

**A COMPARATIVE STUDY OF CAPITAL STRUCTURE MANAGEMENT
OF NABIL BANK LTD. AND NEPAL INVESTMENT BANK LTD.**

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2nd Year Exam Roll No.: 3494

A Thesis Submitted to
Office of the Dean
Faculty of Management
Tribhuvan University

In partial fulfillment of the requirement for degree of
Masters in Business Studies (MBS)

April, 2012
Kathmandu

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ACKNOWLEDGEMENT

I would like to express my sincere gratitude to my thesis supervisors Shree Bhadra Neupane and Bishwo Raj Poudel for their valuable guidance and encouragement during the preparation of this research work. I would also like to record my gratefulness to all Lecturers of M.B.S. of Shanker Dev Campus for their support and guidance to my research work.

I would finally like to express gratitude to everyone who helped me directly and indirectly in this thesis work.

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T.U.Reg # 7-2-39-182-2001

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ABBREVIATIONS

ADBN	Agriculture Development Bank, Nepal
BOK	Bank of Kathmandu
B.S.	Bikram Sambat
BVPS	Book Value Per Share
CA	Current assets
Co.	Company
CPI	Consumer Price Index
C.V.	Coefficient of Variation
DER	Debt Equity Ratio
DPR	Dividend Payout Ratio
DPS	Dividend Per Share
EBIT	Earning Before Interest and Tax
EBL	Everest Bank Limited
e.g.	for example
EPS	Earning Per Share
e.t.c.	etcetera
FY	Fiscal Year
GDP	Gross Domestic Product
GNP	Gross National Product
Gov.	Government of Nepal
HBL	Himalayan Bank Limited
i.e.	that is
Ltd.	Limited
MPS	Market Price Per Share
NABIL	Nepal Arab Bank Limited
NIBL	Nepal Investment Bank Limited
No.	Number
NOI	Net Operating Income
NPA	Non Performing assets
NRB	Nepal Rastra Bank
NW	Net Worth

PE	Probable Error
PER	Price Earning Ratio
r	Correlation Coefficient
Rs.	Rupees
S.N.	Serial Number
T.U.	Tribhuvan University
WTO	World Trade Organization
&	and
\bar{X}	Arithmetic Mean
	Standard deviation

CHAPTER - I

INTRODUCTION

1.1 Background of the Study:

Nepal is a developing landlocked agricultural country. Although 80% of population depends on it, various problems like lack of capital, fertilizer, irrigation, latest technology in farming, supportive government policy, are causing to deteriorate position of agriculture in Nepal. More and more people are changing their profession to other areas of trade, commerce and industry.

Banks play major role in economic development of a country largely by supplying fund via investments and mobilizing capital. Economic growth of every nation depends upon the ability of accumulating capital because every industry and trade entity in a country needs sufficient capital to run smoothly. In Nepal too, banks play a major role as a source of capital in the industrial entities .Banks have also been providing funds and loans in the agriculture sector. Agricultural Development Bank and various other banks are operating in Nepal to help farmers in this regard. Thus it can be said that banks are a major source of funds in Nepal as they act as financial intermediaries.

Success and failure of any organization or banks mainly depends upon the structure of its optimum capital structure. It determines the profit making power of the bank as well as it helps to reduce its risk to minimum level. Capital Structure is the mixture of sources of funds a firm uses (debt, preference stock & common stock). The amount of debt that a firm uses to finance its assets is called leverage. A firm with lot of debt in its capital structure is said to be highly levered. Capital structure can be viewed as the permanent financing the firm represents primarily by long term debt, prefer stock & common equity but excluding all short term credit.

The proportions of debt & equity determine a firm's capital structure. Capital is used in financing the firm's assets. The financial manager should seek that the capital structure which maximizes the value of the firm. The capital structure decision & the firm leverage position are co-determined. An optimal financial structure makes better use of society's fund of capital resources, and thus it increases the total wealth of society. Also, by increasing the firm's opportunity to engage in future wealth-creating

investment, it increases the economy's rate of investment and growth. (*Solomon; 1969:92*)

The proportion of the short term & long term debt is considered when analyzing capital structure. And, when people refer to capital structure they are most likely referring to firm debt to equity ratio, which provides insight into how risky a company is. Usually a company more heavily financed by debt poses greater risks. So it gives hindsight to investor, which investment is worthy & which is not.

1.2 Profile of Concerned Banks

The first bank in Nepal was established in 1994 B.S. as Nepal Bank Limited. It acted as a central bank till 2014 B.S when Nepal Rastra Bank was established under NRB act 2012. This thesis is focused mainly on two of the firsts Joint venture Banks i.e. Nabil Bank Ltd. and Nepal Investment Bank Ltd.

1. Nabil Bank Ltd.

Nabil Bank Limited was founded in 1984 as Nepal Arab Bank Ltd. Through joint venture with Dubai Bank Ltd. under a technical service agreement. Its establishment basically started a surge in the concepts of customer service and marketing tools in banks. Dubai Bank which was later acquired by Emirates Bank International Limited sold its share to National Bank Limited, Bangladesh which ultimately changed the name from Nepal Arab Bank Ltd. to Nabil Bank Limited in December 2001. Currently, it has branches all across the nation with its head-office in Kathmandu. Nabil Bank Limited, the first foreign joint venture bank of Nepal, started operations in July 1984. Nabil provides a full range of commercial banking services through its 47 points of representation across the kingdom and over 170 reputed correspondent banks across the globe. Currently, it has 49 branches all over Nepal. (www.nabilbank.com)

2. Nepal Investment Bank Ltd.

Nepal Investment Bank Ltd. (NIBL), previously known as Nepal Indosuez Bank Ltd., was established in 1986 as a joint venture between Nepalese and French partners, Credit Agricole Indosuez (holding 50% of the capital of NIBL).With the decision of

Credit Agricole Indosuez to divest, a group of companies comprising of bankers, professionals, industrialists and businessmen, had acquired on April 2002 the 50% shareholding of Credit Agricole Indosuez in Nepal Indosuez Bank Ltd.

The name of the bank has been changed to Nepal Investment Bank Ltd. upon approval of bank's Annual General Meeting, Nepal Rastra Bank and Company Registrar's office with the following shareholding structure.

- A group of companies holding 50% of the capital
- Rashtriya Baniya Bank holding 15% of the Capital.
- Rashtriya Beema Sansthan holding the same percentage.
- The remaining 20% being held by the General Public (which means that NIBL is a Company listed on the Nepal Stock Exchange).

Nepal Investment Bank Ltd. is a major lender in Nepal as well as in collecting deposits too, it is among the top. It has also been leading in e-banking by having high numbers of e-banking customers. Currently, it has 41 branches around the country. (www.nibl.com.np)

1.2 Focus of the Study:

Commercial banks have deep bearings upon the economic condition of the whole country. Especially in the developing country as ours, economic welfare largely depends on commercial banks and their capital management. Hence, in this study, the effort is made to highlight the capital structure policy of commercial banks which are being studied so that the study can help balance the proportion of the equity and debt capital used by the commercial banks.

Commercial banks in this era are not just about depositing and lending, but they act in various different aspects of services, hence this thesis tries to focus on various aspects on capital structure of commercial banks, with specific focus on Nabil Bank Ltd. and Nepal Investment Bank Ltd. In this regard apart from capital structure, this study also focuses on cost of capital, earning per share of bank, management and performance of bank with help of various tools.

1.3 Statement of the Problems:

For developing country like Nepal, banks are the strong factor in economic development as they provide credit to businesses and industries as well as various other areas. While doing so they also have to keep their capital structure in balanced and proper ratio as per guidelines of central bank. But in Nepal, there is lack of proper utilization of capital partly due to lack of proper knowledge and guidelines and partly due to mismanagement of funds. There are still lots of cases, where loans are provided without following proper guidelines, which basically has caused a lot of problems for various commercial banks in Nepal with the increase in bad debts. Thus, the matter of assisting in economic growth of the company growth of the company by these banks is far away from the reality and in this context of being burden to themselves due to the large proportion of non-performing loan.

Capital structure refers to the proportion of different types of securities issued by the firm like common shares, long term debt, preference share capital, debentures and retained earnings. We know that major portion of the capital comprises of owners fund and creditors fund. The owners expect dividend and appreciation in the share price whereas creditors expect interest and return of the fund at the mentioned time. So the capital structure of the firm is important factor in determining the success of the firms. So the challenge for commercial banks is to make correct capital structure decisions regarding debt and equity.

This present study will try to analyzes and examine the practice of capital structure in Nabil Bank Ltd. and Nepal Investment Bank Ltd. and try to analyze and answer following questions:

1. To what extent has the process of capital structure management is followed in Nabil Bank Ltd. and Nepal Investment Bank Ltd. and what can be done to improve it ?
2. What are actual overall financial conditions of these banks?
3. Is return on equity of these banks satisfactory in relation to risk?
4. How far the banks under study are able to generate income from utilization of debt efficiency?

1.4 Objective of the Study:

This thesis is prepared in order to study, analyze and interpret various aspects of capital structure management of commercial banks selected i.e. Nabil Bank Ltd. and Nepal Investment Bank Ltd.

The following are the objectives of the study.

- ◆ To analyze the capital structure of the Nabil Bank Ltd. and Nepal Investment Bank Ltd.
- ◆ To analyze the relationship of the capital structure with various important variable such as earning per share, dividend per share, & net worth.
- ◆ To provide a workable suggestions & possible guideline to overcome various issues on finding of Nabil Bank Ltd. and Nepal Investment Bank Ltd.
- ◆ To examine the different sources of capital structure of the two banks.

1.5 Significance of the Study:

This study is concerned with capital structure of Nabil Bank Ltd. and Nepal Investment Bank Ltd. And is done with the help of performance of these two banks over last five years. Hence, this thesis bank's capital structure management over last five years could be significant in studying. Capital structure, itself as a field of study, has become the vital & important tool in the field of managerial decisions. Hence, its study will very useful to decision maker & further researcher, too.

The financial institutions, holding render & owner, are more concern with the firm's long-term financial strength. To judge the long term financial position of firm capital structure is worthy to analysis. Capital structure analysis would help to indicate & to follow the appropriate mix of debt & owners equity in financing the firm's assets. A firm having good return & efficient management is considered to be better & brighter in future. Therefore to these significances on account, this study on behalf of firm's capital structure is justified as a specific subject matter.

1.6 Limitations of the Study:

There are limitations of this thesis, which on generalization can be inadequate coverage of banking sector as a whole, period taken & reliability of statistical tools used and other variables. This study is simply a partial requirement of MBS program. So, this study will be limited by following data.

- ◆ Only secondary data will be analyzed to interpret results emerging from decision so the results depend on reliability of secondary.
- ◆ The study period only covers fiscal years beginning 2006/2007 to 2010/2011.
- ◆ There are many factors that affect capital structure of bank. However only those factors related with comparative capital structure will be taken into consideration in this study.
- ◆ This study only focuses on capital structure and ignores other aspects of banks.
- ◆ Only two commercial banks are taken into consideration in this study.

1.7 Organization of the Study:

This study has been categorized in five chapters. Each denotes the specific aspect of the study.

Chapter I: Introduction

This Chapter deals with the subject matter of the study consisting introduction, profile of concerned banks, focus of the study, statement of the problem, objectives of the study, significance of the study, limitations of the study and organization of the study.

Chapter II: Review of Literature

This Chapter deals with review of available literature of studies related to the subject matter. It contains conceptual framework, review of related journals & articles and review of thesis.

Chapter III: Research Methodology

This Chapter is about the research methodology. It offers the method of investigation followed to achieve objective of the study.

Chapter IV: Analysis & Interpretation of Data

This Chapter deals with the presentation & analysis of data by using financial & statistical tools and major findings.

Chapter V: Summary, Conclusions & Recommendations

This Chapter consists output of the study which is presented in the form of summary, conclusions & recommendations.

Lastly, bibliography & appendices also are incorporated after chapter V.

CHAPTER - II

REVIEW OF LITERATURE

This chapter basically seeks to review various books, theories and principles, as well as various studies related to the concept of capital structure and more basically capital structure management of commercial banks in order to fulfill the objective of this thesis. The purpose of literature review is to "develop some expertise in one's area to see what new contribution can be made and to review some idea for developing design." (*Wolf & Pant; 2002*)

For the purpose of literature review, various reviews of books for conceptual framework is done as well as review of related articles, journals and previous thesis.

2.1 Conceptual Framework

This sub chapter basically is related to reviewing various books in order to get the conceptual framework of this thesis.

2.1.1 Meaning and Concept of Capital Structure:

Capital Structure refers to the relationship among various long term forms of financing which includes mainly three types securities i.e. equity shares, preference shares and debenture. It is a part of a firm's financial structure. Financial structure, presented in the liabilities side of balance sheet, includes both long term and short term debt and shareholder's equity. Capital structure is a part of financial structure of a firm that excludes short term debt.

"Financial structure is different from capital structure as capital structure includes only the long-term sources of financing while financial structure includes only the long-term and short-term sources of financing. Long term sources of financing include long-term debt (i.e. bond, debentures etc.) preferred stock and shareholder's equity. Conclusively, it can be said that capital structure is a part of financial structure not the whole." (*Bhattarai; 2005*)

Capital Structure is the mixture of sources of funds a firm uses (debt, preference stock & common stock). The amount of debt that a firm uses to finance its assets is called leverage. A firm with lot of debt in its capital structure is said to be highly levered. To an extent, degree of liquidation of a firm is also dependent on its capital structure.

So, Capital Structure is simply the ratio of different kinds of securities raised by a firm as long-term finance. The capital structure involves two decisions-

- a. Type of securities to be issued are equity shares, preference shares and long term borrowings(Debentures).
- b. Relative ratio of securities can be determined by process of capital gearing. On this basis, the companies are divided into two-
 - i. Highly geared companies- Those companies whose proportion of equity capitalization is small.
 - ii. Low geared companies- Those companies whose equity capital dominates total capitalization.

"The firm's mix of different securities is known as capital structure. The choice of capital structure is fundamentally a marketing problem. The firm can issue dozen's of various securities in countless combination but it attempts to find the combination which maximizes its overall market value."(*Brealey & Myers; 2002*)

"The capital structure is the combination of long-term debt and equity. It is a part of financial structure i.e. comprised to the total combination of preferred stock, common stock, long term debt and current Liabilities. If current Liabilities are removed from it we get capital structure." (*Mathur; 1979:92*)

Capital structure planning is the key to the objective of profit maximization which ensures minimum cost of capital and the maximum rate of return to the equity holders. The amount of capital a firm need is not its only financial consideration and equally important is the capital mix: the kinds of capital that form the company's financial base. How much will be the equity money representing funds owned by the stockholders in the enterprises? A financial manager determines the mix of debt and equity securities which would maximize the value of the sock. To maximize the shareholder's wealth as well to minimize the opportunity cost of capital, optimal capital structure is required. Debt is an important part of capital structure and determines the leverage firm. It increases shareholder's return when the firm has highly operating income but makes them worse than they otherwise would be when the firm has low operating income.

Capital means money or fund. Without capital no one do any thing. The capital has both features of risk as well as return. So, optimal capital mix is required to obtain

high return in tolerable amount of risk. Management of this optimal capital mix is called capital structure management. Capital rises from debenture, long-term debt, preference share, equity shares, and short-term debt including retained earning, reserve and surplus too. Every types of fund have risk. They require different rate of return. Common stock is riskier and it required rate of return will be higher than that of debt.

The cost of capital will depend upon the proportion of capital (debt and equity) when capital structure is optimal it get optimal risk which makes entrepreneurs capable to hold the market in this competitive business environment for long period. On the basis of priority to achieve the money in the liquidation of the firm long-term debt get first priority, short term debt get second priority, preference share get third priority and equity share get last priority. The capital structure should be planned generally keeping in view the interest of the equity shareholders and the financial requirement of a company. However the interest of other groups, such as employees, customers, creditors, society and government, should also be given reasonable consideration. The management of a company may fix its capital structure near the top of this range in order to make maximum use of favorable leverage, subject to other requirements such as flexibility, solvency, control and norms set by the financial institutions, the Security Exchange Board of Nepal and stock exchanges.

"Financial leverage is related to the extent to which a firm relies on debt financing rather than equity. Measures of financial leverage are tools in determining the probability that the firm will default on its debt contracts. The more debt a firm has, the more likely it is that the firm will become unable to fulfill its contractual obligations. In other words, too much debt can lead to a higher probability of insolvency and financial distress." (*Ross, Westerfield, Jaffe; 2002*)

Thus, it is necessary that the firm should make a portfolio of such types of capitals, which result higher return with low cost of capitals. The firm should also to generate at least sufficient cash flow to pay investors and creditors (i.e. shareholders, preference shareholders and dept holders). So the firm should yield more cash flow than to just satisfy the investor's expectation to maximize the shareholders wealth and the firm should try to obtain necessary funds in lowest cost as soon as possible.

2.1.2 Factors affecting Capital Structure:

Following are some important factors which affect capital structure of an entity:

1. Trading on Equity-

The word “equity” denotes the ownership of the company. Trading on equity means taking advantage of equity share capital to borrowed funds on reasonable basis. It refers to additional profits that equity shareholders earn because of issuance of debentures and preference shares. It is based on the thought that if the rate of dividend on preference capital and the rate of interest on borrowed capital is lower than the general rate of company’s earnings, equity shareholders are at advantage which means a company should go for a judicious blend of preference shares, equity shares as well as debentures. Trading on equity becomes more important when expectations of shareholders are high.

2. Degree of Control-

In a company, it is the directors who are so called elected representatives of equity shareholders. These members have got maximum voting rights in a concern as compared to the preference shareholders and debenture holders. Preference shareholders have reasonably less voting rights while debenture holders have no voting rights. If the company’s management policies are such that they want to retain their voting rights in their hands, the capital structure consists of debenture holders and loans rather than equity shares.

3. Flexibility of Financial Plan-

In an enterprise, the capital structure should be such that there is both contractions as well as relaxation in plans. Debentures and loans can be refunded back as the time requires. While equity capital cannot be refunded at any point which provides rigidity to plans. Therefore, in order to make the capital structure possible, the company should go for issue of debentures and other loans.

4. Choice of Investors-

The company’s policy generally is to have different categories of investors for securities. Therefore, a capital structure should give enough choice to all kind of

investors to invest. Bold and adventurous investors generally go for equity shares and loans and debentures are generally raised keeping into mind conscious investors.

5. Capital Market Condition-

In the lifetime of the company, the market price of the shares has got an important influence. During the depression period, the company's capital structure generally consists of debentures and loans. While in period of boons and inflation, the company's capital should consist of share capital generally equity shares.

6. Period of Financing-

When company wants to raise finance for short period, it goes for loans from banks and other institutions; while for long period it goes for issue of shares and debentures.

7. Cost of Financing-

In a capital structure, the company has to look to the factor of cost when securities are raised. It is seen that debentures at the time of profit earning of company prove to be a cheaper source of finance as compared to equity shares where equity shareholders demand an extra share in profits.

8. Stability of Sales-

An established business which has a growing market and high sales turnover, the company is in position to meet fixed commitments. Interest on debentures has to be paid regardless of profit. Therefore, when sales are high, thereby the profits are high and company is in better position to meet such fixed commitments like interest on debentures and dividends on preference shares. If company is having unstable sales, then the company is not in position to meet fixed obligations. So, equity capital proves to be safe in such cases.

9. Sizes of a Company-

Small size business firms capital structure generally consists of loans from banks and retained profits. While on the other hand, big companies having goodwill, stability and an established profit can easily go for issuance of shares and debentures as well as loans and borrowings from financial institutions. The bigger the size, the wider is total capitalization.

2.1.3 Basic Assumptions and Definitions in Capital Structure Theories:

The theories of Capital Structure basically are based upon following assumptions:

- All investors have complete knowledge of what future returns will be
- All firms within an industry have the same risk regardless of capital structure
- No taxes (we will relax this assumption subsequently)
- No transactions costs
- Individuals can borrow as easily and at the same rate of interest as the corporation
- All earnings are paid out as dividends (thus, earnings are constant and there is no growth)
- The average cost of capital is constant

Following definitions are used in Capital Structure Theories:

$$\text{a) Cost of debt } (K_d) = \frac{\text{Interest}}{\text{Debt}} = \frac{I}{B}$$

$$\text{b) Cost of equity } (K_e) = \frac{EBIT - I}{S} = \frac{NOI - I}{S} = \frac{NI}{S}$$

$$\text{c) Overall Cost of Capital } (K_o) = K_d(B/V) + K_e(S/V)$$

$$\text{d) Value of the Firm } (V) = B + S = \frac{I}{K_d} + \frac{EBIT - I}{K_e}$$

2.1.4 Capital Structure Theories:

There have been various theories or approaches regarding Capital Structure in the course of time. Basically, there are four approaches to Capital Structure theory.

1. Traditional approach
2. Net income approach
3. Net operating income approach
4. Modigliana-Miller (M-M) approach
 - I. Without taxes
 - II. With taxes

The Net Income theory and Net Operating Income theory stand in extreme forms. Traditional approach stands in the midway between these two theories.

1. Traditional Approach:

This Traditional theory was advocated by financial experts Ezra Solomon and Fred Weston. According to this theory a proper and right combination of debt and equity will always lead to market value enhancement of the firm. This approach accepts that the equity shareholders perceive financial risk and expect premiums for the risks undertaken. This theory also states that after a level of debt in the capital structure, the cost of equity capital increases.

"According to this view, the value of firm can be increased or the cost of capital can be reduced by a judicious mix of debt and equity capital, and that an optimum capital structure exists of every firm. This approach very clearly implies that the cost of capital decreases within the reasonable limit of debt and then increases with leverage. Thus, an optimum capital structure exists, and it occurs when the cost of capital is minimum or the value of firm is maximum." (*Barges; 1983*)

This traditional approach advocates that there are three stages in which overall cost of capital react to changes in capital structure.

a. First Stage:

In this stage, the cost of equity K_e remain constant or rises slightly with debt. But when it increases, it does not increase fast enough to offset the advantage of low cost debt. K_d remain constant or rises negligibly since the market views the use of debt as a reasonable policy. As a result, the value of the firm 'V' increases or the overall cost of capital, K_o decreases.

b. Second Stage:

In the second stage, the firm has reached a certain degree of leverage. Increases in leverage have a negligible effect on the value or the cost of capital of the firm. This is so because the increase in the cost of equity due to the added financial risk offset the advantage of low cost of debt. Within the range of the specific point, the value of the firm will be maximum or the overall cost of capital will be minimum.

c. Third Stage:

In the stage, the value of the firm decrease with leverage or the cost of the capital increases with leverage. This happens because investors perceive a high degree of financial risk and demand a higher equity capitalization rate, which offsets offset the advantage of low cost debt.

So the three stages can be summarized as,

- a) Increase Valuation and decreased overall cost of capital.
- b) Optimum valuation and optimal overall cost of capital.
- c) Declined valuation and increases cost of capital.

The overall effect of these three stages is to suggest that the cost of capital is a function of leverage, i.e. first falling and after reaching minimum point or range it would start rising. The relation between cost of capital and leverage is graphically shown in figure below.

Figure 2.1 Cost of Capital & Leverage under Traditional Approach

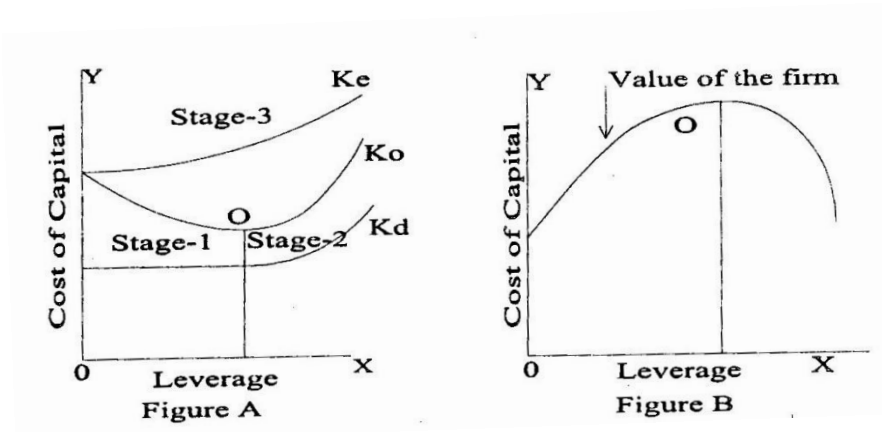


Figure 2.1 A shows the cost of equity (K_e) increases with increase in leverage but much more rapidly than the cost of debt. The cost of debt will remain fixed as leverage increases, until a point is reached where lenders feel that the firm is becoming financially risky. At this point, the cost of debt (K_d) will increase. The overall cost is optimal at point O and then after K_o is increasing upward. In figure 2.1 B, the firm value is optimal up to the point O and then after the value declines.

Hence in this traditional approach, the overall effect of these three stages is to suggest that the cost of capital is a function of leverage, i.e. first falling and after reaching minimum point or range it would start rising.

2. Net Income Approach:

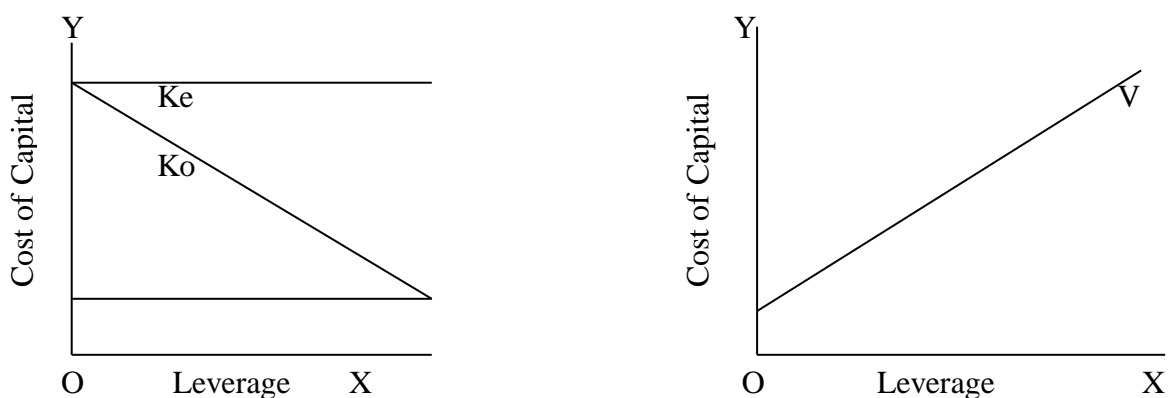
Net Income theory was introduced by David Durand. According to this approach, the capital structure decision is relevant to the valuation of the firm. This means that a change in the financial leverage will automatically lead to a corresponding change in the overall cost of capital as well as the total value of the firm. According to NI approach, if the financial leverage increases, the weighted average cost of capital decreases and the value of the firm and the market price of the equity shares increases. Similarly, if the financial leverage decreases, the weighted average cost of capital increases and the value of the firm and the market price of the equity shares decreases.

Assumptions of NI approach:

- There are no taxes
- The cost of debt is less than the cost of equity.
- The use of debt does not change the risk perception of the investors

From above assumptions, if K_e and K_d are constant, increased use of debt by increasing the shareholder earning will result in higher value of the firm via higher value of equity. Consequently the overall the cost (K_o) will decrease.

Figure 2.2 Cost of Capital & Leverage under NI Approach



In figure no. 2.2, x-axis called of leverage and y-axis called cost of capital. Under NI approach, K_e and K_d are assumed as constant. As the proportion of debt is increased in the capital structure, being less costly, it causes weighted average cost of capital to

decrease as it approach the cost of debt. The optimal capital structure would occur at the point where the value of the firm is maximum and overall cost of capital is minimum. Since, $K_o = K_e - (K_e - K_d) B/V$, and K_e and K_d are constants and K_d is less than the K_e , so K_o decreases if B/V increases.

3. Net Operating Income Approach:

Net Operating Income Approach was also suggested by Durand. This approach is of the opposite view of Net Income approach. This approach suggests that the capital structure decision of a firm is irrelevant and that any change in the leverage or debt will not result in a change in the total value of the firm as well as the market price of its shares. This approach also says that the overall cost of capital is independent of the degree of leverage.

Features of NOI approach:

- At all degrees of leverage (debt), the overall capitalization rate would remain constant. For a given level of Earnings before Interest and Taxes (EBIT), the value of a firm would be equal to EBIT/overall capitalization rate.
- The value of equity of a firm can be determined by subtracting the value of debt from the total value of the firm. This can be denoted as follows:

Value of Equity = Total value of the firm - Value of debt

- Cost of equity increases with every increase in debt and the weighted average cost of capital (WACC) remains constant. When the debt content in the capital structure increases, it increases the risk of the firm as well as its shareholders. To compensate for the higher risk involved in investing in highly levered company, equity holders naturally expect higher returns which in turn increases the cost of equity capital.

This theory can be explained in the following figure no. 2.3:

Figure 2.3 Cost of Capital & Leverage under NOI Approach

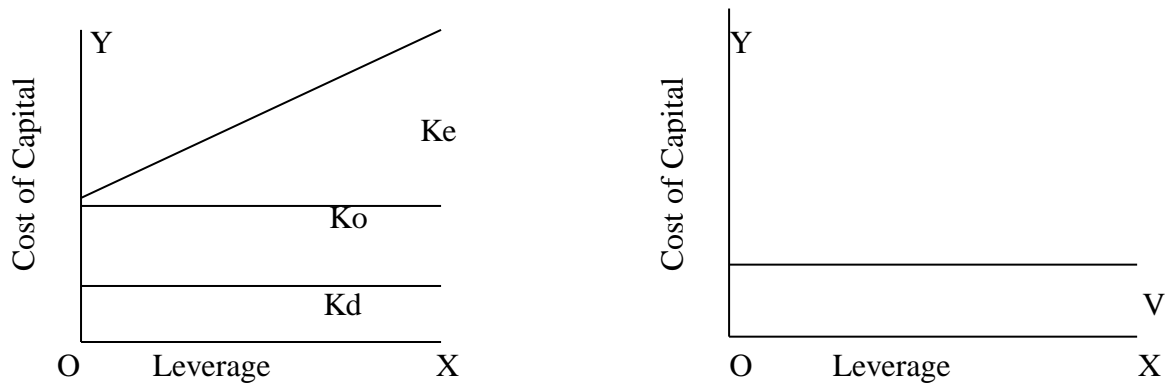


Figure no. 2.3 shows that K_o and K_d remain constant and K_e continuously increases with the degree of increase in the leverage. The NOI approach implies that there is no one optimum capital structure.

The cost of equity capital is given by:

$$K_e = K_o + (K_o + K_d) B/S$$

4. Modigliani Millar Approach:

Modigliani Millar approach, popularly known as the MM approach is similar to the Net operating income approach. The MM approach favors the Net operating income approach and agrees with the fact that the cost of capital is independent of the degree of leverage and at any mix of debt-equity proportions. The significance of this MM approach is that it provides operational or behavioral justification for constant cost of capital at any degree of leverage. Whereas, the net operating income approach does not provide operational justification for independence of the company's cost of capital.

Assumptions of MM approach:

- Capital markets are perfect.
- All investors have the same expectation of the company's net operating income for the purpose of evaluating the value of the firm.

- Within similar operating environments, the business risk is equal among all firms.
- 100% dividend payout ratio.
- An assumption of "no taxes" was there earlier, which has been removed.

Terminology and notation in used in MM Model are given below:

Terminology

- Levered: - A firm that uses debt and equity in its capital structure is called levered firm.
- Unlevered: - A firm that uses only equity in capital structure is called unlevered firm.
- Risk premium: - It is the expected additional return required by the equity holders for making a risky investment.

Notation

K_s = Equity capitalization rate of an unlevered firm.

K_{el} = Equity capitalization rate of a levered firm.

K_d = Debt capitalization rate.

K_{ou} = Overall capitalization rate of unlevered firm.

V_u = Value of an unlevered firm.

V_l = Value of a levered firm.

T = Corporate tax-rate.

BT = Present value of tax-shield benefits of debt/ PV of interest tax-shield

MM theory can be divided into:

a) Without Taxes:

Proposition I

In this proposition, the overall cost of capital (K_o) and the value of the firm (V) are independent of its capital structure. The K_o and V are constant for all degree of leverage. The total value is given by capitalizing the expected stream of operating earnings at a discount rate appropriate for its risk class. This proposition can be expressed as below:

For levered firm, $V = \text{EBIT (NOI)}/K_o$

For unlevered firm, $K_o = K_e$

So $V_o = \text{NOI}/K_{ou} = \text{NOI}/K_{eu}$

From the above proposition, MM theory conclude that the total market value of the firm is unaffected by financing mix. It follows that the cost capital is independent of the capital structure.

This proposition states about the implication of propositions for investment decision-making. It emphasizes the point that investment and financing decisions are independent because the average cost of capital is not affected by the financing decision.

Proposition II

This proposition states that the K_e is equal to the capitalization rate of a pure equity stream plus a premium for financial risk equal to the difference between the pure equity capitalization rates (K_e) and (K_d) times the ratio of debt to equity. In other words, K_e increases in a manner to offset exactly the use of a less expensive source of funds represented by debt. The cost of equity capital for levered firm (K_{el}) is equal to the cost of equity of an unleveled firm (K_{eu}) plus a risk premium equal to the difference between K_{eu} and K_d multiplied by the debt equity ratio.

$$K_{el} = K_{eu} + (K_{eu} - K_d) B/S$$

Since $K_{eu} = K_{ou}$ So, $K_{el} = K_{ou} + (K_{ou} - K_d) B/S$

This proposition shows the impact of financial leverage on the cost of equity. Due to increases in leverage, the firm gets the benefits of cheaper debt but the benefit is exactly offset by increases in the cost equity in the form of risk premium demanded by shareholder.

b) With Taxes:

This hypothesis states that the value of the firm is independent of its debt. In reality, corporate income taxes exist, and interest paid to debt holders is treated as deductible expenses. Dividends paid to shareholders on the hand, are not tax deductibles.

The value of the levered firm is equal to the value the unlevered firm plus the present value of the interest tax-shield as shown below:

Value of a levered firm = Value of an unlevered firm + PV of interest tax-shield.

$$\text{i.e. } V_l = V_u + BT$$

We know, the value of an unlevered firm when corporate taxes exist is given by

$$V_u = \frac{NOI(1-T)}{K_{ou}} = \frac{NI}{K_{eu}}$$

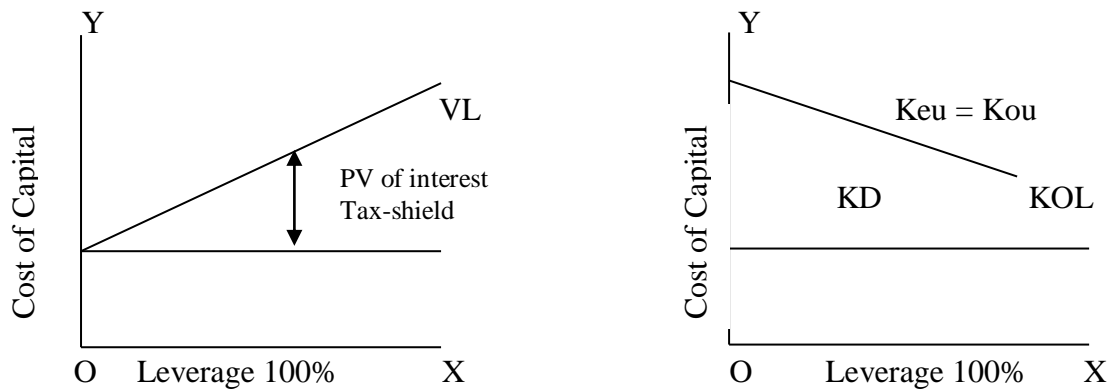
Where NI = Net income after taxes.

Also when a firm is unlevered, $K_{ou} = K_{eu}$

$$\text{Thus } V_l = \frac{NI}{K_{eu}} + BT$$

The above equation implies that when the corporate tax rate T is positive ($T > 0$), the value of the levered firm will increase continuously with debt. Thus, theoretically the value of the firm will be maximum when it employs 100% debt.

Figure 2.4 Cost of Capital & Leverage under MM Approach



The figure no. 2.4 shows that a firm can increase its value or lower its cost of capital continuously with leverage because of the tax deductibility of interest charges. Thus the optimal capital structure is reached when the firm employs 100% debt. In practice, firms neither employ large amount of debt nor lenders are ready to lend beyond certain limits.

"Why does company not employ extreme level of debt in practice? There could be two possibilities: First, we need to consider the impact of both corporate and personal taxes for corporate borrowing. Personal income tax may offset the advantages of the interest tax-shield. Second, borrowing may involve extra costs (in addition to contractual interest cost) of financial distress, which may also offset the advantage of the interest shield." (Pandey; 2003)

2.1.5 Determinants of Capital Structure:

Capital structure of a firm is determined by various internal and external factors. The macro variables of the economy of a country like tax policy of government, inflation rate, capital market condition, are the major external factors that affect the capital structure of a firm. The characteristics of an individual firm, which are termed here as micro factors (internal), also affect the capital structure of enterprises. (Baral, 2004)

1. Size of a Firm

The bankruptcy cost theory explains the positive relation between the capital structure and size of a firm. The bankruptcy cost theory suggests the lower bankruptcy costs, the higher debt level.

2. Growth Rate

The agency cost theory and pecking order theory explain the contradictory relation between the growth rate and capital structure. Agency cost theory suggests that equity controlled firms have a tendency to invest sub-optimally to expropriate wealth from the enterprises' bondholders. The agency cost is likely to be higher for enterprises in growing industries which have more flexibility in their choice of future investment. Hence, growth rate is negatively related with long-term debt. Pecking order theory, contrary to the agency cost theory, shows the positive relation between the growth rate and debt level of enterprises. This is based on the reasoning that a higher growth rate implies a higher demand for funds, and, ceteris paribus, a greater reliance on external financing through the preferred source of debt.

3. Business Risk

Both agency and bankruptcy cost theories suggest the negative relation between the capital structure and business risk. The bankruptcy cost theory contends that the less stable earnings of the enterprises, the greater is the chance of business failure and the greater will be the weight of bankruptcy costs on enterprise financing decisions. Similarly, as the probability of bankruptcy increases, the agency problems related to debt become more aggravating. Thus, this theory suggests that as business risk increases, the debt level in capital structure of the enterprises should increase.

4. Profitability

The static trade-off hypothesis pleads for the low level of debt capital of risky firms (*Myers; 1984*). The higher profitability of firms implies higher debt capacity and less risky to the debt holders. So, as per this theory, capital structure and profitability are positively associated. But pecking order theory suggests that this relation is negative. Since, firm prefers internal financing and follows the sticky dividend policy. If the

internal funds are not enough to finance financial requirements of the firm, it prefers debt financing to equity financing.. Thus, the higher profitability of the enterprise implies the internal financing of investment and less reliance on debt financing.

5. Dividend Payout

The bankruptcy costs theory pleads for adverse relation between the dividend payout ratio and debt level in capital structure. The low dividend payout ratio means increase in the equity base for debt capital and low probability of going into liquidation. As a result of low probability of bankruptcy, the bankruptcy cost is low. According to the bankruptcy cost theory, the low bankruptcy cost implies the high level of debt in the capital structure. But the pecking order theory shows the positive relation between debt level and dividend payout ratio. According to this theory, management prefers the internal financing to external one. Instead of distributing the high dividend, and meeting the financial need from debt capital, management retains the earnings. Hence, the lower dividend payout ratio means the lower level of debt in capital structure.

6. Debt Service Capacity

The higher debt level in capital structure increases the probability of bankruptcy and bankruptcy costs of the enterprises. Probability of bankruptcy refers to the chances of cash flows to be less than the amount required for servicing the debt. The debt service ratio measured by the ratio of operating income to total interest charges indicates the firms' ability to meet its interest payment out of its annual operating earnings. Therefore, the higher debt service ratio shows the higher debt capacity of the enterprises.

7. Operating Leverage

The use of fixed cost in production process also affects the capital structure. The high operating leverage-use of higher proportion of fixed cost in the total costs over a period of time-can magnify the variability in future earnings. Both the bankruptcy cost theory and agency cost theory suggest the negative relation between operating leverage and debt level in capital structure. The bankruptcy cost theory contends the higher operating leverage, the greater the chance of business failure and the greater will be the weight of bankruptcy costs on enterprise financing decisions. Thus, these

theories suggest that as operating leverage increases, the debt level in capital structure of the enterprises should decrease. (Baral, 2004)

2.1.6 Approaches for determining Appropriate Capital Structure:

Features of an Appropriate Capital Structure

- 1) Return-** The capital structure of the company should be most advantageous subject to other considerations it should generate maximum returns to the shareholders without adding cost to them.
- 2) Risk-** The use of excessive debt threatens the solvency of the company. To the point debt does not add significant risk it should be used otherwise its use should be avoided.
- 3) Flexibility-** The capital structure should be possible for a company to adapt its capital structure with a minimum cost and delay if warranted by a changed situation. It should also be possible for the company to provide funds whenever needed to finance its profitable activities.
- 4) Capacity-** The capital structure should be determined within the debt capacity of the company, and this capacity should not be exceeded. The debt capacity of a company depends on its ability to generate future cash flows. It should have enough cash to pay creditor's fixed charges and principle sum.
- 5) Control-** The capital structure should involve minimum risk of loss of control of the company. The owner's of closely-held companies are particularly concerned about dilution of control.

Approaches to establish appropriate Capital Structure

The following are the 3 most common approaches to decide about a firm's capital structure:

- 1. EBIT-EPS approaches-** The EBIT-EPS analysis is an important tool in the hands of the financial manager to get an insight into the firm's capital structure management. He can consider the possible fluctuations in the EBIT and examine their impact on EPS under different financial plans. If the

probability of earning a rate of return on the firm's assets less than the cost of debt is insignificant, a large amount of debt can be used by the firm to increase the earnings per share. This may have a favourable effect on the market value per share. On the other hand, if the probability of earning a rate of return on the firm's less than the cost of debt is very high, the firm should refrain from employing debt capital. It may, thus, be concluded that the greater level of EBIT & lower the probability of downward fluctuation, the more beneficial is to employ debt in the capital structure. However, it should be realised that the EBIT-EPS is a first step in deciding about a firm's capital structure.

- 2. Cost of Capital and Valuation Approach-** The cost of a source of finance is the minimum return expected by its suppliers. The expected return depends on the degree of risk assumed by investors. A high degree of risk is assumed by the shareholders than the debt-holders. In case of debt-holders, the rate of interest is fixed and the company is legally bound to pay interest whether it makes profits or not. The loan of debt-holders is returned within a prescribed period, while shareholders will have to share the residue only when the company is wound up. This leads one to conclude that debt is a cheaper source of funds than equity. The preference share capital is also cheaper than equity capital, but not as cheap as debt.

- 3. Cash Flow Approach-** One of a feature of a sound capital structure is conservatism. Conservatism does not mean employing no debt or small amount of debt. Conservatism is created by the use of debt or preference capital in the capital structure and the firm's ability to generate cash to meet these fixed charges. The fixed charges of a company include payment of interest, preference dividends, and the principal, and they depend on both the amount of loan securities and the terms of payment. The amount of fixed charges will be high if employs a large amount of debt or preference capital with short-term maturity. The company expecting larger & stable cash inflows in the future can employ a large amount of debt in their capital structure.

One important ratio which should be examined at the time of planning the capital structure is the ratio of net cash inflows to fixed charges (debt- servicing ratio). It indicates the number of times the fixed financial obligations are covered by the net

cash inflows generated by the company. The greater the coverage, the greater is the amount of debt a company can use.

2.2 Review of Related Journals and articles

a) **Modigliani and Miller (1958)** has studied the cost of capital, corporation and theory of the investment. The study showed that the impact of additional debt in a tax less and economically, perfect, world the total market value of company's debt plus equity should not change as debt is substituted for equity. Although expected earning per share will increase as debt is substituted for equity (or additional financing is done with debt rather than equity). This effect is exactly offset by a markdown in the company's price/earning ratio. The markdown occurs because the additional debt exposes the common shareholder to an extra financial risk.

b) **Gajurel (2005)** studied Capital Structure Management in Nepalese Enterprises and has recommended following:

- Before designing capital structure of any company, a careful attention should be paid on appropriate features of capital structure and various determinants of capital structure. It is observed that more executives or practitioners do not pay attention to their capital structure.
- Capital structure of the firm should be compared to similar other firms or with industry debt. HMG should come up with the policy of industry data or debt ratios. It will enable the firm to compare with industry data.
- One can increase the sample size to obtain more reliable and valid conclusions. Also, a study extending the survey regarding optimal capital structure is anticipated.
- A study similar to this should be conducted from time to time. The long-term stability of results needs to be reviewed from time to time. Also, the determinants of capital structure may vary from one period to another period, from one firm to another firm and from one industry to another industry. Hence, a study of capital structure determinants in individual firm, particular industry should be conducted.
- There are different measures of leverage; one can use those different alternative measures of leverage to test the results.

- Cost of capital is another important aspect of capital structure. One can along study the effect of cost of capital.

c) **Ali (2011)** studied Practical Implication of Capital Structure Theories: Empirical Evidence from Banks of Pakistan and finds that Banking sector of Pakistan offer a number of financial facilities to corporate and individual users. Along with its number of financial products and services banking sector of Pakistan is often considered as the backbone of the economy. He suggests that mainly two directions can be explored within future research. First is to testify the implication of capital structure theory across different industries. Secondly, cross-sectional study can be attributed on the financial and non-financial industries in the economic segment of Pakistan.

2.3 Review of Thesis:

Various Students under MBS program have carried out several thesis related to this thesis, which were also studied and reviewed. They were as follows:

Gurung, (2003) conducted the study on "*Analysis of capital structure in selected joint banks of Nepal*" with the following objectives:

- a) To find out the profitability of the banks in respect to its capital structure.
- b) To determine the interest burden of debts over the banks.
- c) To examine the efficiency of working capital of the joint venture banks.

The major findings of the study were as follows:

- a) The utilization of total assets is not adequate to generate earning.
- b) The banks using more debt capital to procure total assets.
- c) The profitability situation of the banks is poor due to nominal return rate.

The following recommendations were made :

- a) The banks should have more unfavorable debt and should procure debt capital by reliable sources to reduce a great interest payment.
- b) The banks should try to determine its cost of capital to identify the existing capital structure of the company.
- c) The banks should operate in its full capacity to meet the target.

Sharma (2004) conducted a study on "*A comparative case study between Nepal Bangladesh Bank and Himalayan Bank Ltd.*" with the following objectives:

- a) To determine the comparative position of capital structure of these two banks and provides suggestive framework issue relating to capital structure management.
- b) To examine the cost of capital especially cost of debt.
- c) To find out the investment of the raised capital.

The major findings of the study were as follows:

- a) Debt capital of the banks and interest burden as well is too high.
- b) High operating cost and low return on equity.
- c) More concentration and investment of NBBL only in the area of loan and advance.
- d) Less utilization of value of the firm of NBBL.

The following recommendations were made :

- a) The bank's capital structure should be restructured by increasing equity capital and decreasing debt capital.
- b) The debt capital should be issued in low interest rate to reduce the interest burden of the banks.

- c) Investment should also be made in the sector of commission base so that investment risk could be minimized.
- d) Operating expenses should decrease to increase the profit.

Sthapit (2007) conducted a study on "*A study of Capital Structure Management of Commercial Banks- Nabil Bank Ltd. and Himalayan Bank Ltd.*" with the following objectives:

- a) To find out comparative position in capital structure between NBL and HBL.
- b) To examine the correlation and the significance of their relationship between different ratios related to capital structure.
- c) To analyze the relationship of debt and total capital.
- d) To analyze the profitability position of NBL and HBL

The major findings of the study were as follows:

- a) NBL shows higher value and lower capitalization rate hence maintain optimum capital structure than HBL. .
- b) NBL has optimum capital structure compared to HBL.
- c) HBL bearing high financial risk because it has used long term debt,. NBL has employed less long term debt so it has lesser financial risk.
- d) HBL has to increase in Return on equity in next year to get rid of constant ratio.

The following recommendations were made:

- a) Both Banks should raise their debt ratio.
- b) Both banks can increase return by using less cost debts, improving strategies by promotional activities, etc.
- c) Both banks are recommended to plan their capital structure well by analyzing possible financial alternatives.

Acharya, (2009) conducted a study on "*A comparative study of capital structure management between Kumari Bank Ltd. and Siddhartha Bank Ltd.*" with the following objectives :

- a) To find out comparative position in capital structure between two banks.
- b) To analyze the various source of capital and their cost.
- c) To highlight the relationship between operating profit and interest expenses to measure the debt service capacity of the banks.
- d) To analyze the return on capital in relation to capital employed.
- e) To study capital structure & adequacy ratio.

The major findings of the study were as follows:

- a) The shareholder's equity of both the banks is in increasing trend during the entire study period..
- b) Higher overall capitalization rate of KBL is more capable to utilize the value of the firm compare to SBL.
- c) KBL is more capable to utilize its long term capital
- d) Debt equity ratio of both banks is significant in generating more return on equity.

The following recommendations were made:

- a) To increase the EBIT it is recommended to increase the commission base business of the banks.
- b) The organizations should focus more on optimal capital structure rather than increasing debt portion or equity.
- c) Banks should reduce the high use of debt capital.

Research Gap:

Most of the studies as cited above have been conducted in various banks and firms, which indicates that a sound principle of capital structure and its management haven't been followed by the enterprises in Nepal. Their study reveals that they have not been using long term debt effectively. The net worth of the bank was used in unproductive assets, shows low debt equity ratio. The research gap among the previous studies and this current study lies firstly in fiscal years and in the sample banks. The two banks studied in this thesis are the first two joint venture commercial banks of nepaland thus it is believed that the study conducted on these two banks will provide most accurate situation of capital structure management in Nepalese commercial banks. This study will therefore be helpful to interested groups and concerned parties.

CHAPTER - III

RESEARCH METHODOLOGY

Research Methodology is the way to solve the research problem systematically. It is composed of two words "Research & Methodology ". The entire process by which we attempt to solve problems is called research. While methodology is the method used to list the hypothesis. So, Research Methodology is the process of investigating with a series of well thought activities in gathering, recording, analyzing & interpreting the data with the purpose of finding answers to the problem.

3.1 Research design :

The word " Research " is derived from French word " Researcher " which means seek again. Therefore, in this thesis, research is to seek and compare the concern banks for the case study. The research is designed as per objectives of the study. To fulfill the objectives of the study certain research design is essential. To fulfill the objectives of the study, descriptive cum analytical research design is necessary.

3.2 Period covered :

For this study, five years of data from fiscal year 2006/ 07 to 2010/2011, of Nabil Bank Ltd. and Nepal Investment Bank Ltd. have been collected. Nabil Bank Ltd. was established in 2041 B.S. and Nepal Investment Bank Ltd. Was established in 2042 B.S. Long period has been passed after the establishment of the bank but due to unavailability of data as well as various constraints only five years has been considered for the study.

3.3 Sources & Types of Data :

This study is based on "Secondary data ". This secondary data are extensively used in this study. The raw secondary data are modified to some extent for the study purpose.

Mostly the data are collected from the balance sheet, income statement & profit & loss account of Nabil Bank Ltd. and Nepal Investment Bank Ltd. Some other necessary data used in this study have also been supplemented from Nepal stock exchange ltd. and various related journals in management and other publication, as well as from the two banks' official web-sites.

3.4 Required Tools for Analysis :

Types of research or analysis tools depend upon the nature of research being done and the problem itself. Tools have been selected according to the nature of data as well as subject matter. The major tools employed in this study for the analysis of the data are the ratio analysis, which establish the quantitative or numerical relationship between two variables of the financial statement. Beside this statistical tools are also used. The basic tools used are as follows:

a) Accounting Tools

Ratio Analysis

Ratio is the numerical relationship between two variables. It is generally expressed in percentage. It is obtained by dividing one variable to another variable and multiplied by 100.

b) Statistical Tools

The statistical tools applied in this study are expected rate of return, standard deviation, coefficient of variation, Kari Pearson's coefficient of correlation and student's t-test. This research is related to financial subject matter so statistical tools and formulae are expressed in financial terms except correlation coefficient, coefficient of (multiple) determination (r^2) and student's t-test. Due to the most used of average and standard deviation in financial sector also the researcher has used the financial for these statistical tools.

i. Expected rate of return or average rate of return

Expected rate of return is the most popular and widely used measure of representing the entire data by on value called average. Expected rate of return

has been used to compute the average rate of return of the variable of the selected two banks. It is the sum of multiply of the variables with their respective probability distribution.

Symbolically,

Expected rate of return, $\bar{X} = \sum X/n$

Where, X = Variables

n = Number of variables.

ii. Standard Deviation

The standard deviation measures the absolute value of risk, i.e., variability of the returns from the means returns. It is also known as root mean square deviation for the reason that it is the square root of the squared deviation from arithmetic mean. Symbolically,

Standard Deviation, $\sigma = \sqrt{(\sum X^2/n - \bar{X}^2)}$

Where, X = Variables

n = Number of variables.

\bar{X} = Expected rate of return or average rate of return.

iii. Coefficient of Variation

As noted above, the standard deviation is the absolute measure of risk. In the case of the different mean returns, it misleads to the invalid decision. Hence, to overcome on such a problem, a standardized per unit risk can be used to measure the risk which is called coefficient of variation. It indicates risk per unit of average return. Variability in return (i.e. the risk) has therefore been measured by the coefficient of variation. In this study, coefficient of variation has been computed to show the bank wise variability or risk return relationship in respect of interest rate and rate of return on total investments. It can be computed by dividing the standard deviation by average rate of return.

Symbolically,

Coefficient of variation, C.V. = σ / \bar{X}

Where, σ = Standard deviation

\bar{X} = Mean rate of return.

iv. Karl Pearson's Correlation Coefficient

In simple correlation gives the relation between two variables. In other words, correlation is defined as the relationship (or association) between (among) the one dependent variable or factor and other (or more than one) independent variables(s) or factor(s). Thus, correlation is a statistical tool which determines the degree (extent) and direction of correlation. It helps in studying the variance of two or more variables. There is several method of analyzing the correlation between the two variables such as Graphic Method, Least Square Method and so on. Among them, Karl Pearson's Coefficient of Correlation is most widely used in order to establish the relationship between the returns of NIBL and HBL. Karl pearson's Coefficient measures the degree of association between the two variables, say X and Y, and is denoted by

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

Where, r = coefficient of correlation between X and Y (i.e. r_{xy})

$$x = X - \bar{X} \text{ and } y = Y - \bar{Y}$$

$\sum xy$ = summation of multiple of mean deviation of variables X and Y.

$\sum x^2$ = summation of mean deviation square of variable X

$\sum y^2$ = summation of mean deviation square of variable Y

v Coefficient of determination (r^2)

The coefficient of determination is a measure of the degree of linear association or correlation between two variables one of which happens to be independent

and other being dependent variable(s). It measures the percentage total variation in dependent variables explained by independent variable(s) i.e. the extent of association between the two variables.

The coefficient of determination is defined by

$$r^2 = \frac{\text{Explained Variation}}{\text{Total Variation}}$$

The value of coefficient of (multiple) determination ranges from zero to one

vi Student's t-test

Decision making about the characteristics of the population on the basis of study of the sample taken from the population involves the risk of taking wrong decision. A hypothesis is an assumption that we make about the population parameter. The test of hypothesis is a process of testing of significance regarding the parameter of the population on the basis of the sample drawn from the population.

To test whether there is statistically significant correlation between the related variables of NIBL and HBL in terms of capital structure, profitability and associated risk, student's t-test has been computed by using following formula.

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{s^2 \{1/n_1 + 1/n_2\}}}$$

Where, t = student's t-test

X₁ and X₂ = expected or mean variables of NIBL & HBL

n₁ and n₂ = No. of observation for NIBL & HBL

$$s^2 = (\sum X_1^2 + \sum X_2^2) / (n_1 + n_2 - 2)$$

Tabulated value is based on n – 2 degree of freedom and 5% level of significance.

If the calculated value of t is less than the tabulated value of t at 5% level of significance and for the above mentioned degree of freedom, the null

hypothesis (H_0) is accepted and alternative hypothesis (H_1) is rejected. This implies that the value of r is significant i.e. there is statistically significant relationship between the variables or there is statistically significant difference between the average rate of returns of the variables and vice versa.

CHAPTER - IV

ANALYSIS AND INTERPRETATION OF DATA

The main focus of this investigation has been to analyze the capital structure of NABIL & NIBL. For this purpose four types of data regarding capital structure, profitability, market related ratio and statistical analyses of the two banks were collected. The statistical analyses of the data and obtained results have been reported in this chapter.

4.1 Analysis of Capital Structure

The capital structure of a bank has been analyzed incorporating the analysis of relationship between fixed deposits and shareholders equity, its composition and index, financial mix ratio and capitalization rate analysis.

4.1.1 Analysis of Fixed Deposit

The fixed deposit of bank is termed as long-term debt collected from customers, which a bank generally accepts for maximum period of two years.

Table: 4.1
Fixed Deposit Position and Index Table of NABIL & NIBL

(Rs.)

Fiscal Year	NABIL			NIBL		
	Fixed Deposit	Index p_1/p_0*100	% Change	Fixed Deposit	Index p_1/p_0*100	% Change
2006/07	5435189720	100		7516686866	100	-
2007/08	8464086113	155.73	55.73	7944232558	105.69	5.69
2008/09	8310708297	152.91	-1.81	11633380218	154.77	46.44
2009/10	14711158487	270.67	77.01	16825148284	223.84	44.63
2010/11	16840831154	309.85	14.48	18378300034	244.5	9.23
Average			36.35			26.50
Standard Deviation (S.D.)			36.35			22.04
Coefficient Of Variance (C.V.)			99.98			83.19

(Source: Annual Report of 2006/07 - 2010/11)

Figure: 4.1

Fixed Deposits of NABIL & NIBL

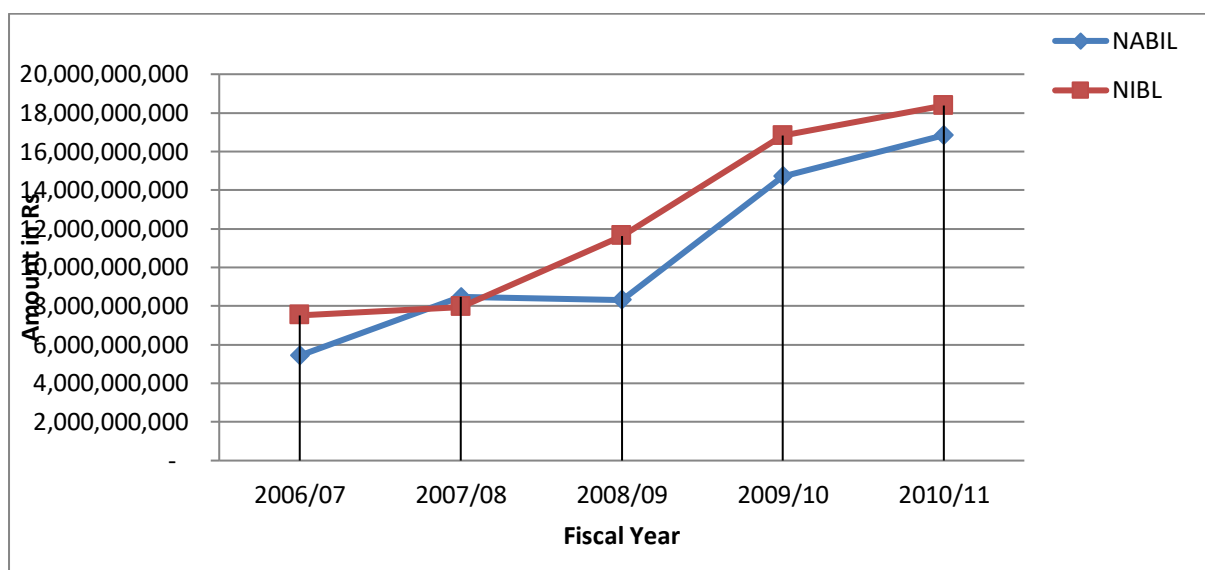


Table no. 4.1 and Figure no. 4.1 shows that fixed deposited of NABIL is increasing during every fiscal year except in F.Y. 2008/09. This shows that the bank is concentrating to increase fixed deposits in it financial mix or capital structure. The fixed deposit of NABIL is increased by 55.73% in F.Y. 2007/08 over the last F.Y. and decrease by 1.81% in F.Y. 2008/09. It is increasing by 77.01%, in F.Y. 2009/10, which is the highest increment over the past seven years. Again, It is increased by less percentage 14.48% in fiscal years 2010/11. Thus, the banks are giving more emphasis to increase importance to decrease fixed deposit in F.Y.2008/09. The index shows the fixed deposit is increased by 309.85% during the entire study period.

Similarly, fixed deposit of NIBL is increased by 5.69% in F.Y. 2006/07 and followed by 46.44% in 2007/08, which was the highest change though out the study period. It increased 44.63% in F.Y. 2009/10 and at last it was little bit increased 9.23% in F.Y 2010/11. The index shows that fixed deposit was increased by 244.5% during the entire study period.

In average, the fund collected in the firm of fixed deposits is more by NABIL (Av. = 36.35%) than NIBL (Av. = 26.50%). The variability of deposits is found more in NABIL (C.V. = 99.98) than NIBL (C.V. = 83.19). Both the banks were found increasing fixed deposits in its financial mix.

Table : 4.2

Fixed Deposit to Total Liability Ratio of NABIL & NIBL
(%)

Fiscal Year	NABIL	NIBL
	Ratio	Ratio
2006/07	19.94	27.24
2007/08	22.79	20.44
2008/09	18.95	21.95
2009/10	28.21	29.36
2010/11	28.97	31.49
Average	23.77	26.10
Standard Deviation (S.D.)	4.63	4.75
Coefficient Of Variance (C.V.)	19.46	18.21

(Source: Annual Report & appendix 1)

Figure: 4.2

Fixed Deposit to Total Liability Ratio of NABIL & NIBL

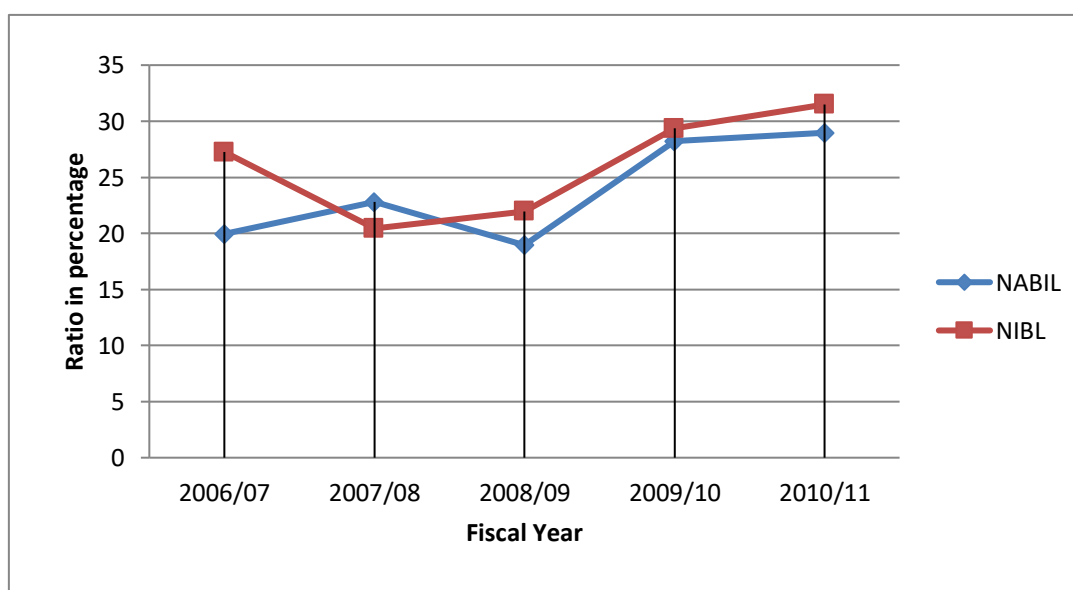


Table no. 4.2 and Figure 4.2 indicates that fixed deposit to total liabilities of NABIL is 19.94% in F.Y.2006/07It became 22.79% in F.Y. 2007/08. It is decreased in F.Y.

2008/09 and becomes 18.95 and recorded as the minimum throughout the study period. 2009/10 and 2010/11 by 28.21% and 21.97% respectively, which is the highest over the study period.

Similarly, fixed deposit to total liabilities of NIB is 27.24% in F.Y 2006/07. The minimum fixed deposit was 20.44% in F.Y. 2007/08 over the study period. It was increased in every F.Y. except in F.Y. 2007/08, where it was decreased by 20.44%. in F.Y 2010/11 it becomes 31.49, which is the highest fixed deposit portion in total asset over the study period.

The average value of NABIL is 24.67 and NIBL is 23.07. Thus, NABIL has higher portion of fixed deposited in total liabilities than of NIBL. Also fluctuation of the ratio was more NABIL (C.V. = 33.32%) than NIBL (C.V. = 20.15%).

4.1.2 Analysis of Shareholder's Equity

The shareholder's equity of a bank includes paid-up Capital and Reserve Funds, which are presented in following table.

Table: 4.3
Shareholders Equity Composition and Index Table of NABIL & NIBL
(Rs.)

Fiscal Year	NABIL			NIBL		
	Net Worth	Index $p_1/p_0 \times 100$	% Change	Net Worth	Index $p_1/p_0 \times 100$	% Change
2006/07	2057049715	100		1878123538	100	
2007/08	2437198989	118.48	18.48	2686786048	143.06	30.10
2008/09	3130240637	152.17	28.44	3907839708	208.07	45.45
2009/10	3834225929	186.39	22.49	4585393092	244.15	17.34
2010/11	4572056221	222.26	19.24	5159759697	274.73	12.53
Average			22.16			26.36
Standard Deviation (S.D.)			4.53			14.73
Coefficient Of Variance (C.V.)			20.45			55.90

(Source: Annual Report 2006/07 – 2010/11)

Figure: 4.3
Net Worth of NABIL & NIBL

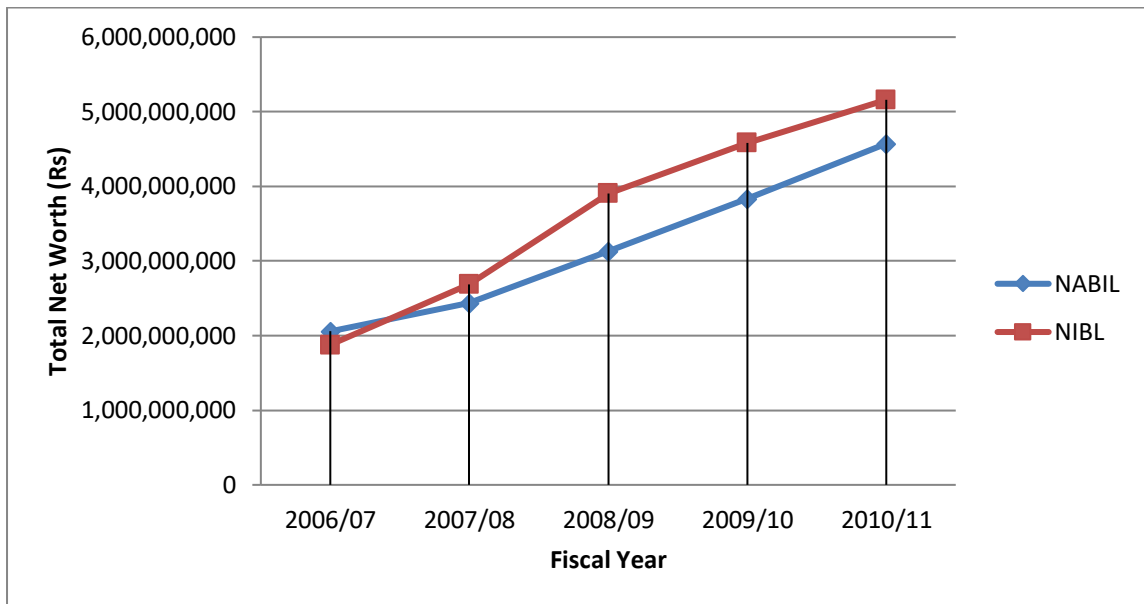


Table No. 4.3 and Figure no. 4.3 shows that shareholder's equity of both banks i.e. NABIL & NIBL was increasing during every fiscal year. The highest increment in the shareholder's equity of NABIL is 28.44% in FY2008/09 and that of NIBL is 45.45% in 2008/09. Similarly, the lowest increment in the equity of NABIL and NIBL are 18.48% in FY 2007/08 and 12.53% in FY2010/11 respectively. The average change in the equity of NABIL is a lower than 2007/08 & 2008/09 and highest in 2009/10 & 2010/11. The variability of equity was found more in NIBL (C.V. = 55.90%) than in NABIL (C.V. = 20.45) and average for NABIL is 22.16 and NIBL is 26.36.

Table : 4.4
Net Worth to Total Liabilities Ratio of NABIL & NIBL
 (%)

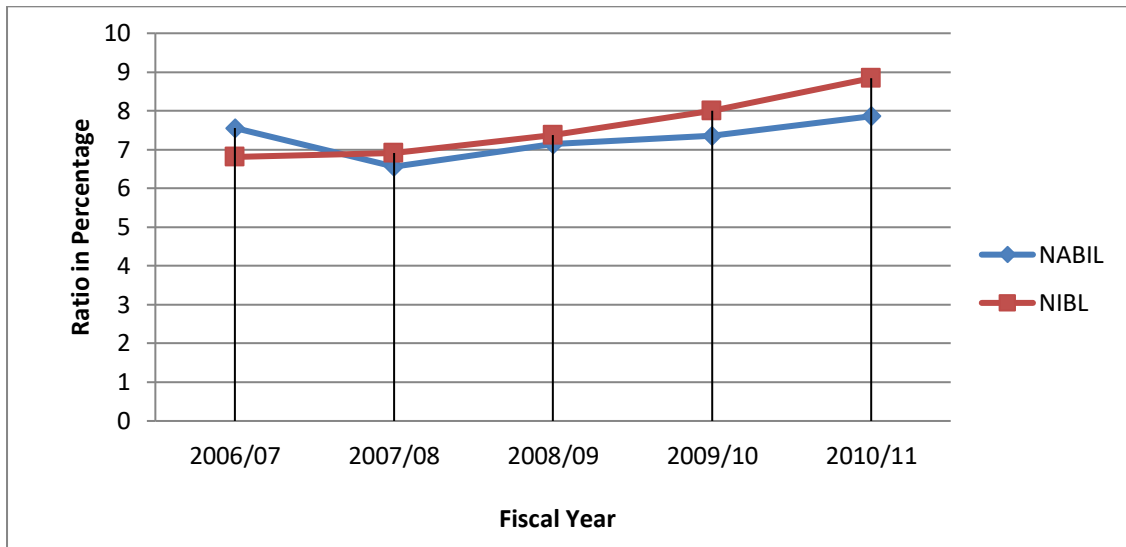
Fiscal Year	NABIL	NIBL
	Ratio	Ratio
2006/07	7.55	6.81
2007/08	6.56	6.91
2008/09	7.14	7.37
2009/10	7.35	8.00
2010/11	7.86	8.84
Average	7.29	7.59
Standard Deviation (S.D.)	0.49	0.85
Coefficient Of Variance (C.V.)	6.69	11.14

(Source: Annual Report & appendix 2)

Table No 4.4 and figure no 4.4 indicates that proportion of shareholder's equity i.e. net worth in total claims of assets (Total Liabilities) of NABIL and NIBL. The highest ratio NABIL is 7.86% in the FY 2010/11 and the lowest is 6.56% in the FY2007/08. Again, the highest ratio of NIBL is 8.84% in the FY 2010/11 and the lowest is 6.81% in FY 2006/07.

Thus, the proportion of shareholder's equity of NIBL is higher than that of NABIL except in 2006/07 And fluctuation of the proportion of shareholder's equity is more in NIBL (C.V. = 11.14%) than NABIL (C.V. = 6.69%). The average ratio of net worth to total asset of NIBL is 7.59% and NABIL is 7.29.

Figure: 4.4
Net Worth to Total Liabilities Ratio of NABIL & NIBL



4.1.3 Analysis of Debt to Equity Ratio

Debt is between borrowed funds and owner’s capital. This ratio reflects the relative claims of creditors and shareholders against the assets of the firm. The ratio is important tool to appraise the financial structure of the firm.

A higher ratio shows a large share of financing by the creditors relatively to the owners. So, there is a larger claim against the assets of the firm, which is the danger signal for the creditors. It would be risky for the creditors. A high proportion of debt in the financial structure would lead to inflexibility in the operations of the firm because the firm is legally liable to pay the interest even if the firm is having loss and a smaller ratio shows smaller claim of creditors. To the creditors, relatively high stake of the owners implies sufficient safety margin and substantial protection against shrinkage in assets.

Debt to equity has been calculated in following ways:

Debt to Equity Ratio in terms of Fixed Deposit to Net Worth

$$\text{DER} = \text{Fixed Deposit} / \text{Net Worth}$$

Table: 4.5
Debt to Equity Ratio of NABIL & NIBL

Fiscal Year	NABIL			NIBL		
	Fixed Deposit (Rs)	Net Worth (Rs.)	Ratio (%)	Fixed Deposit (Rs.)	Net Worth (Rs.)	Ratio (%)
2006/07	5435189720	2057049715	264	7516686866	1878123538	400
2007/08	8464086113	2437198989	347	7944232558	2686786048	296
2008/09	8310708297	3130240637	265	11633380218	3907839708	298
2009/10	14711158487	3834225929	385	16825148284	4585393092	367
2010/11	16840831154	4572056221	368	18378300034	5159759697	356
Average			325.80			343.40
Standard Deviation (S.D.)			57.56			45.35
Coefficient Of Variance (C.V.)			17.67			13.21

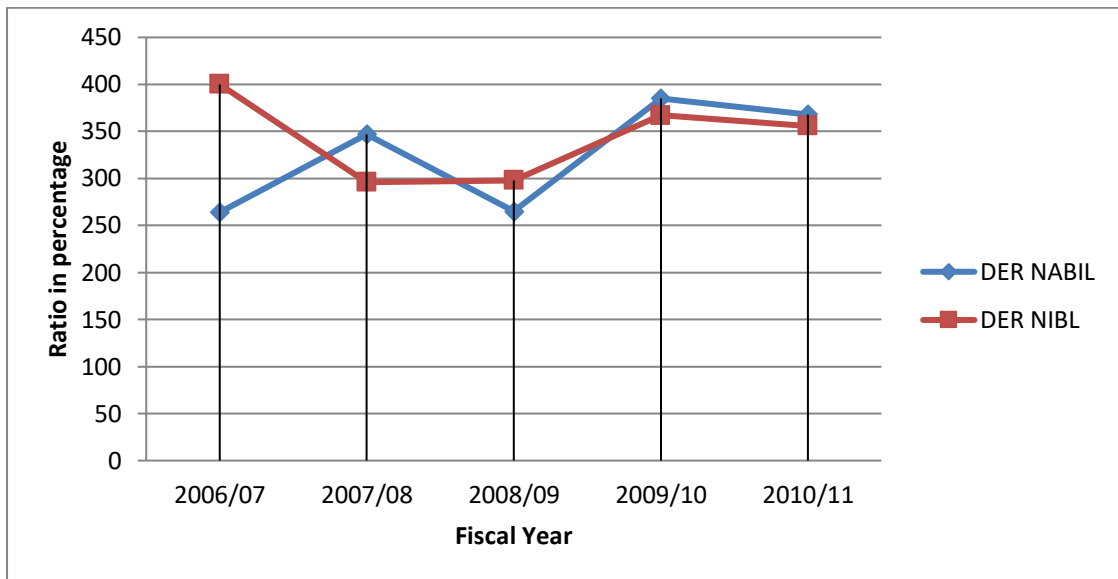
(Source: Annual Report 2006/07 to 2010/11)

The debt equity ratio is more significant to determine whether a fixed deposit is adequate to strengthen the profitability of the bank. Table no 4.5 reveal that both the banks have more DER i.e. greater claims of creditors than owner.

From Table no. 4.5 and Figure no. 4.5, DER of NABIL in the F.Y. 2009/10 is 385% i.e. the greatest portion of the fixed deposit. It is 264% in the F.Y. 2006/07 i.e. the lowest portion of the fixed deposit throughout the study period. Similarly, DER of NIBL in the F.Y. 2006/07 is 400%, i.e. the greatest portion of the fixed deposit. It is 296% in the F.Y. 2007/08 i.e. the lowest portion of the fixed deposit. The Average increment in the DER of NABIL is 325.80% and that of NIBL is 343.40% and C.V is 17.67 and 13.21 respectively.

Figure: 4.5

Debt to Equity Ratio of NABIL & NIBL



4.2 Market Related Ratios

In order to measure market performance of the banks, following market related ratios were computed.

- Earning per share
- Dividend per share
- Market Price per share
- Dividend payout ratio

4.2.1 Analysis of Earning Per Share (EPS)

The profitability of a bank is earning per share from the point of view of ordinary shareholders. The ratio explains net income for each unit of share. It gives the strength of the share in the market As EPS neither reveal how much dividend did not pay to the owners nor how much of the earnings retained by an organization. Thus, it only shows how much earning theoretically belongs to the ordinary shareholders. EPS can be calculated as below:

$$\text{EPS} = \text{Net Income} / \text{No. of share outstanding}$$

Table 4.6 shows that the EPS of NABIL is Rs137.08, 115.86, 113.44, 83.81 and 70.67 in FY 2006/07 to 2010/11 respectively. It is decreasing in each every year. Rs 137.08 is the highest and Rs 70.67 which is the least EPS of the bank during the study period. The average EPS of the bank is 104.17.

The EPS of NIBL are lower than NABIL of the study period. It is 62.57, 57.87, 37.42, 52.55 and 48.84 in FY 2006/07 to 2010/11 respectively. 62.57 recording as the highest over the study period. The least EPS of the bank is Rs 37.42 in FY 2008/09 making the average of 51.85 over the study period.

Table: 4.6
Analysis of EPS
(Rs.)

Year	NABIL	NIBL
2006/07	137.08	62.57
2007/08	115.86	57.87
2008/09	113.44	37.42
2009/10	83.81	52.55
2010/11	70.67	48.84
Mean	104.17	51.85
S.D	26.66	9.60
CV	25.59	18.52

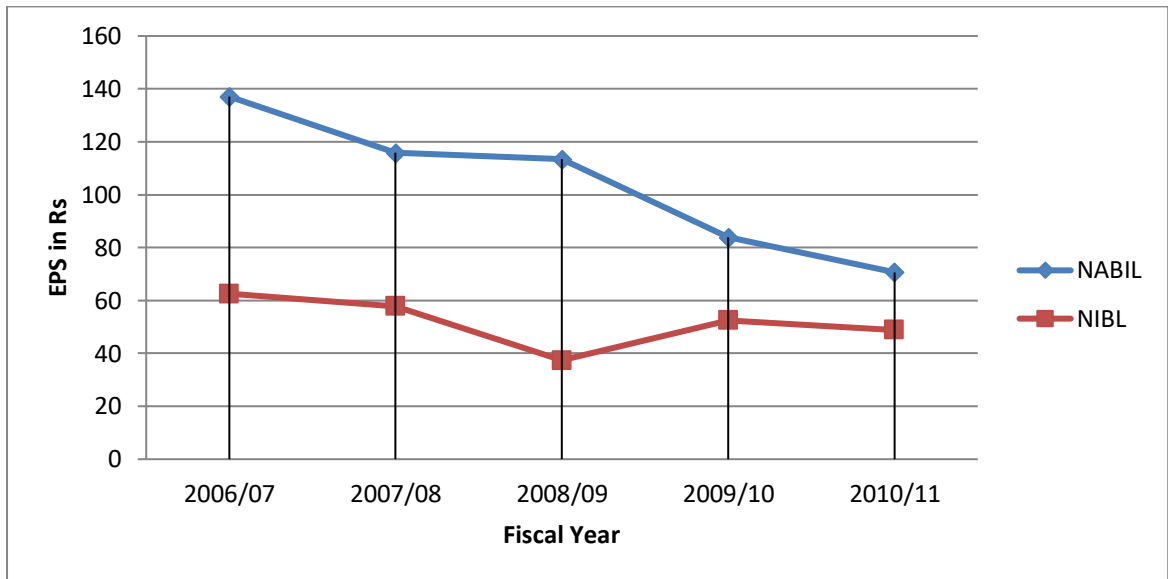
(Source: Annual report of NABIL & NIBL)

The coefficient of variation is lower in NIBL than NABIL ($18.52 < 25.59$). It means that there is little variation in EPS of NIBL than that of NABIL.

However, the EPS of NIBL is lower than NABIL. The number of share outstanding and low earnings in the middle fiscal years of the study period might be the

decreasing factor of EPS of NIBL. The average EPS of NABIL is better enough over NIBL, which increases the strength of the share and improves the market price of the share. Value of EPS are shown by following figure no. 4.6.

Figure: 4.6
EPS of NABIL & NIBL



4.2.2 Analysis of Dividend Per Share (DPS)

DPS is evaluated to know the share of dividend that the shareholders received in relation to paid up value of the share. A large number of present and potential investors may be interest in the dividend per share, rather than the earning per share. Therefore an institution offering a higher DPS is regarded as an efficient in fulfilling shareholders expectation, which will also enable to increase the value of an institution.

DPS is the earning distributed to ordinary shareholders divided by the number of ordinary shares outstanding i.e.

$$\text{DPS} = \text{Earning paid to SHS or Dividend} / \text{No. of ordinary shares.}$$

As DPS measures the capability to earn and distribute the profit, higher DPS have higher profitability and capacity to distribute dividend.

Table: 4.7
Analysis of DPS

(Rs)

Year	NABIL	NIBL
2006/07	100	5
2007/08	60	7.5
2008/09	35	20
2009/10	30	25
2010/11	30	25
Mean	51	16.5
S.D	30.08	9.62
CV	58.99	58.29

(Source: Annual report of NABIL & NIBL)

Figure: 4.7
DPS of NABIL & NIBL

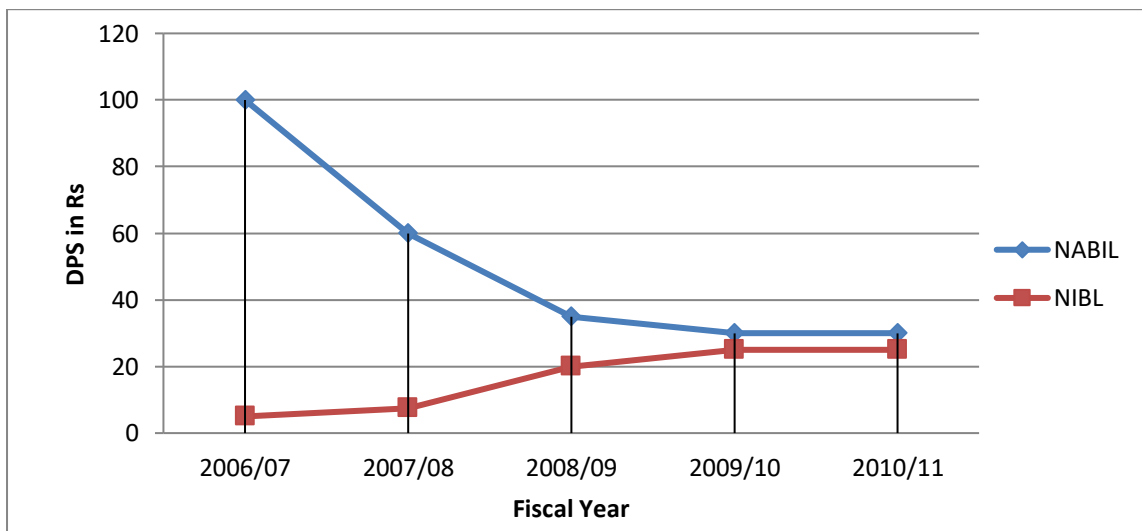


Table No. 4.7 and Figure no. 4.7 indicates that the DPS of NABIL is decreasing through out the study period but it remain constant in 2010/11. The decrease in DPS of the bank indicates that the bank has low earnings during those periods in

comparison to previous years. It is not declared in these years because of low profit. In average, the shareholders of the bank have received 51 as a cash dividend every year (except bonus share). The shareholders of the bank were not satisfied in term of low cash dividend distributed by the bank.

Again, the DPS of NIBL is increasing through out the study period but not meet to NABIL. It is 25 in FY 2010/11 recorded as the highest DPS over the study period. In average, the shareholders of the bank have received Rs 16.5 as a cash dividend every year.

The coefficient of variation is found as nearly the same NABIL than NIBL (58.99% < 58.29%). It means that there Is little variation in EPS of NABIL than that of NIBL. In comparison to NABIL, NIBL is found paying more DPS.

4.2.3 Analysis of Market price per Share (MPS)

Market price of share is that value of stock, which can be received by firm or equity holders selling it in capital market. The capital market determines MPS. In this analysis MPS represents the closing market price of NEPSE Index of the sample firms and Annual report of HBL and NABIL. The following table shows the market price of stock (MPS) of the sample banks:

Table: 4.8

Analysis of MPS

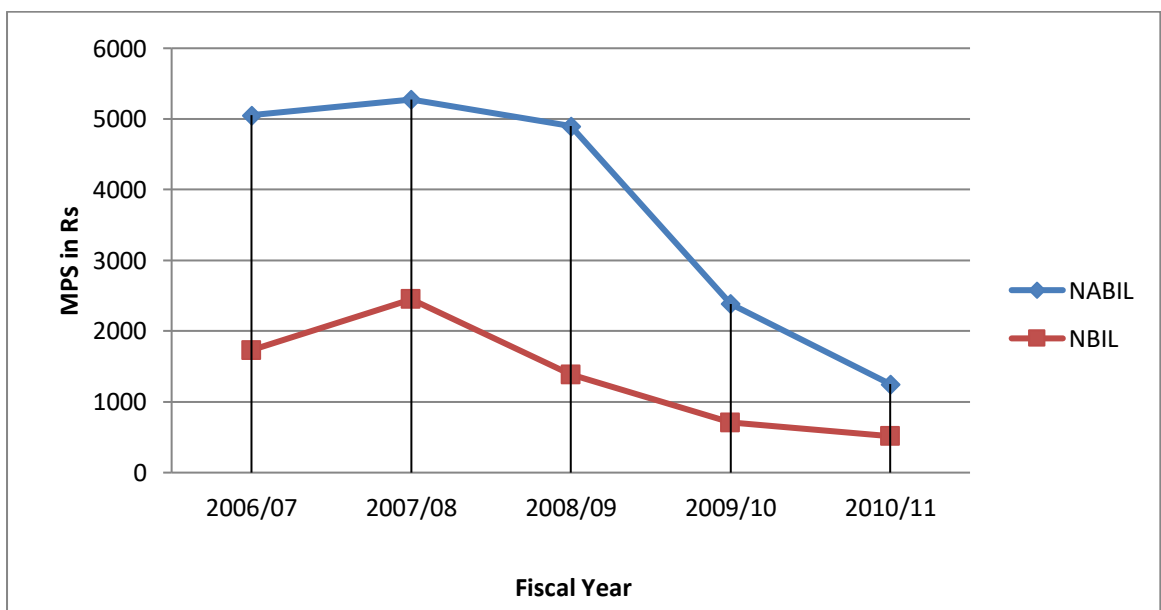
(Rs)

Year	NABIL	NBIL
2006/07	5050	1729
2007/08	5275	2450
2008/09	4899	1388
2009/10	2384	705
2010/11	1252	515
Mean	3772	1357.4
S.D	1832.99	785.50
CV	48.59	57.87

(Source: Annual Report of NABIL & NIBL)

Figure: 4.8

MPS of NABIL & NIBL



The Table no. 8 and Figure no. 8 shows that the average yearly MPS in NABIL and NIBL are Rs.3772 and Rs.1357.4 respectively. Among the selected banks, the NABIL shows the highest MPS in all study periods. The highest market price of NABIL is Rs. 5275 in the year 2007/08 and lowest is Rs. 1252 in year 2010/11. Its S.D is higher than the NIBL and CV is 48.59.

Similarly, the highest and lowest MPS of NIBL is Rs.2450 in 2007/08. These MPS of both sample banks are fluctuating trends and decreasing trend. Standard deviation of NIBL is 57.87. The CV of NABIL is less than NIBL. The higher C.V indicator the greater variability of MPS in the respective sectors. The MPS is highly affected by EPS and DPS.

4.2.4 Analysis of Dividend Payout (D/P) ratio

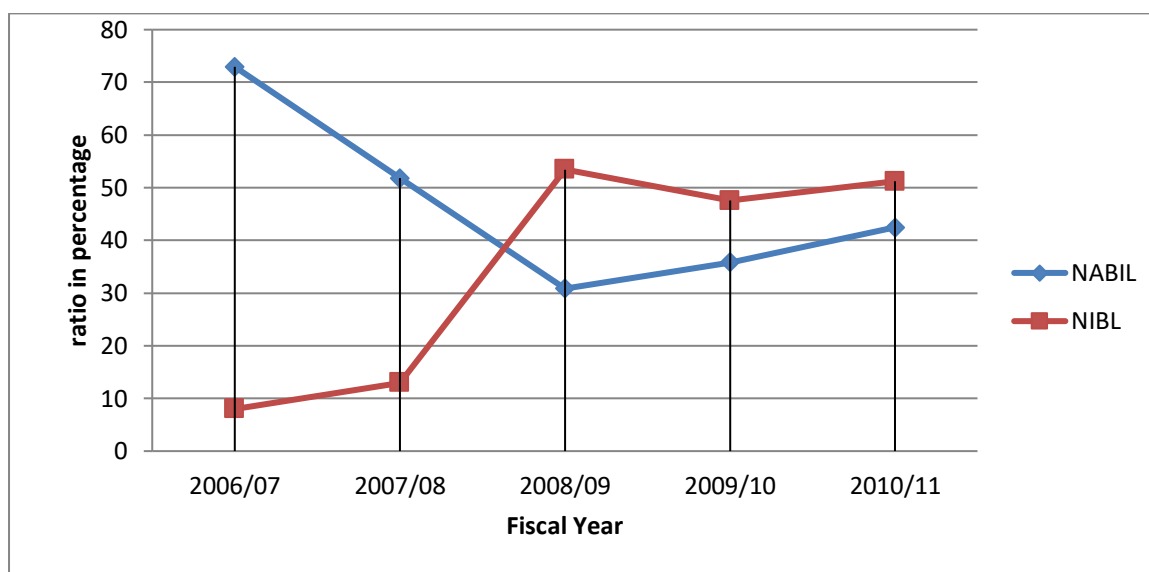
Dividend payout (D/P) ratio indicates that what percentage of actual earnings of a firm has been received by the ordinary shareholders. It is calculated by dividing the dividend per share to ordinary shareholders by the earning per share (EPS). The following table shows that dividend payout (D/P) ratio of sample Bank.

Table: 4.9
Analysis of D/P ratio

Year	NABIL	NIBL
2006/07	72.95	7.99
2007/08	51.79	12.96
2008/09	30.85	53.45
2009/10	35.80	47.57
2010/11	42.45	51.19
Mean	46.77	34.63
S.D	16.61	22.22
CV	35.51	64.16

(Source: Annual Report of HBL & NABIL)

Figure: 4.9
D/P Ratio of NABIL & NIBL



The comparisons of payout ratio reflect the management attitude towards the treatment of profit in respect to distribution of dividend and retained earnings.

Table no. 4.9 shows that the average dividend payout ratio of NABIL is 46.77%. However, the firm paid dividend regularly, this reflects the management has given more consideration to the payment in dividend. The highest payout ratio of NABIL is 72.95% in 2006/07 and lowest payout ratio is 30.85% in 2008/09. It shows that, the firm is not doing good performance.

NIBL shows 34.63% average dividend payout ratio, which is the lower average payout ratio than NABIL. This firm has increasing in paying dividend. It maintained its average payout ratio in the years 2008/09 to 2010/11, other year's performance are under the yearly average. The deviation payout is lower than other firms, so that there is low risk to invest by the shareholders.

The average dividend payout ratio of NABIL & NIBL are 46.77% and 34.63% respectively. It indicates that the D/P ratio of NABIL is higher than NIBL. Highest % of D/P ratio of HBL and NABIL are 72.95% and 51.19% respectively. The C.V of D/P ratio of NABIL 35.51 is less than NIBL 64.16.

4.3 Statistical Analysis

Statistical tool is one of the important tools to analyze the data. There are various tools for the analysis of tabulated data such as, mean, standard deviation, regression analysis, co-relation analysis, trend analysis, various types of tests etc. There is convenient statistical tools are used in this thesis study.

4.3.1 Coefficient of Correlation Analysis

Co-efficient of co-relation shows the relationship between two or more than two variables. It measures that the two variables are positively or negatively co-related. For this purpose, Karl Pearson's co-efficient of correlation has been taken and applied to find out and analyze the relationship between Fixed Deposit to Total Liability Ratio Net Worth to Total Liabilities Ratio, MPS and DPS, MPS and EPS, DPS and EPS of NABIL and NIBL using Karl Persons coefficient of correlation, value of coefficient of determination etc.

Table: 4.10

Coefficient of Correlation Analysis

Componants	NABIL		NIBL	
	correlation	determination	correlation	determination
Fixed Deposit to Total Liability Ratio & Net Worth to Total Liabilities Ratio	0.4070	0.1657	0.7450	0.5550
MPS and DPS	0.6356	0.4039	-0.8837	0.7809
MPS and EPS	0.9351	0.8744	0.4043	0.1634

(Source: Appendix 3 & 6)

From Table no. 4.10, it is found that coefficient of correlation between Fixed Deposit to Total Liability Ratio & Net Worth to Total Liabilities Ratio of NABIL & NIBL are 0.4070 and 0.7450 respectively. Here the correlation determinations are 0.1657 and 0.5550. MPS and DPS of NABIL and NIBL is 0.6356 and -0.8837 respectively. It is shows that NIBL have the negative relationship between these two variables.

Moreover, the coefficient of determination of NABIL is 0.4039. It means 40.39 percent of variation in MPS has been explained by DPS. Similarly, value of coefficient of determination of NIBL is 0.7809. It refers that 78.9 percent variance in MPS are affected by DPS.

Again, the researcher found that the coefficient of correlation between MPS and EPS of NABIL is 0.9351. In addition, coefficient of determination of is 0.8744. It means only 87.44 percent of MPS is explained by EPS. Similarly, there is high degree correlation positive coefficient between MPS and DPS of NIBL, which is indicator by correlation coefficient of 0.9351. The value of coefficient of determination is found 0.4043 this refers that 40.43 percent of the variation. Here NABIL 0.1634 coefficient of determination.

4.3.2 Hypothesis Test

A hypothesis is a conjectural statement of the relation between two or more variables. Hypothesis is always in declarative sentence form and they relate either generally or specifically, variables to variables. In this study, test of significance of difference between two mean is used to analysis. In case of testing the significance of difference between two means of small sample, t-values are used to the t-distribution.

In this study, following sets of hypothesis have been formulated and tasted.

H₀: There is no significance difference between Fixed deposit to Total liabilities ratio of NABIL & NIBL.

H₁: There is significance difference between Fixed deposit to Total liabilities ratio of NABIL & NIBL.

H₀: There is no significance difference between Net worth to Total liabilities ratio of NABIL & NIBL. .

H₁: There is significance difference between Net worth to Total liabilities ratio of NABIL & NIBL.

H₀: There is no significance difference between Debt to equity ratio of NABIL & NIBL.

H₁: There is significance difference between Debt to equity ratio of NABIL and NIBL.

H₀: There is no significance difference between Earning per share (EPS) of NABIL & NIBL.

H₁: There is significance difference between Earning per share (EPS) of NABIL & NIBL.

Table: 4.11
Testing of Hypothesis (T-Distribution)

Tested Variable	Degree of Freedom	Level Of Significance	Calculated T-Value	Tabulated T- Value	Result
Fixed deposit to Total liabilities ratio	(5+5-2)=8	$\alpha=5\%$	0.2098	2.306	H ₀ Accepted
Net worth to Total liabilities ratio	(5+5-2)=8	$\alpha=5\%$	0.3670	2.306	H ₀ Accepted
Debt to equity ratio	(5+5-2)=8	$\alpha=5\%$	0.6167	2.306	H ₀ Accepted
Earning per share	(5+5-2)=8	$\alpha=5\%$	0.0092	2.306	H ₀ Accepted

(Source: Appendix 3, 4 & 5)

From the Table no. 4.11, it is found that the tabulated value of t-distribution is greater than calculated value in each case by considering the test statistic. So, null hypothesis H₀ is accepted and alternative hypothesis H₁ is rejected, it means there is no significance difference between Fixed deposit to Total liabilities ratio, Net worth to Total liabilities ratio, Debt to equity ratio & Earning per share of NABIL & NIBL. In other words, there is significant relationship between all above t-tested variables topic.

4.4 Major Findings of the Study

Basically in this research work, all the data has been obtained from secondary sources. Data has been analyzed by using financial as well as statistical tools. This topic focuses on the major findings of the study, which are derived from the analysis of working capital management of the selected banks with comparatively applying five years data from 2006/07 to 2010/11.

The major findings of the study derived from the analysis of financial tools of the selected banks are given below:

- The major components of Total fixed deposit of NABIL & NIBL are local currency and foreign deposit currency and Total shareholder equity are paid up capital & Reserve fund. The level of Total deposit and Total shareholder equity are in increasing trend over the study period.
- The trend of total deposit index and net worth index is in increasing trend but changing percentage of both banks total deposit and net worth are in fluctuating trend and sometimes it becomes negative also.
- The capital structure of both banks are good. Total deposit to total liabilities ratios of both banks are in fluctuating and increasing trend.
- Both the banks have more debt equity ratio (DER) i.e. Greater claims of creditors than owners, which shows that the banks have somehow able to reduce the claim of creditors than that of owners. The average ratio of NIBL was higher than the average ratio of NABIL. The variability of fixed deposit to net worth is higher in NABIL and NIBL.
- The EPS of NIBL is in decreasing throughout the study period. The EPS of NABIL is recorded higher than NIBL in every year of the study period. In comparison, NIBL has lower average EPS than NABIL. The coefficient of variations is higher EPS of NABIL than that of NIBL. However, the EPS of NIBL is recorded lower than NABIL. The number of share outstanding and low earnings in the middle fiscal years of the study period might be the factor of decreasing EPS of NIBL.
- The DPS of both banks are in decreasing and fluctuating throughout the study period. The decrease in DPS of the bank indicates that the bank had low

earning during those periods in comparison to previous years. The shareholders of the bank have not satisfied in terms of low cash dividend distributed by the bank.

- DPR of NABIL is decreasing and fluctuating in first five fiscal years of the study period due to distribution of bonus share in spite of cash dividend. It was increased in the later FY due to high earning per share than previous fiscal years. The average DPR of NIBL is increasing and fluctuating.
- The entire topic made by researcher in t-test is accepting the null hypothesis and rejecting the alternative hypothesis.
- The correlation co-efficient between MPS and DPS of NIBL becomes negative and other are positive.

CHAPTER - V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 SUMMARY

Without the significant improvement in the economic conditions, the growth and prosperity of a developing country like Nepal cannot be assured. The commercial banks play a major role in the economic growth of the nation. Commercial banks accumulate the funds by mobilizing scattered and idle resources from the savers in order to fulfill the fund requirement of productive sectors, promote trade and industrialization in the country, thereby, raising the employment opportunities and earning to the laborers who are the service providers to such industries and traders, which ultimately further promotes saving into the banks. More saving means more funds available in the bank for further investment. Thus, as the chain reaction, the economy growth of a nation can be realized.

To be a major contributing factor in the growth of the nation's economy, the commercial banks also have sustainable existence and growth of themselves. So, the banks must ensure reasonable profitability for which capital structure management decision is one of the important functions. As the banks are joint stock companies promoted by shareholders, it must primarily concerned with determining an optimal capital structure in the view of providing reasonable return on the funds of the shareholders.

The capital structure of any investing entity is the main key to ensure its return and make it more sustainable even in adverse environment. A commercial bank also has to plan for the reasonable capital structure. When a firm and/or an individual affect savings for the expectation of greater degree of future utility, the financial system allow them to earn an additional income on the accumulated savings, which is termed as a return on investment. Therefore, rate of return on investment is cash plus accrued capital gain. It is generally expressed on the basis of annual percentage rate.

Risk on the other hand is the chances of loss. Risk can be thought as the possibility that actual return from holding a security will deviate from an expected return. An asset is concerned as risky if its future return is highly volatile. The risk pertaining to an investment can be measured by computing standard deviation, coefficient of variance, covariance coefficient and beta coefficient and so on.

Investors always want to secure a higher return by taking a minimum level of risk. But theoretically, if they want to secure a higher return, they should also assume a higher risk. Again, at lower risk they should remained satisfied with lower return as there is positive relationship between risk and return.

Capital is the base of business firm. In the absence of capital or money, no one can imagine the existence and promoting of a business firm. For the smooth running of a business firm, different types of capital in the optimum level are required. Generally, there are two types of capital. One is debt capital and another is equity capital. Equity is owner's capital where as debt is the capital of creditors. Debt capital can be also divided in two parts. They are short term debt and long term debt.

5.2 CONCLUSIONS

On the basis of entire research study some conclusions have been deduced. This study particularly deals about the capital structure management of commercial banks in Nepal. The present study is mainly an attempt to give account of comparative study about commercial banks in different aspects such as analyzing fixed deposits, analyzing shareholders equity, analyzing MPS, EPS, DPS and other related ratios and indicators of the basis of financial statement.

After conducting the Capital structure management of NABIL and NIBL, covering the study period of 2006/07 to 2010/11, the following conclusions can be drawn from the study;

- This study is particularly deals with conclusion about “A comparative study of capital structure management of NABIL Bank Limited and Nepal Investment Bank Limited”. The Capital Structure decision is crucial because of the need to maximize returns to various organizational constituencies, and also because of the impact such a decision has on an organization's ability to deal with its

competitive environment. This present study evaluated the capital structure ratios and the relationship between capital structure of firms. The study reveals that the companies are financially leveraged with a large percentage of total debt being short term. Commercial bank has been using debt. The higher D/E ratio constitutes that the outsider's claim in total assets of the banks in owner's claim.

- The major components of Total fixed deposit of NABIL & NIBL are local currency and foreign deposit currency and Total shareholder equity are paid up capital & Reserve fund. The level of Total deposit and Total shareholder equity are in increasing trend over the study period.
- The private sector banks have been successful in increasing their deposits .The operating profits have gone up, so have the provision for loan loss. In short, banking sector in Nepal is somehow doing well even though it has to face a number of hurdles.
- Capital structure of any investing entity is the main key to ensure its return and make it more sustainable even in adverse environment. A commercial Bank also, being a commercial and investing institution (investor), has to plan for the reasonable capital structure.
- When an individual and a firm affect savings for the expectation of greater degree of future utility, financial system allow them to earn an additional income on the accumulated savings, which is termed as a return on investment. Rate of Return on investment, therefore, is cash plus accrued capital gain. It is generally expressed on the basis of annual percentage rate.
- Data relating to various activities of the Bank has been collected presented in tabular and various pie charts, figures and bars diagrams form and are tried to be interpreted in the study report in logical ways. Data are then analyzed applying various accounting financial, mathematical and statistical tools and findings of the study have been listed in a systematic manner. All these works are compiled in the forth chapter titled as 'Data Presentation and Analysis' of this study.
- During the research works, an extensive review of various literatures, books, past thesis, journals have been made and Internet materials from relevant web

site were also consulted. The works were compiled into the chapter two titled as 'Review of Literature' of this study report.

5.3 RECOMMENDATION

In this section of the study, it endeavors to recommend few points that can be helpful to stakeholders as well as to the company. These recommendations are based upon above calculations and drawn conclusions. These recommendations are guidelines which would be helpful in taking prompt and appropriate decision about capital structure.

- Capital structure is a serious matter, which affects EPS, Value of the firm, cost of capital etc. Between both the companies, NABIL is found to have the lesser cost of capital and higher value in comparison to NIBL. However, in the context of both companies; they have not given more attention in the capital structure matter seriously. So it is recommended that both the companies follow or give more attention into the theoretical aspects of the capital structure management and try to manage their activities accordingly.
- NIBL had lower EPS than NABIL. The number of shares outstanding and low earnings might be the factor of decreasing EPS of NIBL, which increases the strength of the share and improve the market price of NABIL than NIBL. The management of NIBL should eager to increase its performance in the market so that investor should hold the share of NIBL like NABIL.
- The average MPS and C.V. of NABIL is better than that of NIBL. There is high variation in MPS of NABIL over NIBL and ultimately encourages the investor to hold the share of NIBL rather than NABIL.
- Both the banks are more concentrating in the area of loan and advances. But due to the competitive market and present worse economic and political condition of the country, investment in the sector of loan and advances only is not favorable. So, both banks should also give the emphasis in the other commission based sector like bill purchase and discount, government security and other investment so that profit could be secure.

- Banks are not able to mobilize to its deposits in terms of loans due to lack of sufficient safe investment opportunities. Thus it is suggested to the government to improve the political situation of the country.
- As published report of concerned banks are the major sources of data and information regarding this topic, untimely and late publication makes the researcher wait long and they also do not put available information regarding capital structure on their published report. So joint venture banks are suggested to publish all necessary publication in time and in their publication respectively for the convenience of researcher and other interested people.
- As the key to success for any organization and for good financial system in the country capital investment is essential, this is possible only by proper decision making of capital structure. So all the joint venture banks are supposed to set proper and practical in capital structure management.

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APPENDICES

Appendix: 1

Computation of Fixed deposit to Total Liabilities Ratio of NABIL & NIBL

Year	NABIL		NIBL		Ratio NABIL = FD/TL	Ratio NIBL = FD/TL
	Fixed deposit	Total Liabilities	Fixed deposit	Total Liabilities		
2006/07	5435189720	27253393008	7516686866	27590844761	19.94	27.24
2007/08	8464086113	37132759149	7944232558	38873306084	22.79	20.44
2008/09	8310708297	43867397504	11633380218	53010803126	18.95	21.95
2009/10	14711158487	52150237343	16825148284	57305413482	28.21	29.36
2010/11	16840831154	58141437401	18378300034	58356827501	28.97	31.49

Appendix: 2

Computation of Net worth to Total Liabilities Ratio of NABIL & NIBL

Year	NABIL		NIBL		Ratio NABIL = NW/TL	Ratio NIBL = NW/TL
	Net worth	Total Liabilities	Net worth	Total Liabilities		
2006/07	2,057,049,715	27253393008	1,878,123,538	27590844761	7.55	6.81
2007/08	2,437,198,989	37132759149	2,686,786,048	38873306084	6.56	6.91
2008/09	3,130,240,637	43867397504	3,907,839,708	53010803126	7.14	7.37
2009/10	3,834,225,929	52150237343	4,585,393,092	57305413482	7.35	8.00
2010/11	4,572,056,221	58141437401	5,159,759,697	58356827501	7.86	8.84

Appendix - 3
Calculation for Mean value, Standard Deviation, Correlation & t-test between
Fixed Deposit to Total Liability Ratio & Net Worth to Total Liabilities Ratio

Year	FD/TL Ratio (X ₁)	NW/TL Ratio (X ₂)	x ₁ =X ₁ - \bar{x}_1	x ₂ =X ₂ - \bar{x}_2	x ₁ · x ₂	x ₁ ²	x ₂ ²
063/64	19.94	27.24	-3.832	1.144	-104.384	14.68	1.31
064/65	22.79	20.44	-0.982	-5.656	-20.0721	0.96	31.99
065/66	18.95	21.95	-4.822	-4.146	-105.843	23.25	17.19
066/67	28.21	29.36	4.438	3.264	130.2997	19.70	10.65
067/68	28.97	31.49	5.198	5.394	163.685	27.02	29.10
N ₁ = 5 N ₂ = 5	$\sum X_1$ =118.86	$\sum X_2$ =130.48			$\sum x_1 \cdot x_2 =$ 63.69	$\sum x_1^2 =$ 85.62	$\sum x_2^2 =$ 90.24

For Fixed Deposit to Total liabilities Ratio,

$$\text{Mean } (\bar{X}) = \frac{\sum X_1}{N_1} = \frac{118.86}{5} = 23.772$$

$$\text{S.D } (\sigma) = \sqrt{\frac{\sum (X_1 - \bar{x}_1)^2}{N_1}} = \sqrt{\frac{85.62}{5}} = 4.14$$

For Net Worth to Total Liabilities Ratio,

$$\text{Mean } (\bar{X}) = \frac{\sum X_2}{N_2} = \frac{130}{5} = 26.096$$

$$\text{S.D } (\sigma) = \sqrt{\frac{\sum (X_2 - \bar{x}_2)^2}{N_2}} = \sqrt{\frac{90.24}{5}} = 4.248$$

Correlation between Total deposit and Loan & Advance of EBL,

$$(r_{12}) = \frac{\sum x_1 x_2}{\sqrt{\sum x_1^2 \sum x_2^2}}$$

$$= \frac{63.69}{\sqrt{85.62 \times 90.24}} = 0.407$$

For Hypothesis,

Test statistic under H_0 ,

$$t = \frac{(\bar{X}_1 - \bar{X}_2)}{\sqrt{S^2 \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}} = \frac{(118.86 - 130.48)}{\sqrt{5.243 \left(\frac{1}{5} + \frac{1}{5}\right)}} = 0.2098$$

$$S^2 = \frac{n_1 s_1^2 + n_2 s_2^2}{n_1 + n_2 - 2} = \frac{5 \times 4.14 + 5 \times 4.248}{5 + 5 - 2} = 5.243$$

Appendix - 4

Calculation for Mean value, Standard Deviation & t-test between EPS of NABIL & NIBL

Year	EPS NABIL (X ₁)	EPS NIBL (X ₂)	x ₁ =X ₁ - \bar{x}_1	x ₂ =X ₂ - \bar{x}_2	x ₁ · x ₂	x ₁ ²	x ₂ ²
063/64	137.08	62.57	32.908	10.72	352.77	1082.94	114.92
064/65	115.86	57.87	11.688	6.02	70.36	136.61	36.24
065/66	113.44	37.42	9.268	-14.43	-133.74	85.90	208.22
066/67	83.81	52.55	-20.362	0.7	-14.25	414.61	0.49
067/68	70.67	48.84	-33.502	-3.01	100.84	1122.38	9.06
N ₁ = 5 N ₂ = 5	∑ X ₁ =118.86	∑ X ₂ =130.48			∑ x ₁ ·x ₂ = 375.99	∑ x ₁ ² = 2842.44	∑ x ₂ ² = 368.96

For Hypothesis,

Test statistic under H_0 ,

$$t = \frac{(\bar{X}_1 - \bar{X}_2)}{\sqrt{S^2 \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}} = \frac{(104.172 - 51.85)}{\sqrt{22.66 \left(\frac{1}{5} + \frac{1}{5}\right)}} = 0.0091$$

$$S^2 = \frac{n_1 s_1^2 + n_2 s_2^2}{n_1 + n_2 - 2} = \frac{5 \times 26.657 + 5 \times 9.604}{5 + 5 - 2} = 22.66$$

Appendix - 5

Calculation for t-test between Debt to equity ratio of NABIL & NIBL

Year	DER NABIL (X ₁)	DER NIBL (X ₂)	x ₁ =X ₁ - \bar{x}_1	x ₂ =X ₂ - \bar{x}_2	x ₁ · x ₂	x ₁ ²	x ₂ ²
063/64	264	400	-61.8	56.6	-3497.88	3819.24	3203.56
064/65	347	296	21.2	-47.4	-1004.88	449.44	2246.76
065/66	265	298	-60.8	-45.4	2760.32	3696.64	2061.16
066/67	385	367	59.2	23.6	1397.12	3504.64	556.96
067/68	368	356	42.2	12.6	531.72	1780.84	158.76
N ₁ = 5 N ₂ = 5	∑ X ₁ = 1629	∑ X ₂ =1717			∑ x ₁ ·x ₂ = 186.40	∑ x ₁ ² = 13250.80	∑ x ₂ ² = 8227.20

For Hypothesis,

Test statistic under H₀,

$$t = \frac{(\bar{X}_1 - \bar{X}_2)}{\sqrt{S^2 \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}} = \frac{(325.8 - 343.40)}{\sqrt{64.32 \left(\frac{1}{5} + \frac{1}{5} \right)}} = 0.6167$$

$$S^2 = \frac{n_1 s_1^2 + n_2 s_2^2}{n_1 + n_2 - 2} = \frac{5 \times 57.56 + 5 \times 45.35}{5 + 5 - 2} = 64.32$$

Appendix - 6

Calculation for Correlation coefficient between MPS & DPS of NABIL

Year	MPS NABIL (X ₁)	DPS NABIL (X ₂)	x ₁ =X ₁ - \bar{x}_1	x ₂ =X ₂ - \bar{x}_2	x ₁ · x ₂	x ₁ ²	x ₂ ²
063/64	5050	100	1278	49	62622	1633284	2401
064/65	5275	60	1503	9	13527	2259009	81
065/66	4899	35	1127	-16	-18032	1270129	256
066/67	2384	30	-1388	-21	29148	1926544	441
067/68	1252	30	-2520	-21	52920	6350400	441
N ₁ = 5 N ₂ = 5	∑ X ₁ = 18860	∑ X ₂ =255			∑ x ₁ ·x ₂ = 140185	∑ x ₁ ² = 13439366	∑ x ₂ ² = 3620

For MPS,

$$\text{Mean } (\bar{X}) = \frac{\sum X_1}{N_1} = \frac{18860}{5} = 3772$$

$$\text{S.D } (\sigma) = \sqrt{\frac{\sum (X_1 - \bar{x}_1)^2}{N_1}} = \sqrt{\frac{13439366}{5}} = 1832.99$$

For DPS,

$$\text{Mean } (\bar{X}) = \frac{\sum X_2}{N_2} = \frac{255}{5} = 51$$

$$\text{S.D } (\sigma) = \sqrt{\frac{\sum (X_2 - \bar{x}_2)^2}{N_2}} = \sqrt{\frac{3620}{5}} = 30.08$$

Correlation between MPS & DPS of NABIL,

$$\begin{aligned} (r_{12}) &= \frac{\sum x_1 x_2}{\sqrt{\sum x_1^2 \sum x_2^2}} \\ &= \frac{140185}{\sqrt{13439366 \times 3620}} = 0.6356 \end{aligned}$$

Appendix - 7
List of commercial Banks in Nepal

S.N.	Name	Operation Date (A.D.)	Paid-up Capital (in Rs. '00 Thousands)
1	Nepal Bank Ltd.	1937/11/15	3804
2	Rastriya Banijya Bank Ltd.	1966/01/23	3853
3	Agriculture Development Bank Ltd.	1968/01/02	94375
4	Nabil Bank Ltd.	1984/07/16	20298
5	Nepal Investment Bank Ltd.	1986/02/27	24091
6	Standard Chartered Bank Nepal Ltd..	1987/01/30	16102
7	Himalayan Bank Ltd.	1993/01/18	20000
8	Nepal SBI Bank Ltd.	1993/07/07	18693
9	Nepal Bangladesh Bank Ltd.	1994/06/05	20103
10	Everest Bank Ltd.	1994/10/18	11196
11	Bank of Kathmandu Ltd.	1995/03/12	13595
12	Nepal Credit and Commerce Bank Ltd.	1996/10/14	13997
13	Lumbini Bank Ltd.	1998/07/17	13000
14	Nepal Industrial & Commercial Bank Ltd.	1998/07/21	13116
15	Machhapuchhre Bank Ltd.	2000/10/03	16272
16	Kumari Bank Ltd.	2001/04/03	14850
17	Laxmi Bank Ltd.	2002/04/03	16140
18	Siddhartha Bank Ltd.	2002/12/24	15610
19	Global Bank Ltd.	2007/01/02	15000
20	Citizens Bank International Ltd.	2007/06/21	19223
21	Prime Commercial Bank Ltd	2007/09/24	22457
22	Sunrise Bank Ltd.	2007/10/12	18554
23	Bank of Asia Nepal Ltd.	2007/10/12	15175
24	DCBL Bank Ltd.	2008/05/25	19209
25	NMB Bank Ltd.	2008/06/05	16517
26	Kist Bank Ltd.	2009/05/07	20000
27	Janata Bank Nepal Ltd.	2010/04/05	14000
28	Mega Bank Nepal Ltd.	2010/07/23	16310
29	Commerz & Trust Bank Nepal Ltd.	2010/09/20	14000
30	Civil Bank Ltd.	2010/11/26	12000
31	Century Commercial Bank Ltd.	2011/03/10	10800
32	Sanima Bank Ltd.	2004	20160