac{5(468020065) - (49164.76)(46463.19)}{\sqrt{5(496794212.20) - (49164.76)^2}\sqrt{5(460719294) - (46463.19)^2}}$$

$$= \frac{2340100325 - 2284351585}{\sqrt{66797435.14}\sqrt{144768445}}$$

$$= \frac{55748740}{(8172.97)(12031.98)}$$

$$= \frac{55748740}{98337011.58}$$

$$= 0.5669$$

Calculation of probable error (PEr)

$$PEr = 0.6745 \times \frac{1 - r^2}{\sqrt{N}}$$

$$= 0.6745 \times \frac{1 - (0.5669)^2}{\sqrt{5}}$$

$$= 0.6745 \times 0.3035$$

$$= 0.2047$$

Calculation of correlation between Total Deposit and Total Performing Assets of EBL

(In Million)

Year	Total Deposit(X)	Total Performing Assets (Y)	XY	X^2	Y^2
2006/07	10591.08	9516.90	100794249.3	112170975.60	90571385.61
2007/08	12807.38	11347.91	145336995.6	164028982.50	128775061.40
2008/09	12125.58	10199.41	123673761.9	147029690.30	104027964.30
2009/10	13015.14	9152.11	119115992.9	169393869.20	83761117.45
2010/11	9385.95	5493.57	51562373.34	88096057.40	30179311.34
N=5	**X= 57925.13**	**Y=45709.9**	**XY= 540483373.**	**X^2= 680719575**	**Y^2= 437314840.10**

Correlation coefficient can be calculated by using following formula:

$$r = \frac{N\sum XY - \sum X \sum Y}{\sqrt{N\sum X^2 - (\sum X)^2}\sqrt{N\sum Y^2 - (\sum Y)^2}}$$

$$= \frac{5(540483373) - (57925.13)(45709.9)}{\sqrt{5(680719575) - (57925.13)^2}\sqrt{5(437314840.10) - (45709.9)^2}}$$

$$= \frac{2702416865 - 2647751900}{\sqrt{48277189.48}\sqrt{97179242.49}}$$

$$= \frac{54664965}{(6948.18)(9857.95)}$$

$$= \frac{54664965}{68494811.03}$$

$$= 0.7981$$

Calculation of probable error (PEr)

$$\text{PEr} = 0.6745 \times \frac{1 - r^2}{\sqrt{N}}$$

$$= 0.6745 \times \frac{1 - (0.7981)^2}{\sqrt{5}}$$

$$= 0.6745 \times 0.1624$$

$$= 0.1095$$

APPENDIX-III
Trend values of Net profit
For the period ending 2006/07 to 2010/11 of NSBL

(In Million)

F/Y (t)	Net Profit(Y)	t-2008/09 (X)	X^2	XY	Yc=a+bx Yc=108.96+45.67X
2006/07	54.63	-2	4	-109.26	17.62
2007/08	60.85	-1	1	-60.85	63.29
2008/09	57.39	0	0	0	108.96
2009/10	117	1	1	117	154.63
2010/11	254.91	2	4	509.82	200.30
N=5	Y=544.78	X=0	X^2=10	XY=456.71	544.80

The equation of straight-line trend is:

$Yc = a+bx$…………….eq^n (I)

By the solving the following equation we get the value of a and b:

$Y = Na + b\,X$……………. eq^n (II)

$XY = a\,X + b\,x^2$…………… eq^n (III)

Putting the value of X, Y, X^2, XY, and N in eq^n (II) and eq^n (III), we get the values of a and b as:

For eq^n (II),

$Y = Na + b\,X$

$544.78 = 5 \times a + b \times 0$

$$a = \frac{544.78}{5}$$

$= 108.96$ Million

Again,

For eq^n (III),

$XY = a\,X + b\,x^2$

$456.71 = a \times 0 + b \times 10$

$456.71 = 10b$

$$b = \frac{456.71}{10}$$

$b = 45.67$ Million

Trend values of Net profit
For the period ending 2006/07 to 2015/16

(In Million)

F/Y (t)	t-2008/09 (X)	Yc=a+bx Yc=108.96+45.67X
2011/12	3	245.97
2012/13	4	291.64
2013/14	5	337.31
2014/15	6	382.98
2015/16	7	428.65

Trend values of Net profit
For the period ending 2006/07 to 2010/11 of EBL

(In Million)

F/Y (t)	Net Profit(Y)	t-2008/09 (X)	X^2	XY	Yc=a+bx Yc=286.31 +189.80X
2006/07	126.13	-2	4	-252.26	93.29
2007/08	63.49	-1	1	-63.49	96.51
2008/09	89.77	0	0	0	286.31
2009/10	90.58	1	1	90.58	476.11
2010/11	1061.58	2	4	2123.16	665.91
N=5	Y=1431.55	X=0	X^2=10	XY=1897.99	1431.55

The equation of straight-line trend is:

$Yc = a + bx$ ……………..eq^n (I)

By the solving the following equation we get the value of a and b:

$Y = Na + b\ X$ ………………. eq^n (II)

$XY = a\ X + b\ x^2$ …………… eq^n (III)

Putting the value of X, Y, X^2, XY, and N in eq^n (II) and eq^n (III), we get the values of a and b as:

For eq^n (II),

$Y = Na + b\ X$

$1431.55 = 5 \times a + b \times 0$

$a = \dfrac{1431.55}{5}$

$= 286.31$ Million

Again,

For eq^n (III),

$XY = a\ X + b\ x^2$

$1897.99 = a \times 0 + b \times 10$

$1897.99 = 10b$

$b = \dfrac{1897.99}{10}$

$b = 189.80$ Million

Trend values of Net profit
For the period ending 2006/07 to 2015/16

(In Million)

F/Y (t)	t-2008/09 (X)	Yc=a+bx Yc=286.31 +189.80X
2011/12	3	855.71
2012/13	4	1045.51
2013/14	5	1235.31
2014/15	6	1425.11
2015/16	7	1614.91

APPENDIX-IV
Trend values of Total Deposit
For the period ending 2006/07 to 2010/11 of NSBL

(In Million)

F/Y (t)	Total Deposit (Y)	t-2008/09 (X)	X^2	XY	Yc=a+bx Yc=9832.95+496.56 X
2006/07	10864.33	-2	4	-21728.66	17.62
2007/08	7198.33	-1	1	-7198.33	63.29
2008/09	8654.77	0	0	0	108.96
2009/10	11002.04	1	1	11002.04	154.63
2010/11	11445.29	2	4	22890.58	200.30
N=5	Y=49164.76	X=0	X^2=10	XY=4965.63	49164.76

The equation of straight-line trend is:

$Yc = a+bx$ ....eqⁿ (I)

By the solving the following equation we get the value of a and b:

$Y = Na + b\ X$ .... eqⁿ (II)

$XY = a\ X + b\ x^2$ .... eqⁿ (III)

Putting the value of X, Y, X^2, XY, and N in eqⁿ (II) and eqⁿ (III), we get the values of a and b as:

For eqⁿ (II),

$Y = Na + b\ X$

$49164.76 = 5 \times a + b \times 0$

$$a = \frac{49164.76}{5}$$

= 9832.95 Million

Again,

For eqⁿ (III),

$XY = a\ X + b\ x^2$

$4965.63 = a \times 0 + b \times 10$

$4965.63 = 10b$

$$b = \frac{4965.63}{10}$$

$b = 496.56$ Million

Trend values of Total Deposit
For the period ending 2006/07 to 2015/16

(In Million)

F/Y (t)	t-2008/09 (X)	Yc=a+bx Yc=9832.95+496.56X
2011/12	3	11322.63
2012/13	4	11819.19
2013/14	5	12315.75
2014/15	6	12812.31
2015/16	7	13308.87

Trend values of Total Deposit
For the period ending 2006/07 to 2010/11 of EBL

(In Million)

F/Y (t)	Total Deposit (Y)	t-2008/09 (X)	X^2	XY	Yc=a+bx Yc=11585.03-220.25X
2006/07	10591.08	-2	4	-21182.16	12025.53
2007/08	12807.38	-1	1	-12807.38	11805.28
2008/09	12125.58	0	0	0	11585.03
2009/10	13015.14	1	1	13015.14	11364.78
2010/11	9358.95	2	4	18771.19	11144.53
N=5	Y=57925.13	X=0	X^2=10	XY=-2202.5	57925.15

The equation of straight-line trend is:

$Yc = a+bx$ ....eq^n (I)

By the solving the following equation we get the value of a and b:

$Y = Na + b \sum X$ .... eq^n (II)

$\sum XY = a \sum X + b \sum x^2$ .... eq^n (III)

Putting the value of $\sum X$, $\sum Y$, $\sum X^2$, $\sum XY$, and N in eq^n (II) and eq^n (III), we get the values of a and b as:

For eq^n (II),

$\sum Y = Na + b \sum X$

$57925.13 = 5 \times a + b \times 0$

$a = \dfrac{57925.13}{5}$

$= 11585.03$ Million

Again,

For eq^n (III),

$\sum XY = a \sum X + b \sum x^2$

$-2202.50 = a \times 0 + b \times 10$

$-2202.50 = 10b$

$b = \dfrac{Z2202.50}{10}$

$b = -220.25$ Million

Trend values of Total Deposit
For the period ending 2006/07 to 2015/16

(In Million)

F/Y (t)	t-2008/09 (X)	Yc=a+bx Yc=11585.03-220.25X
2011/12	3	10924.28
2012/13	4	10704.03
2013/14	5	10483.78
2014/15	6	10263.53
2015/16	7	10043.28

APPENDIX-V
Trend values of Total Credit
For the period ending 2006/07 to 2010/11 of NSBL

(In Million)

F/Y (t)	Total Credit(Y)	t-2008/09 (X)	X^2	XY	Yc=a+bx Yc=6655.5+1173.84 X
2006/07	4832.79	-2	4	-9665.58	4307.82
2007/08	5143.66	-1	1	-5143.66	5481.66
2008/09	6213.88	0	0	0	6655.5
2009/10	7626.74	1	1	7626.74	7829.34
2010/11	9460.45	2	4	18920.90	9003.18
N=5	Y=33277.52	X=0	X^2=10	XY=4965.63	33277.52

The equation of straight-line trend is:

$Yc = a+bx$ ……………. eq^n (I)

By the solving the following equation we get the value of a and b:

$Y = Na + b\,X$ ……………. eq^n (II)

$XY = a\,X + b\,x^2$ …………… eq^n (III)

Putting the value of X, Y, X^2, XY, and N in eq^n (II) and eq^n (III), we get the values of a and b as:

For eq^n (II),

$Y = Na + b\,X$

$33277.52 = 5 \times a + b \times 0$

$$a = \frac{33277.52}{5}$$

$= 6655.50$ Million

Again,

For eq^n (III),

$XY = a\,X + b\,x^2$

$11738.40 = a \times 0 + b \times 10$

$11738.40 = 10b$

$$b = \frac{11738.40}{10}$$

$b = 1173.84$ Million

Trend values of Total Credit
For the period ending 2006/07 to 2015/16

(In Million)

F/Y (t)	t-2008/09 (X)	Yc=a+bx Yc=6655.5+1173.84X
2011/12	3	10177.02
2012/13	4	11350.86
2013/14	5	12524.70
2014/15	6	13698.54
2015/16	7	14872.38

Trend values of Total Credit
For the period ending 2006/07 to 2010/11 of EBL

(In Million)

F/Y (t)	Total Credit (Y)	t-2008/09 (X)	X^2	XY	Yc=a+bx Yc=6910.73-786.64X
2006/07	7247.98	-2	4	-14495.96	8484.01
2007/08	8648.74	-1	1	-8648.74	7697.37
2008/09	7787.69	0	0	0	6910.73
2009/10	6460.25	1	1	6460.25	6124.09
2010/11	4409.01	2	4	8818.02	5337.45
N=5	Y=34553.67	X=0	X^2 =10	XY=- 7866.43	34553.67

The equation of straight-line trend is:

$Yc = a+bx$ ……………..eq^n (I)

By the solving the following equation we get the value of a and b:

$Y = Na + b \ X$ ……………. eq^n (II)

$XY = a \ X + b \ x^2$ …………… eq^n (III)

Putting the value of X, Y, X^2, XY, and N in eq^n (II) and eq^n (III), we get the values of a and b as:

For eq^n (II),

$Y = Na + b \ X$

$34553.67 = 5 \times a + b \times 0$

$$a = \frac{34553.67}{5}$$

$= 6910.73$ Million

Again,

For eq^n (III),

$XY = a \ X + b \ x^2$

$-7866.43 = a \times 0 + b \times 10$

$-7866.43 = 10b$

$$b = \frac{Z7866.43}{10}$$

$b = -786.64$ Million

Trend values of Total Credit
For the period ending 2006/07 to 2015/16

(In Million)

F/Y (t)	t-2008/09 (X)	Yc=a+bx Yc=6910.73-786.64X
2011/12	3	4550.81
2012/13	4	3764.17
2013/14	5	2977.53
2014/15	6	2190.89
2015/16	7	1404.25