

CAPITAL STRUCTURE OF COMMERCIAL BANK OF NEPAL

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RECOMMENDATION

This is to certify that the thesis

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Entitled
Capital Structure of commercial Bank of Nepal

has been prepared as approved by thesis department in the prescribed format of the faculty of management. This thesis is forwarded for examination.

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Declaration

I hereby declare that the work reported in this thesis entitled, "Capital Structure of Commercial Bank of Nepal" submitted to Faculty of Management, Padma Kanya Multiple Campus, Tribhuvan University, is my original work done in the form of partial fulfillment of the requirement for the Master's Degree in Business Studies (MBS) under the supervision of Prof. Dr Manohar Krishna Shrestha and Associate Prof. Manik Ratna Tamrakar.

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TABLE OF CONTENTS

1. CHAPTER 1: INTRODUCTION

1.1. Background of the Study

1.1.1. Evolution of Banking Industry

1.1.2. Development of Banking Industry in Nepal

1.1.3. Introduction to Bank of Kathmandu Ltd. and Himalayan Bank Ltd.

1.2. Capital Structure of Commercial Banks

1.3. Statement of the problem

1.4. Objective of the study

1.5. Scope of the study

1.6. Organization of the study

1.7. Limitations of the study

2. CHAPTER 2: REVIEW OF LITERATURE

2.1. Conceptual Framework

2.2. Theories of Capital Structure

2.2.1 Traditional theory

2.2.2. Modigliani – Miller theorem

2.2.3. Trade off theory

2.2.4. Free Cash Flow theory

2.2.5. Pecking Order theory

2.2.6. Stakeholder theory

2.3. Approaches to Capital Structure

2.3.1. Traditional Approach

2.3.2. Net Income Approach

2.3.3. Net Operating Income Approach (NOI)

2.3.4. Modigliani – Miller Approach (MM approach)

2.4. Leverage

2.4.1. Financial Leverage

2.5. Review of Related Studies

2.5.1. Review of Journals

2.5.2. Review of Articles

2.5.3. Review of Thesis

3. CHAPTER 3: RESEARCH METHODOLOGY

3.1. Research Design

3.2. Data Collection Procedure

3.2.1. Nature and Sources of Data

3.2.2. The Population and Sample

3.3. Tools of Analysis

3.3.1. Financial Tools

3.3.1.1. Ratio Analysis

3.3.1.2. Leverage Analysis

3.3.1.3. Capital Structure Analysis

3.3.2. Statistical Tools

3.3.2.1. Mean

3.3.2.2. Standard Deviation (S.D)

3.3.2.3. Correlation Coefficient (r)

4. CHAPTER 4: DATA PRESENTATION AND ANALYSIS

4.1. Ratio Analysis

4.1.1. Long Term Debt to Total Debt Ratio

4.1.2. Long Term Debt to Capital Employed Ratio

4.1.3. Debt to Total Assets Ratio

4.1.4. Interest Coverage Ratio

4.1.5. Return on Total Assets

4.1.6. Return on Shareholders' Equity

4.1.7. Earning Per Share

4.1.8. Dividend Per Share (DPS) Analysis

4.2. Capital Structure

4.2.1. Net Income (NI) Approach

4.2.2. Net Operating Income (NOI) Approach

4.3. Leverage Analysis

4.3.1. Analysis of Financial Leverage

4.4. Correlation Analysis

4.4.1. Total Debt and Shareholders Equity

4.4.2. Long Term Debt and Earning Per Share

4.4.3. EBIT and Interest

4.4.4. EBIT and DPS

4.5. Major Findings of the Study

5. CHAPTER 5: SUMMARY, CONCLUSION AND RECOMMENDATION

5.1. Summary

5.2. Correlation

5.3. Recommendations

Bibliography

Appendix

LIST OF TABLES

Table

1. Long Term Debt and Total Debt Position
2. Comparative Long Term Debt to Capital Employed Ratio
3. Comparative Debt – Total Asset Ratio
4. Comparative Debt – Equity Ratio
5. Comparative Interest Coverage Ratio
6. Position of Comparative Return on Total Assets
7. Position of Comparative ROSHE
8. Position of Comparative EPS
9. Position of Comparative DPS
10. Comparative Position of Overall Capitalization Rate
11. Comparative Position of Effect of Debt on Equity Capitalization rate
12. Comparative Degree of Financial Leverage
13. Correlation Coefficient between Total Debt and Shareholders' Equity with probable error
14. Correlation Coefficient between Long Term Debt and EPS with probable error
15. Correlation Coefficient between EBIT and Interest with probable error
16. Correlation Coefficient Between EBIT and DPS with probable error

LIST OF FIGURE

Figures

1. The effect of Leverage on Cost of Capital under Traditional Theory
2. The effect of Leverage on Cost of Capital under NI Approach
3. The effect of Leverage on Total Market Value of the firm under NI Approach
4. The effect of Leverage on Cost of Capital under NOI Approach
5. The effect of Leverage on Total Market Value of the firm under NOI Approach
6. The Cost of Capital under the MM Hypothesis
7. Behavior of K , K_i , and K_s under MM Hypothesis

ABBREVIATIONS

BOK	Bank of Kathmandu Limited
B.S.	Bikram Sambat
C.E.	Capital Employed
DFL	Degree of Financial Leverage
DPS	Dividend Per Share
EBIT	Earning Before Interest and Tax
EBT	Earning Before Tax
EPS	Earning Per Share
FY	Fiscal Year
HBL	Himalayan Bank Limited
LTD	Long Term Debt
NIB	Nepal Investment Bank Limited
NEPSE	Nepal Stock Exchange
NI	Net Income
NOI	Net Operating Income
Rs	Rupees
ROA	Return on Assets
ROE	Return on Equity
ROSHE	Return on Shareholders' Equity
SHE	Shareholders' Equity
TA	Total Assets
TD	Total Debt
WACC	Weighted Average Cost of Capital

CHAPTER 1

INTRODUCTION

1.1. Background of the Study

Banks are among the most important financial institutions in the economy of the country. Bank is a business establishment that safeguards people's money and uses it to make loans and investments. A bank is an organization concerned with the accumulation of the idle money of the general public for the purpose of advancing to others for expenditure or investment. A bank is the institution, which accepts deposits from the public and in turn advances loans by creating credit.

Banks are the institutions that provide the funding required to start the business to those with skills and desire to operate the business collecting from those with the money but no skill or time to operate the business. Bank is a resource of mobilizing institution, which accepts deposit from various sources, and invests such accumulated resources in the fields of agriculture, commerce, trade, and industry.

In other words, banks are the institutions offering deposits subject to withdrawal on demand and making loans of a business nature. Banks offers wide range of financial services like credit, savings, payments services etc.

1.1.1 Evolution of Banking Industry

The basis of banking is the expectation that the business will generate money at some time in the future to repay the amount lent or invested, plus a return to the owner of the funds.

Banking is nearly as old as civilization. The ancient Romans Developed and advanced banking system to serve their vast trade network, which extended throughout Europe, Asia, and much of Africa.

According to historical sources, the goldsmiths and moneylenders contributed to a large extent in the growth of banking. In the early age, the goldsmiths used to store peoples gold charging nominal charges and issued receipts to the depositors, which was good for payments. At the time, this was done for security rather than interest. Later they started advancing the money charging interest. The goldsmith-moneylenders

started performing the functions of modern banking, i.e. accepting deposits and advancing loans.

However, the modern banking originated in Italy in 1157 with the establishment of the first bank “Bank of Venice” to finance the monarch in the wars. Following it were the establishments of bank of Barcelona and the Bank of Genoa in 1401 AD and 1407 AD respectively. With large banking firms established in Florence, Rome, Venice, and other Italian cities banking activities spread throughout Europe and slowly spread throughout the world. Since the 1960’s banking has become much more international because of the increase in the number of multinational companies and the spread of their operations worldwide.

1.1.2. Development of Banking Industry in Nepal

Nepal is a small landlocked nation hidden in the Himalayan Mountains nestled in between India and China. Both the countries have matured economics conditions where as Nepal is one of the under developed countries in the world with almost half the population living below the poverty line as it is ranked as one of the world’s poorest.

The development of banking is relatively recent in the context of Nepal. As in other countries goldsmiths and landlords were the ancient bankers of Nepal. The Nepali banking system is small and fragmented. History of banking in Nepal in the true sense started in the year 1994 BS with the establishment of Nepal Bank Limited, Nepal’s first commercial bank established as a joint venture between the government and private individuals.

Nepal Rastra Bank the central bank was set up on 2013 BS to make the banking system more systematic and dynamic and to help the government formulate monetary policies and to develop the financial sector. As Nepal adopted planned development program in the mid fifties, the nation felt dearth of financial resources .Existing banking with only one commercial bank were not sufficient to meet the growing needs of the country.

Therefore, the need to establish another commercial bank was felt and Rastriya Banijya Bank was established as a milestone. The progress in the banking system in Nepal was felt after the establishment of the Rastriya Banijya Bank a state-owned commercial bank, with authorized capital of

Rs.10 million was established in 2024 BS to develop agricultural sector and support it financially.

In 2041 BS, Nepal's first joint venture bank, Nepal Arab Bank Ltd (now known as Nabil Bank Ltd.) was established which proved to be a milestone in the history of banking. In 2042, Nepal Indosuez Bank Ltd (now known as Nepal Investment Bank Ltd) and in 2043, Nepal Grindlays Bank Ltd (now known as Standard Chartered Bank Ltd) were established. After restoration of democracy in 2046, Himalayan Bank Ltd was established in 2049. Since then number of other commercial banks have been established. Today, there are more than 26 commercial banks existing in Nepal so far.

1.1.3. Introduction to Bank of Kathmandu Ltd., and Himalayan Bank Ltd.

Bank of Kathmandu Ltd.

Incorporated in 1993, in collaboration with SIAM Commercial Bank PCC, Thailand, Bank of Kathmandu started operation in March 1995. Out of 30% Holding diluted 25% holdings to the Nepalese citizens in 1998. It is a culmination of a comprehensive vision of the promoters to take the Nepalese economy to a newer realm in the global market. Promoters own 42% of total share of the bank and general public owns the other 58%. The bank started its operation with the authorized capital of Rs.100 million, issued capital of Rs.50 million, and paid up capital of Rs.46.35 million.

Himalayan Bank Ltd.

Himalayan Bank Ltd., the first commercial bank of Nepal with Maximum Shareholding by the Nepalese private Sector, was incorporated in 1992 by a few distinguished business personalities of Nepal in partnership with Employees Provident Fund and Habib Bank Limited, one of the largest commercial Bank of Pakistan Started operating in 1993.

Besides commercial activities, the bank also offers industrial and merchant banking. The bank started its operation with the Authorized

Capital of Rs.100 million, issued capital of Rs.65 million, and paid up of Rs.53.63 million.

1.2. Capital Structure of Commercial Banks

Every business firm or Bank requires the initial funds for its sound operation. Capital is the blood of the business. A business firm or enterprises cannot run their business without capital. Enterprises whether they are government owned or privately owned have to make pertinent capital structure decision in identifying exactly how much capital is needed to run their operating smoothly.

The fund required are generated usually by two means: equity and debt, equity provides the ownership of the firm to the shareholders. On the other Hand, debt is a fund borrowed with fixed charges to be paid periodically to the debtor, the term capital structure refers to the proportion of debt and equity capital or the composition of long term source of finance, such as preference capital debentures, long term debt and equity capital including services and surpluses (i.e. retained earning and excluding short term debts.)

The term capital structure refers to the mix of different types of funds a company uses to finance its activities. Capital structure varies greatly from one company to another. For example, some companies are financed mainly by shareholders finds whereas others make much greater use of borrowings.

Firstly, we must decide what we mean by a good capital structure. This would be a capital structure, which results in a low overall cost of capital for the company, that is, a low overall rate of return that needs to be paid on funds provided. If the cost of capital is low, then the discounted value of future cash flows generated by the company is high resulting in a high overall company value. The objective is therefore to find the capital structure that gives the lowest overall cost of capital and consequently, the highest company Value.

The capital structure decision affects the total value of the firm. The proper balance between debt and equity is necessary to ensure a trade off between risk and return to the shareholders. The capital structure of the

bank should be such that leads to the value maximization. The optimal capital structure, i.e. the capital structure with reasonable proportion of debt and equity minimizes the opportunity cost of capital and maximizes the shareholders' wealth.

1.3. Statement of the Problem

Banking plays a significant role in the economic development of the country by extending credit to the people. Although banking industry in Nepal is making remarkable progress and growth. It's not without the problems. At the present context, the main problem faced by the business sector as well as bank is the unstable political and economic condition of the country.

Another problem faced by the banking industry is the lack of optimal capital structure in the commercial banks. The success and prosperity of a bank relies heavily on maximization of the wealth of the shareholders or return on equity. Nepalese banks do not take the capital structure concept seriously. The combination of debt and equity used in the capital structure is not proportionate which in turn affects the value maximization of the bank.

The present study will try to analyze and examine the practice of capital structure in the commercial banks in Nepal. This study specially deals with the following problems.

1.3.1.1. Whether or not the capital structure affects the growth of the bank?

1.3.1.2. To what extent the capital structure policy is followed by the commercial banks?

1.3.1.3. What are the main problems faced by the commercial banks in developing and implementing the capital structure policy?

1.4. Objective of the Study

The basic objective of this study is to analyze the capital structure and its affects on the risk and returns of the commercial banks in context of Nepal. The specific objectives are given below:

1.4.1.1. To evaluate the role of capital structure on the growth of the commercial banks in Nepal.

1.4.1.2. To analyze the capital structure of the commercial banks in Nepal.

1.4.1.3. To analyze the relationship of capital structure with variables such as earning per share, dividend per share, and net worth.

1.4.1.4. To provide the suggestion on the basis of findings for further growth of the banks under study.

1.5. Scope of the Study

In the context of Nepal, there is less availability of research works, Journals and articles in the field study concerning the capital structure of commercial banks as well as other financial institutions. As it is a well known fact that the commercial banks can affect the economic condition of the whole country, the effort is made to highlight the capital structure policy of commercial banks expecting that the study can balance the problem of the equity and debt capital used by the commercial banks. On the other hand, the study would provide information to the management of the bank that would help them to take corrective action to optimize the value of the bank by using optimal capital structure. This study can provide information to the shareholders and the public on the proportion of equity and debt used as the fund by the bank.

1.6. Organization of the Study

The study has been organized into five chapters, each devoted to some aspects of the study of capital structure. Chapter one to five consists of introduction, review of literature, research methodology, the presentation and analysis of data, and summary, conclusion and recommendation of the study. The rationale behind this kind of approach is to follow a simple research methodology approach.

Chapter one deals with major issues to be investigated along with background of the study, statement of the problem and objectives and scope of the study.

Chapter two includes a discussion on the conceptual framework and review of the major empirical works as well as review of Nepalese studies. The conceptual considerations and review of related literature conducted in this chapter provides a framework with the help of which the study has been accomplished.

Chapter three describes the research methodology employed in the study. This chapter deals with research design nature and sources of data, and data analysis tools.

Chapter four consists of presentation and analysis of data which deal with the empirical analysis of the study.

Lastly, chapter five indicates the summary, conclusions and recommendation of the Study.

1.7. Limitations of the Study

This study is simply a study for the partial fulfillment of MBS degree, which has to be finished within a short span of time. This is not far from several limitations, which weaken the objective of the study. Some of the limitations are given below:

1.7.1.1. The study is mainly based on secondary data. So the result depends on the availability and reliability of the secondary data.

1.7.1.2. The Study covers the period of five fiscal years only.

1.7.1.3. Out of the numerous affecting factors only those factors related with capital structure are considered.

1.7.1.4. Out of 26 commercial banks, only 2 banks are taken into account to do the comparative study.

CHAPTER 2

REVIEW OF LITERATURE

This chapter is about the review of literature. It is believed that the review of literature is helpful to show the needs of the research work and to justify the work. It gives more information and description of the related theoretical aspects. It tries to clear the conceptual thought and bank related terms. There might be different ways to present the review but it is presented in this way.

2.1. Conceptual Framework

Capital structure is the mix (or proportion) of a firm's permanent long term financing represented by debt, preferred stock and common stock equity. (Van Horne, 1997:240)

The financial manager is concerned with determining the best financial mix or capital structure where the optimal financing mix would exist, in which market price per share could be maximized. (Pandey, 1988:203)

Capital structure of the firm is the permanent financing represented by long term debt, preferred stock and shareholders' equity. Thus, a firm's capital structure is only part of its financial structure. (Weston and Brigham, 1978:565)

Capital structure analysis is the basis for analyzing the usefulness of accumulation from different sources of capital composition of capital is another factor, which affects the profitability. Loan capital dominant enterprises have less chance for prosperity despite of their huge profits. (Kuchhal, 1961:525)

Sound capital structure is required to operate Business smoothly and achieve the business goal. Capital structure is concerned with analyzing the capital composition of the company. (Weston & Brigham, 1978: 555)

Sound capital structure is one of the most complex areas of financial decision making due to its interrelation with other financial decision variables. The success and failure of the enterprise depends on the ability of top management to make appropriate capital structure decision.

2.2. Theories of Capital Structure

Capital structure is an important subject, especially for firms. A bad capital structure is more expensive than a good capital structure.

Firms raise investment funds in a number of different ways. A firm's mix of these different sources of capital is referred to as its capital structure.

Basically, the theories of capital structure are distinguished into 6 different groups.

-) Traditional theory
-) Modigliani-Miller theorem
-) Trade off theory
-) Free Cash Flow theory
-) Pecking Order theory
-) Stakeholder Theory

2.2.1. Traditional Theory

The first theory is called the "traditional theory". Supporters of this theory believe that the lowest weighted average cost of capital (WACC) will maximize the firms' market value. This means the existence of an optimum relation between debts and equity but it is very difficult to reach that point.

Although it is cheaper to finance with debt, this theory certainly rejects to finance all with debt because after a certain level of debt the risk of non payment increases. In this case shareholders and debt financiers demand a higher compensation.

2.2.2. Modigliani- Miller Theorem

The next theory is the most important theory, although it is not a realistic theory. The Modigliani- Miller theorem state that if the capital structure decision has no effect on the cash flows generated by a firm, the decision also will have no effect – in absence of transaction costs – on the total value of the firm's debt and equity. This means that there is no relationship between a firm's market value and the capital structure. Profitability of a firm's activities is the only factor that determines the market value.

This theory is based on a perfect capital market. The only market imperfections they admit are corporate taxes. In short, the assumptions of the Modigliani-Miller theorem are (JC Van Horne, 1995):

1. Capital markets are perfect
 -) Information is free of costs and widely available.
 -) No transaction cost.
 -) Investors behave rational.
2. Every firm has perpetual flows of money with equal times values
3. Companies can be divided in homogeneous risk classes
4. There are no taxes.

2.2.3. Trade off theory

The third theory is called the (static) trade off theory. The trade off between the costs and returns of debt financing determines the optimum debt ratio. Firms consider this ratio as a target debt ratio, because this ratio will maximize the market value of a corporation. Myers assumes that firms need to adapt their capital structure to reach that ratio. But an adaptation of the capital structure needs time and costs money. Therefore, it is possible that present temporary debt ratios differ from the target ratios.

Or, as Myers formulated it:

“A static trade off framework, in which the firm is viewed as setting a target debt- to- value ratio and moving gradually toward to it , in much the same way that a firm adjusts dividends to move towards a target payout ratio” (Myers, 1984:576)

2.2.4. Free Cash Flow Theory

In the contrary of the trade off theory, in which a firm strives after a maximization of the market value, the free cash flow theory presumes that there are enormous conflicts of interest between shareholders and stakeholders. This implies that manager’s decision don’t always maximize the market value of the firm (Jensen, 1986:324)

A free cash flow is the balance of money, when all projects (with positive net present values) are financed. Debt reduces the agency costs of free cash flow by reducing the cash flow available for spending at the discretion of managers (Jensen, 1986:324). Debt also reduces the freedom of decisions, because of firm is forced to pay at certain times interest and payoffs. There will always be risk that a firm won't be able to pay interest and payoffs in future times. This risk causes managers to lead and organize a firm more efficient.

2.2.5. Pecking Order theory

Myers also shows another view of capital structure, not the static trade off theory, but also the pecking order theory. This fifth theory assumes that firms have perforations by choosing a way to finance their projects. The sequence of investment resources is restricted by problems caused by asymmetrical information between managers and potential investors. The following assumptions are made by this theory. (Myers, 1984)

1. Firms prefer internal ways to finance projects
2. Firms adapt their target dividend payout ratios to available investment resources
3. Internal resources of a firm are fluctuating because of unpredictable fluctuations of profitability
4. When firms need extra resources, they prefer the safest way of getting funds; this means that firms prefer debt to convertible stocks and common stocks.

The result of this pecking order theory is that a firm doesn't have a certain target debt ratio. The target ration is dependent on the way a firm financed its projects in the past. This theory also pays attention to costs of asymmetrical information and costs of bankruptcy.

When these costs exist, a firm doesn't always choose to finance projects with a positive net present value. Not a positive net present value determines whether a firm finances a project or not, but the way in which a firm is able to finance their projects.

Baskin researched the validity of this theory in 1989. He made the following conclusion:

The accumulated evidence in favor of the pecking order hypothesis is now substantial. Now it is Possible to provide pecking order behavior with a rational theoretical basis, and there seems no longer any reason to ignore the manifest empirical evidence.

2.2.6. Stakeholder theory

Cornell and Shapiro (1987) assume that not only investors have an interest in a firm. There are different groups of non-investor stakeholders, and some of them have a lot of influence in the financial policy of a firm. Or, as Cornell and Shapiro wrote: Financial structure may also depend on a firm's net organizational capital and on the nature of its stakeholders. Examples of non-investor stakeholders are customers, employees and suppliers.

Non-investor stakeholders hold implicit claims. Implicit claims are non-written promises and rights, such as the right provide services to customers or jobs-security for employees.

2.3. Approaches to Capital Structure

-) Traditional approach
-) Net income approach
-) Net operating income approach
-) Modigliani-Miller's approach

All the above approaches are based on some common assumptions, which are as follows:

Basic assumptions and definitions :(Weston and Brigham, 1992:741)

1. Only two types of capital are employed, long term debt and common stock.
2. There is no tax on corporate income.
3. The firm's total assets are fixed, but its capital structure can be changed immediately by setting debt to repurchase common stock, or stock to retire debt.
4. All earnings are paid out as dividends.
5. All investors have the same subjective probability distributions of expected future operating earnings (EBIT) for a given firm: that is, investors have homogenous expectations.
6. The operating earnings of the firm are not expected to grow, that is, the firm's expected EBIT is same in all future periods.

7. The firm's business risk is constant over time and is independent of its capital structure and financial risk

8. The firm is expected to continue indefinitely.

In addition to these assumptions, it uses the following basic definitions and symbols:

S = total market value of the stock. (Equity)

B = total market value of the bonds. (Debt)

V = total market value of the firm = S+B

EBIT = earnings before interest and taxes = net operating income (NOI)

I = Interest Payments

Debt

$$\text{Cost of Debt (Kd)} = \frac{\text{Interest}}{\text{Debt}} = \frac{I}{B}$$

$$\text{Value of Debt (B)} = \frac{\text{Interest}}{Kd} = \frac{I}{Kd}$$

Equity or common stock

$$\text{Cost of Equity Capital (Ks)} = \frac{d1}{P0} + g$$

Where,

$d1$ = Next Dividend

$P0$ = Current price per share

g = Expected growth rate

Overall or Weighted Average cost of capital

$$K = Kd(B/V) + Ks(S/V) = \frac{Kd(B)}{B+S} + \frac{Ks(S)}{B+S}$$

The Total Value of the firm is thus,

$$V = B+S = \frac{I}{Kd} + \frac{EBIT - I}{Ks}$$

2.3.1. Traditional approach

The traditional view of capital structure, which is also known as an intermediate approach, is a compromise between the Net Income Approach and the Net Operating Income Approach. It states that when a company starts to borrow, the advantages outweigh the disadvantages. The cheap cost of debt, combined with its tax advantages, will cause the WACC to fall as borrowing increases. However as gearing increases, the effect of financial leverage causes shareholders to increase their required return (i.e., the cost of equity rises). At high gearing the cost of debt also rises because the chance of the company defaulting on the debt is higher (i.e. bankruptcy risk). So at higher gearing, the WACC will increase. 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 for 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.

The statement that debt funds are cheaper than equity funds carries the clear implication that the interest rate of debt plus the increased yield on the common stock, together on the weighted basis will be less than yield (cost of equity) which existed on the common stock before debt financing (Barges, Alexander, 1963:11). That is the weighted average cost of capital will decrease with the use of debt up to a limit.

According to the traditional position, the manner in which the overall cost of capital reacts to changes in capital structure can be divided into three stages. (Soloman, Ezra, 1963: 94)

First stage: Increasing Value

The first stage starts with the introduction of debt in the firm's capital structure. In this stage, the cost of equity (Ks) either remains constant or

rises slightly with debt because of the added financial risk. But it does not increase fast enough to offset the advantage of low cost debt. In other words, the advantage arising out of the use of debt is so large that, even after allowing for higher cost of equity, the benefit of the use of the cheaper sources of funds are still available. As a result the value of the firm (V) increases as the overall cost of capital falls with increasing leverage.

During this stage cost of debt (K_d) remains constant or rises only modestly. The combined effect of all these will be reflected in increase in market value of the firm and decline in overall cost of capital (K).

Second stage: Optimum value

In the second stage, further application of debt will raise cost of debt and equity capital so sharply as to offset the gains in net income. Hence, the total market value of the firm would remain unchanged. While the firm has reached a certain degree of leverage, increase in it has a negligible effect on the value of the firm or overall cost of capital of the firm. The increase in the degree of leverage increases the cost of equity due to the added financial risk that offsets the advantage of low cost debt. Within the range of such debt level or at a specific point, the value of the firm will be maximum or the cost of capital will be minimum.

Third stage: Declining value

Beyond the acceptable limit of leverage, the value of the firm decreases with the increase of the leverage or the overall cost of capital increases with the additional leverage, this happens because investors perceive a high degree of financial risk, which increases the cost of equity by more than enough to offset the advantage of low cost debt.

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.

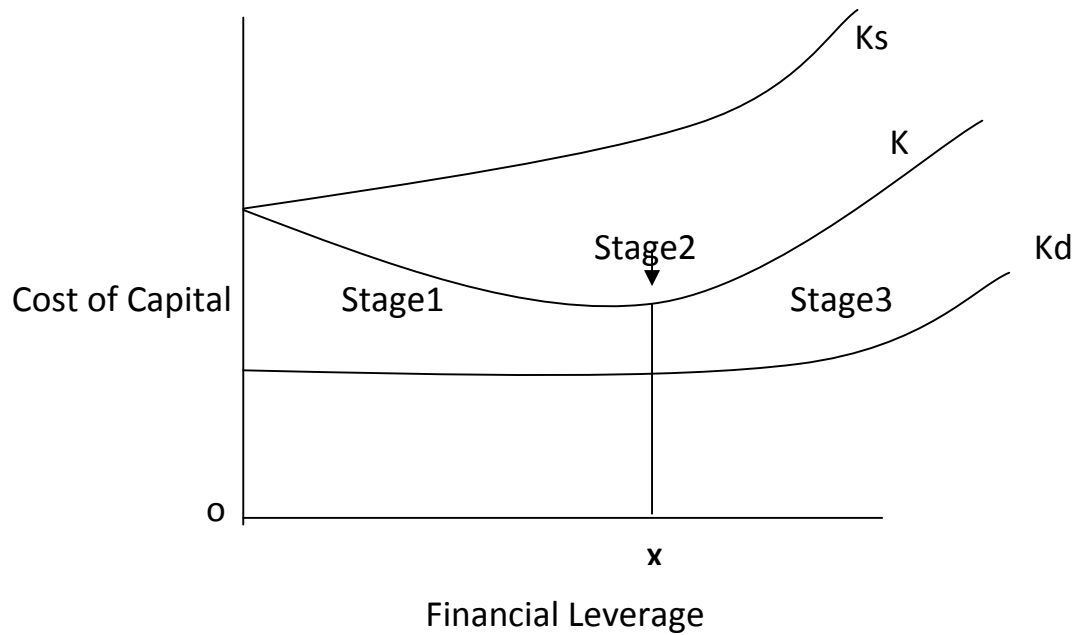


Figure 1: Effect of leverage on cost of capital under traditional theory

In the above figure, it is assumed that K_s rises at an increasing rate with leverage, whereas K_d is assumed to rise only after significant leverage has occurred. At first, the weighted cost of capital, K declines with leverage because the rise in K_s does not entirely offset the use of cheaper debt funds. As a result, K declines with moderate use of leverage. After a point, however the increase in K_s more than offsets the use of cheaper debt funds in the capital structure, and K begins to rise. The rise in K is supported further once K_d begins to rise. The optimal capital structure is point X ; thus the traditional position implies that the cost of capital is not independent of capital structure of the firm and that there is an optimal capital structure.

2.3.2. Net Income approach

David Durand proposed the Net Income Approach. This approach stated that firm can increase its value or lower the cost of capital by using the debt capital. According to NI approach, there exists positive relationship between capital structure and valuation of firm and change in the pattern of capitalization bring about corresponding change in the overall cost of capital and total value of the firm. Thus with an increase in the ratio of debt to equity, overall cost of capital will decline and market price of

equity stock as well as value of firm will rise.(David Durand, 1959:91-116). The converse will hold true if ratio of debt to equity tends to decline. The approach assumes no change in the behavior of both stockholders and debt holders as to the required rate of return in response to a change in the debt – equity ratio of the firm. They want to invest since debt holders are exposed to lesser degree of risk, assumed of a fixed rate of interest and are given preferential claim over the profit and assets, the debt holders' required rate of return is relatively lower than that of equity holders. So, the debt financing is relatively cheaper than equity. For this reason, at constant cost of equity (K_s) and cost of debt (K_d), the overall cost of capital (K) declines with the increased proportion of the debt in the capital structure. This suggests that higher the level of debt, lower the overall cost of capital and higher the value of firm.

It means that a firm attains an optimal capital structure when it used 100% debt financing. Running a business with 100% debt financing, however, is quite uncommon in the real world. The firm can achieve optimal capital structure by making judicious use of debt and equity and attempt to maximize the market price of its stock.

In sum, as per NI approach, increase in ratio of debt to total capitalization brings about corresponding increase in total value of firm and decline in cost of capital. On the contrary, decrease in ratio debt to total capitalization causes decline in total value of firm and increase cost of capital. Thus this approach is appeared as relevancy theory. This approach is based on the following assumptions:

1. The cost of equity and debt remain constant to the acceptable range of leverage.
2. The corporate income taxes do not exist.
3. The cost of debt rate is less than the cost of equity.
4. The increasing leverage brings about no deterioration in the equity of net earnings so long as borrowing is consigned to the amount below the acceptable limits.

Graphically, the effect of leverage on the firm's cost of capital and the total market value of the firm is shown below.

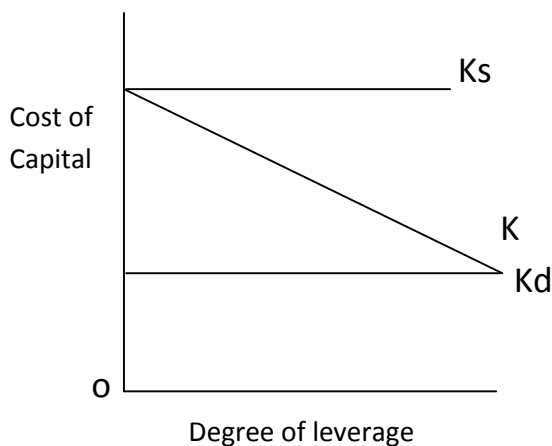


Figure 2: The Effect of Leverage on the Capital Structure

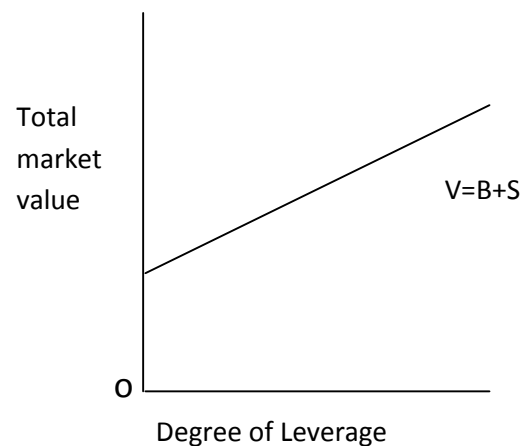


Figure 3: The Effect of leverage on the Total Market Value of the Firm

Figure 2 shows a continuous decrease in K with the increase in debt-equity ratio, since any decrease in K directly contributes to the value of the firm; it increases with the increase in the debt-equity ratio (figure 3). Thus the financial leverage, according to the NI approach is an important variable in the capital structure decision of a firm. Under the NI approach, a firm can determine an optimal capital structure. If the firm is unlevered the overall cost of capital will be just equal to the equity capitalization rate.

In brief, the essence of the net income approach is that the firm can lower its cost of capital by using debt. The approach is based on the assumption that the use of debt does not change the risk perception of the investor. Consequently, the interest rate of debt and the equity capitalization rate remain constant to debt. Therefore, the increased use of debt results in higher market value of shares and as a result, lower overall cost of capital (K).

2.3.3. Net Operating Income approach (NOI)

NOI approach is another behavioral approach suggested by Durand David. This approach is diametrically opposite from the NI approach with respect to the assumption of the behavior of equity holders and debt holders. The essence of this approach is that the leverage/capital structure decision of the firm is irrelevant. The overall cost of capital is

independent of the degree of leverage; any change in leverage will not lead to change in the value of the firm and the market price of the shares. Net operating approach is slightly different from NI approach, unlike the NI approach in NOI approach, the overall cost of capital and value of firm are independent of capital structure decision and change in degree of financing. Leverage does not bring about any change in the value of firm and cost of capital.

The main difference between NI and NOI approach is the base that investors use to value the firm. Under NOI approach, the Net operating income, i.e. the earning before interest and tax (EBIT), instead of net income is taken as the base. Like the NI approach, the NOI approach also assumes a constant rate of K_d , which means that the debt holders do not demand higher rate of interest for higher level of leverage risk. However, unlike the assumption of NI approach, NOI approach assumes that the equity holders do react to higher leverage risk and demand higher rate of return for higher debt-equity ratio. This approach says that the cost of equity increase with the debt level and the higher cost of equity offset the benefit of cheaper debt financing resulting no effect at all on overall cost of capital.

The NOI approach is based on following assumption:

1. The market capitalizes the value of the firm as a whole. Thus, the split between debt and equity is not important.
2. The market uses an overall capitalization rate, K to capitalize the net operating income. K depends on the business risk. If the business risk is assumed to remain unchanged, K is constant.
3. The use of less costly debt funds increases the risk of shareholders. This causes the equity-capitalization rate to increase. Thus, the advantages of debt are offset exactly by the increase in the equity capitalization rate, K_s .
4. The debt capitalization rate, K_d is constant
5. The corporate income taxes do not exist.

The function of K_s under NOI approach can be expressed in equation as follows:

$$K_s = K + (K - K_d) B/S$$

The relationship between financial leverage and K, K_s, and K_d has been graphically depicted in following figures.

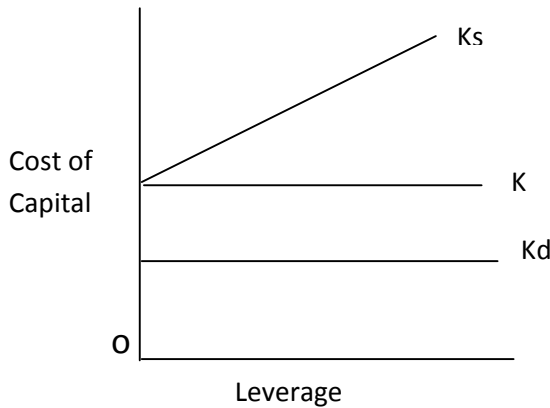


Figure 4: The Effect of Leverage on Cost of Capital

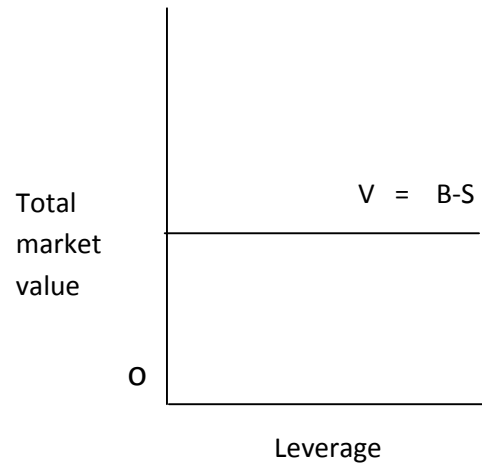


Figure 5: The Effect of Leverage on Total market value of the Firm

In the figure 4 above, it is shown that the curve K and K_d are parallel to the horizontal X-axis and K_s is increasing continuously. This is because K and K_d remain constant under all the circumstances but the K_s increases with the degree of increase in the leverage. Thus, there is no single point or range where the capital structure is optimum. We know obviously from the figure 4 that under the NOI approach, as low cost of debt is used, its advantage is exactly offset by increase in cost of equity in such a way that the cost of capital remains constant. By this, value of the firm also remains constant. At the extreme degree of financial leverage, hidden cost becomes very high hence the firm's cost of capital and its market value are not influenced by the use of additional cheap debt fund. (Gitman Lawrance, 1988:791)

2.3.4. Modigliani-Miller approach (MM approach)

The Modigliani-Miller thesis (Modigliani F and M.H. Miller, The Cost of Capital, Corporate Finance and The Theory of Investments”, American Economic Review, XLVIII June 1958) relating to the relation is akin to net operating income approach. MM approach, supporting the net operating income approach argues that, in the firm remain invariant to the capital structure changes. They make a formidable attack on the

transitional position by offering behavioral justification for having the cost of capital, K , remain constant through all degree of leverage. (Ibid, 272) MM contend that cost of capital is equal to the capitalization rate of a pure equity stream of income and the market value is ascertained by capitalizing its expected income at the appropriate discount rate of its risk class. MM proposition is based on the idea that no matter how you divide up the capital structure of a firm among debt, equity and other claims, there is conversion of investment value. (Ibid, 273). However, the following assumption regarding the behavior of the investors and the capital market, the actions of the firms and the tax environment are crucial for the validity of the MM hypotheses.

1. Perfect capital markets: the implication of perfect capital market is that securities are infinitely divisible, investors are free to buy and sell securities, investors can borrow without restrictions on the same terms and conditions as firms can, there are no transaction costs and investors are rational and behave accordingly.
2. Firms can be grouped into homogenous risk classes. Firms would be considered to belong to a homogenous risk class as their expected earnings, adjust for scale differences have identical risk characteristics. The share of the homogeneous firm would be perfect substitute for one another.
3. Firms distribute all net earning to the shareholders, i.e. divided payout ration is 100 percent.
4. There are no taxes. This assumption is removed later.
5. The assumption of perfect information and rationality, all investors has the same expectation of firm's net operating income with which to evaluate the value of any firm.

The MM cost of capital hypotheses can be best expressed in terms of their proposition I and II. (Modigliani and Miller, 1969: 261-279)

Proposition I

Given the above assumption, MM argues that for the same risk class, the total market value is independent of the debt-equity mix and is given by capitalizing the expected net operating income by the rate appropriate to the risk class (Ibid, 268)..

This is their proposition I. In equation this can be expressed as follows:

Value Of the Firm = *Market Value of Debt (B)* + *Market Value of Equity (S)*

$$= \frac{\text{Expected Net operating Income}}{\text{Expected overall capitalization Rate}} = \frac{EBIT}{K}$$

For an unlevered firm,

$$V_u = \frac{EBIT}{K_s}$$

Where,

K = K_s in case of unlevered firm.

Proposition I can be expressed in terms of the firm's overall capitalization rate, K, which is the ratio of Net Operating Income to the market value of all its securities.

That is:

$$K = \frac{NOI}{S+B} = \frac{NOI}{V}$$

K can also be expressed as

$$K = \frac{K_s (S)}{S+B} + \frac{K_d (B)}{S+B}$$

It means K is the weighted average of the expected rate of return of equity and debt capital of the firm since the cost of capital is defined as the expected net operating income divided by the total market value of the firm and since MM conclude that the total market value of the firm is unaffected by the financing mix, it follows that the cost of capital is independent of the capital structure and is equal to the capitalization rate of a pure equity stream of its class. (Pandey I.M, 1981:35)

The overall cost of capital function as hypothesis by MM is Shown in figure below:

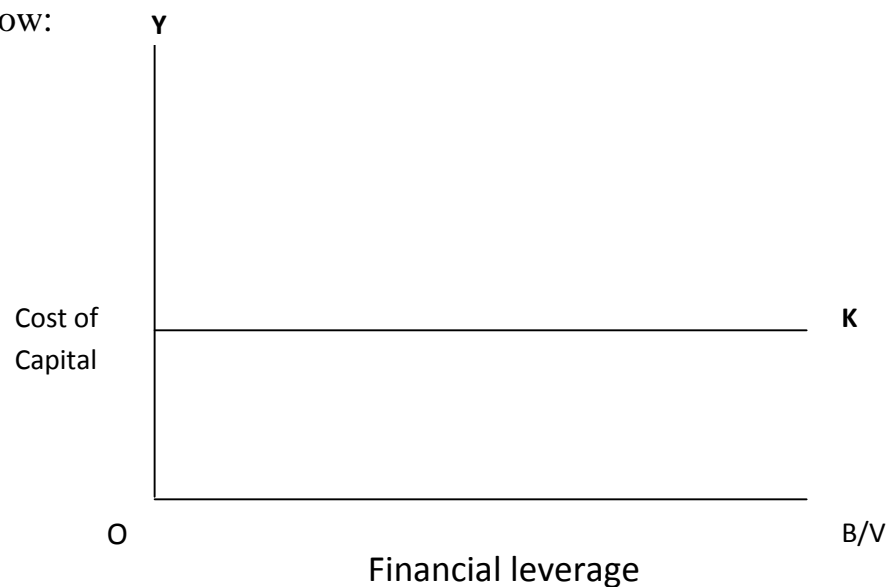


Figure 6: The Cost of Capital under the MM Hypothesis

Thus two firms identical in all respects except for their capital structure cannot command different market values nor have different cost of capital. But if there is a discrepancy in the market values or the cost of capital, arbitrary will take place, which will enable investors to engage in personal leverage to restore equilibrium in the market. (I.M. Pandey, 1981:37)

Proposition II

MM proposition II, which defines the cost of equity, follows from their proposition I and shows the implications of the net operating approach. The proposition II states the cost of equity rise proportionately with the increase in the financial leverage in order to compensate in the form of premium for bearing additional risk arising from the increasing leverage. (Pradhan S., 1992:362) The equation for the cost of equity can be derived from the definition of the average cost of capital.

$$K = \frac{Ks(S)}{S+B} + \frac{Kd(B)}{S+B}$$

$$Ks = \frac{K(B+S)}{S} - \frac{Kd(B)(B+S)}{(S+B)S}$$

$$K_s = K \left(1 + \frac{B}{S} \right) - \frac{K_d (B)}{S}$$

$$K_s = K + (K - K_d) \frac{B}{S}$$

The above equation states that for any firm in a given risk class the cost of equity, K_s , is equal to the constant average cost of capital, K , plus a premium for the financial risk, which is equal to debt- equity ratio times the spread between the constant average cost of capital and interest rate. As their proportion of debt increase, the cost of equity increases continuously even though K and K_D are constant, the crucial part of the MM hypothesis is that K will not rise even if very excessive use of leverage is made. This conclusion could be valid if K_d remains constant for any degree of leverage. But in practice K_s increases with leverage beyond a certain acceptable level of leverage. However, MM maintains that even if K_s is a function of leverage, K will remain constant as K_s will increase at a decreasing rate to compensate. This can be shown as:

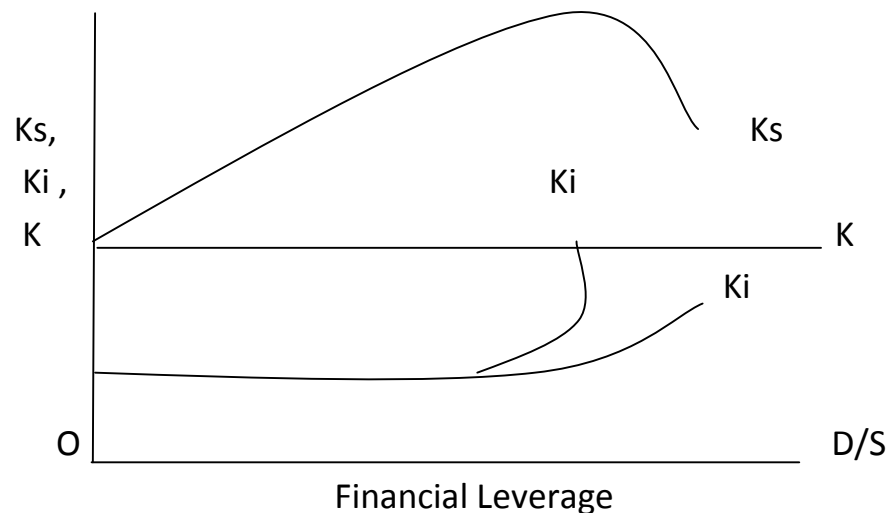


Figure7: Behavior of K, K_i , and K_s under MM Hypothesis

It is clear from the figure that K_s will increase till the marginal rate of interest (K_i) is below the cost of capital. As soon as the marginal rate of interest cuts the cost of capital, K_s will start falling.

2.4. Leverage

The term leverage may be defined as the use of that source of funds in the business for which the firm has to pay fixed charges, irrespective to the earnings of firm. There are two types of leverage: Financial leverage and operating leverage. Leverage associated with investment activities is called operating leverage and associated with financial activities is called financial leverage.

2.4.1. Financial leverage

Financial leverage is the ratio of total debt to total assets or the total value of the firm. (Weston and Brigham, 1981:555). The use of fixed sources of funds, such as debt and preference capital along with the owners' equity in the capital structure is described as financial leverage. (Waterman and Martin, 1963:7). Financial leverage refers to the response of shareholders income to change in earning before interest and tax and is created by debt or preferred stock financing with fixed interest and dividend payment. (Lawrence D. Schell and Haley, 1983:325).

The debt is risky as well as more advantageous in the context of earning. The use of debt and preferred stock financing provide the income advantage over the common stock financing of the firm under the favorable condition and they increase the risk too. Leverage is employed by the company to earn more. The surplus will increase the return on equity. Since the interest and principle payments are the contractual obligation to the firm. It is risky in the viewpoint of the shareholders.

2.5. Review of related Studies

2.5.1. Review of Journals

The Modigliani and Miller's Study: Modigliani F and Miller M.H., the cost of capital, corporation finance and the theory of investment. American economic review, XLVIII, June 1958:261-297)

In their first study, MM used the previous works of Allen and Smith in support of their independence hypothesis. Allen's study consisted of an analysis of the relation between security yields and financial structure for

43 large electric utilities, which is based on a average figure for the years 1947 and 1948, while smith designed his study of 42 electric utilities.

In the first part of their work MM tested their proposition I, the cost of capital is irrelevant to the firm's capital structure by correlation after tax cost of capital with leverage B/V . they found that the correlation coefficient is statistically insignificant and positive in sign.

In the second part of their study, they tested their proposition II the expected yield on common share is linear function of debt to equity ratio. The second part of their study is consistent with their views i.e. if the cost of borrowed funds increases, the cost of equity will decline to offset this increase.

MM conducted the second study in 1963, correcting their original hypothesis for corporate income taxes and expected cost of capital to be affected by leverage of its tax advantages or not. For this they conducted the mathematical analysis regarding the effect of leverage and other variable on the cost of capital, they found that the leverage factors are significant only because of the tax advantage involved. (Miller, M.H. and F. Modigliani, Estimates of the Capital to Electric Utility Industry, 1954-1957, American Economic Review, 56 June 1966:333-391)

Viet Anh Dang's study (Viet Anh Dang, "Testing the the Trade-Off and Pecking Order Theories", 2005)

Viet Anh Dang in the study, "Testing the Trade-Off and pecking Order Theories", 20 July 2005 examined the performance of two influential but contradicting theories of capital structure, known as the trade-off and pecking order theory. In general, our finding suggests that the trade-off theory holds well under both a partial adjustment and an error correction framework. In specifications that nest both theories, the former theory outperforms the latter theory. The introduction of the cash flow deficit variable has added little amount of additional explanatory power to the trade-off framework. Furthermore, the estimated coefficient on that variable is not fund to be statistically equal to unity as it would be if the strict interpretation of the pecking order theory were to hold. The results consistently show that the adjustment process prevails with the speed of adjustment coefficient significant and relatively high (above 50). There has been also some compelling evidence in favor of the relationship

between gearing and the conventional determining factors expect profitability, as predicted by trade-off framework. Non-debt tax shields and growth opportunities are reported to be inversely related to debt to the ratio, while collateral value of assets and size are found to have positive effects upon gearing.

In other respect, the study has posed serious questions on the empirical validity of the picking order theory. However, given the simplicity of the empirical model it is impossible to reject the pecking order theory prediction completely.

Joshua Abor (Abor J, "The effect of capital structure on profitability", the journal of Risk Finance, 2005:438-445)

Joshua Abor in the study "The effect of capital structure on profitability" mentioned that the relationship between capital structure and firm value has been the subject of considerable debate. Throughout the literature, debate has centered on whether there is an optimal capital structure for an individual firm or whether the proportion of debt usage is irrelevant to the individual firm's value. The capital structure of a firm concerns the mix of debt and equity the firm uses in its operation. Brealey and Myers contend that the choice of capital structure is fundamentally a marketing problem. According to Weston and Brigham, the optimal capital structure is the one that maximizes the market value of the firm's outstanding shares.

Other theories that have been advanced to explain the capital structure of firms include bankruptcy cost, agency theory, and the pecking order theory. These theories are discussed in turn.

Bankruptcy costs are the cost directly incurred when the perceived probability that the firm will default on financing is greater than zero. The bankruptcy probability increases with debt level since it increases the fear that the company might not be able to generate profits to pay back the interest and the loans. The potential costs of bankruptcy may be both direct and indirect. Examples of direct bankruptcy costs are the legal and administrative costs in the bankruptcy process. Examples of indirect bankruptcy costs are the loss in profits incurred by the firm as a result of the unwillingness of stakeholders to the business with them. The use of

debt in capital structure of the firm also leads to agency costs. Agency costs arise as a result of the relationships between shareholders and managers and those between debt-holders and shareholders. The need to balance gains and costs of debt financing emerged as they known as the static trade-off theory by Myers. It values the compant as the value of the firm if unleveled plus the present value of the tax shield minus the present value of bankruptcy and agency costs.

In summary, there is no universal theory of the debt-equity choice. Different views have been put forward regarding the financing choice.

Rima Devi Shrestha (Shrestha Rima Devi , Focus on capital structure , Pravaha Journal of Management, Nepal Commerce Campus , Kathmandu, 1993 vol. 10:40)

Rima Devi Shrestha conducted a study on the topic “Focus on capital Structure of selected and listed public companies “. The study used data from 19 companies, which covered different sectors such as manufacturing, finance, utility service and other allied areas. It was found that most of these companies have debt capital relatively very higher than equity capital. Consequently most of them are operating at losses to the extent that payment of interest on loan has been serious issues. Most of the losses are after charging interest on loan. It has suggested that the government has to consider the public enterprises in evaluation the relationship between use of debt and its impact on overall earning of public enterprises. So government should be sure in knowing how using debt capital will maximize return. It should develop a suitable capital structure guideline to make public enterprise aware of its responsibility to repay the debt schedules. Government has to analyze cost and risk rerun trade off. Thus, capital structure needs to be needs to be made more determinate by realistic analysis of cost. Lastly, she concluded that policy makers have to be careful in developing the suitable capital structure guidelines in making public enterprises as well as listed companies to be aware of financial accountability.

2.2.2. Review of Articles

Sudhir Poudyal (Poudyal S, “Capital Structure: It’s impact on value of a firm, Seminar on Emerging Issues and Challenges in Corporate Finance

in Nepal, Research Paper Submitted to Faculty of Management, TU, Kathmandu, Nepal, 2002)

“A study on Capital Structure: Its impact on value of a Firm, “an article by Sudhir Poudyal concentrated to examine the interrelationship between the objectives of achieving an optimal capital structure and to provide conceptual framework for the determination of the optimal capital structure.

For this, a hypothetical firm is constructed and different assumptions are laid down to analyze the effect of capital structure. Various statistical and financial tools like ratio analysis are used to extract reasonable figure for the hypothetical firm. It is observed that the minimum weighted average cost of capital, maximum value of the firm and price per share are attended at debt ratio of 30%.

Furthermore, if there is flexibility to select capital structure in any proportion, optimal capital structure range from 30% to 40%. An optimal capital structure would fulfill the interest of equity shareholder and financing requirement of a company as well as other concerned groups.

Paul Marsh (Marsh P, “The choice between Equity and Debt”. The Journal of Finance, vol XXVIII No. 1, March 1982)

In the article, “the Choice between Equity and Debt”, following issues are expressed

-) Whether companies are having the targeted debt ratio.
-) Whether they have similar targets form the composition of their debt.
-) Whether debt ratio or the choice of the finance instrument are influenced by other factors.
-) How accurately can we predict whether the company will issue equity or debt?

Then he suggested that

-) While planning their issues, company should consider figure as well as current debt ratio.

-) If the companies are looking at book value debt ratio, there will change during the interest issuing period of retentions and bank loans.
-) Any overall change in tax level could cause issuing companies to shift their performance towards either debt or equity.
-) Small companies rely on bank loan rather than long-term debt because of location, cost and problems of access to capital market.
-) Equity issues seem to be favorable as it provides strong share price and overall market performance.

2.5.3. Review of Thesis

Ms. Anjana Shah (Shah A, “ A study On the Capital Structure of Selected Manufacturing Companies (Nepal Lever Ltd., Bottlers Nepal Ltd., Sriram Sugar Mills, Jyoti Spinning Mills, Arun Vanaspati Udhyog)”, Unpublished Master’s Thesis, TU, Kathmandu, 2004)

Ms. Anjana Shah made the study with a purpose to access the debt serving capacity of the mentioned manufacturing companies, examining the relation between Return on equity and total debt, Return on equity and debt ratio, earning after tax and total debt and interest and earning before interest and tax.

Both financial tools such as ratio analysis as well as statistical tools such as correlation coefficient and regression analysis have been used as the methodology.

The study revealed that Nepal Lever Ltd. Is fully equity based and has not been using long term debt. The Bottlers Nepal Ltd. is free of long term debt because of improved cash flows and effective management. The Sriram Spinning Mills has 66.33% of assets financed with debt and hence there is less flexibility to the owners. The degree of Financial Leverage analysis of Jyoti Spinning Mills shows the failure of the company to gain expected profits. And the Arun Vanaspati Udhyog has a fluctuating debt equity ratio. Its long term debt is decreasing and only creditors make a small share of finance.

Ms. Manju Kumari Pandey (Pandey M.K., “The Study on capital Structure of Standard Chartered Bank Ltd. and Nepal Bangladesh Bank Ltd.” Unpublished Master’s Thesis, TU, Kathmandu, 2003)

The basic objective of the study made by Ms. Manju Kumari Pandey was to analyze the interrelationship of capital structure with various important variables such as earning per share, dividend per share and net worth of the joint venture banks and to provide suggestions to overcome various issues and gaps.

The study has used financial tools such as Ratio Analysis, EBIT-EPS analysis, overall capitalization rate, equity capitalization rate, total value calculation etc and Statistical tools such as Karl Pearson’s correlation and probable errors.

The study concluded that all the joint venture banks are using high percentage of total debt in raising the assets and all the banks are able to pay the interest. The study suggested that the bank must control total deposit and the bank must also control investment. The bank needs to reduce its expenses and control fluctuations in the earnings per share to improve its market price per share.

Mr. Kamal Bahadur Rajlawat (Rajlawat K.B., “The Capital Structure of Necon Air Limited”, Unpublished Master’s Thesis, TU, Kathmandu, 1999)

The main objective of the study is to analyze and examine the capital structure of Necon Air Limited, examine the financial position, highlight their growth and policies and review various previous studies relation to the study. The study used primary as well as secondary data for the analysis. The methodology used includes financial tools such as Ratio Analysis and statistical tools such as correlation coefficient and probable error. The study has found that Necon Air Limited has debt equity ratio higher than required. This higher debt capital is a serious implication forms the firm’s point of view. In this condition, the capital structure will lead to inflexibility in the operation of the firm as creditors would exercise pressure and interfere with management. Necon Air has raised debt from different commercial banks and has to pay heavy portion of profit as interest, so the payment of the interest will be hazardous when

profit is declining. So it is suggested that Necon Air Ltd should decrease its debt capital as far as possible. It has added that the ration of 2:1 is the best ratio for optimal capital structure.

A study conducted by Mr. Makar Bahadur Tamang entitled “Financial Performance Analysis of commercial Banks of Nepal” with reference to NIB and NABIL along with their financial strength and weakness concludes the findings such as,

-) The liquidity position of NIB is better than that of NABIL,
-) NABIL has utilized more debt than NIB,
-) The profitability ratio of NABIL is better than that of NIB in terms of ROA,
-) The EPS and DPS of NABIL are better than that of NIB,
-) There is positive correlation between total debt and net profit for both the banks etc.

On the basis of his findings, he recommended that both the banks should review their overall capital structure and investment portfolio to make better mix in capital structure. Moreover, he also suggested that both the banks should also give due consideration in improving their liquidity position.

A study conducted by Mr. Chutra Bahadur Gumanju entitled “A Comparative Study of Financial Performance Analysis of HBL and NIB” in 2004; with the general objective of examining and evaluating the financial performance of HBL and NIB concludes the findings such as,

-) The liquidity position of NIB is better than that of HBL,
-) The analysis of leverage ratio shows that HBL has higher ability in utilizing debts than NIB in terms of total debt to total equity, total assets and total capital ratio,
-) The profitability position of NIB is better than that of HBL in terms of ROA,
-) The EPS and DPS of HBL are better than NIB,
-) The correlation coefficient showed the positive relationship between total debt and net profit of HBL and NIB etc.

On the basis of analysis and evaluation of various financial and statistical tools, he recommended that both the banks should maintain standard current ratio. Moreover, he also suggested that both the banks should improve their capacity by improving effective organization structure and controlling capital structure and so on.

Mr. Kishor Poudel conducted a study entitled “A Study on Liquidity and Investment Position of Joint Venture commercial Banks in Nepal” with reference to EBL and NABIL in 2002. The main objective of his study was to examine the investment liquidity policy of EBL and NABIL. His major findings from the study includes,

-) In aggregate, the liquidity position of EBL is comparatively better than NABIL's. However, there are some instances where EBL has maintained more liquid funds than requirements,
-) EBL has not been successful for mobilization of funds on investments in comparison with NABIL. However, EBL has been able to mobilize most of the investment in government securities than NABIL's,
-) The growth rate of investment portfolio of NABIL is comparatively better than EBL. However, NABIL has given more priority to profitability than liquidity and so on.

CHAPTER 3

RESEARCH METHODOLOGY

Research methodology deals with research design, nature and sources of data, data collection procedure and method of data analysis. How research is accomplished depends on the researcher. Research methodology is the way of doing and completion of research work.

3.1. Research Design

Research design is the plan, structure and strategy of investigations conceived so as to obtain answers to research questions and to control variances. It included an outline of what the investigator will do from writing the hypothesis and their operational implications to the final analysis of data. The structure of the research is more specific, it is the outline, the scheme, and the standard of the operation of the variables. Diagrams that outline the variables and their relation and juxtaposition, structural schemes are building for accomplishing operational research purposes. Strategy, as used here, is also more specific than plan. In other words, strategy implies how the research objectives will be reached and how the problem encountered in the research will be tackled.

The method and definite technique, which guides to study and give ways to perform research work is known as research design. It is most necessary to complete the research and fulfill the objective of the research.

First of all information and data are collected. The important information and data are selected. Then data is arranged in useful manner. After that, data are analyzed by using appropriate financial and statistical tools. In analysis part, interpretation and comments are also made wherever necessary. Result and conclusion are given after analysis of data, recommendation and suggestion is also given, the thesis has been adopted from previous research works. Previous research works. Previous thesis styles and formats have been followed.

The main objective of research work is to evaluate the capital structure of Bank of Kathmandu and Himalayan Bank Limited. To complete this study, following design and format has been adopted.

3.2. Data Collection Procedure

3.2.1. Nature and Sources of Data

Mainly, the study is conducted on the basis of secondary data. The required data are extracted from balance sheets, profit and loss accounts and different financial schedules of concerned banks annual reports. Other supplementary data are collected from a number of institutions and regulation authorities like Nepal Rastra Bank, Nepal Stock Exchange Ltd., Security exchange board, etc. and from different related websites. This study is bases in the historical data of 5 year period.

3.2.2. The Population and Sample

There are all together 26 commercial banks functioning in Nepal, which is the size of the population. Out of them, 2 leading private banks, Bank of Kathmandu Ltd., and Himalayan Bank Ltd., are considered as samples to carry out this thesis.

3.3. Tools for Analysis

For the purpose of data analysis, various financial and statistical tools are used to achieve the objective of the study. The evaluation of data is carried out to the pattern of data available.

Different tools have been selected according to the nature of data as well as subject matter. The major tool employed for the analysis of the data is ratio analysis, which established the numerical relationship between two variables of the financial statement. Beside this, statistical tools are also used.

3.3.1. Financial Tools

Financial analysis is the process of identifying the financial strength and weakness of the firm by properly establishing relationship between the items of the balance sheet. In this study ratio analysis is used as the financial tools for the data analysis.

The financial tools that will be used for data analysis are:

-) Ratio analysis
-) Leverage analysis
-) Capital structure analysis
-) Traditional analysis
-) Modigliani-Miller's approach

3.3.1.1. Ratio Analysis

Ratio analysis is a technique of analyzing interpreting financial statements to evaluate the performance of an organization by creating the ratios from the figures of different accounts consisting in balance sheet and income statement. The qualitative judgment concerning financial performance of a firm can be carried out with the help of ratio analysis. Even though there are many ratios, only those ratios have been covered in this study, which are related to investment operation of the bank.

This study contains following ratios:

) Long Term Debt to Total Debt

The long term debt to total debt ratio measure the percentage of long term debt to total debt used in the companies. So it is the percentage of long term debt among the total debt employed by the company.

$$\text{Long Term Debt to Total Debt ratio} = \frac{\text{Long term debt}}{\text{Total Debt}} \times 100$$

) Long Term Debt to Capital Employed

This ratio is used to express the relationship between long term debt and capital employed by the firm. It shows the proportion of long term debt and shareholders' fund in the capital structure. This ratio is calculated as:

$$\text{Long Term Debt to Capital Employed} = \frac{\text{Long Term Debt}}{\text{Capital Employed}}$$

The higher ratio of long term debt to capital employed ratio shows the higher contribution of long term debt to the capital structure and vice versa.

) **Debt to Total Assets**

This ratio measure the extent to which borrowed funds have been used to finance the company's assets. It is related to calculate total debt to the total assets of the firm. The total debt included long term debt and current Liabilities. The total assets consist of permanent assets and other assets. It is calculated as:

$$\text{Debt to Total Asset Ratio} = \frac{\text{Total Debt}}{\text{Total Assets}} \times 100$$

The lower total debt to total assets ratio indicates that the creditors claim in the total assets of the company is lower than the owner's claim and vice versa.

) **Debt to Equity Ratio**

The debt equity ratio measures the long term components of capital structure. Long term debt and shareholder's equity are used in financing assets of the companies. So, it reflects the relative claims of creditors and shareholders against the assets of the firm. Debt to equity ratio indicated the relative proportions of debt and equity. The relationship between outsiders claim and owners' capital can be shown by debt equity ratio. It is calculated as:

$$\text{Debt to Equity Ratio} = \frac{\text{Long Term Debt}}{\text{Shareholder's Equity}} \times 100$$

This ratio is also known as debt to net worth ratio. A high debt equity ratio indicates that the claims of the creditors are greater than that of the shareholders or owners of the company.

) **Interest Coverage Ratio**

This ratio indicates the ability of the company to meet its annual interest costs or it measures the debt servicing capacity of the firm. It is determined by using following formula:

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

Hence, higher interest coverage ratio indicates the company's strong capacity to meet interest obligations. A firm always prefers interest coverage ratio because low interest coverage ratio is danger signal. Lower interest coverage ratio means the firm is using excessive debt and does not have an ability to offer assured payment of interest to the creditors.

) **Return on Total Assets**

Return on total assets ratio measures the profitability of bank that explains a firm to earn satisfactory return on all financial resources invested in the bank's assets. The ratio explains net income for each unit of assets.

The return on total assets ratio is calculated using the formula below:

$$\text{Return On Total Assets} = \frac{\text{Net Profit after Tax}}{\text{Total Assets}}$$

Higher ratio indicates efficiency in utilizing its overall resources and vice-versa. From the point of view of judging operational efficiency, rate of return on total assets is more useful measure.

) **Return on Shareholders Equity**

Shareholders are the owners of the company. To measure the return of shareholders, we use return on shareholders' equity. This ratio analyze whether the company has been able to provide higher return on investment to the owners or not. It is calculated as:

$$\text{Return on Shareholder's Equity} = \frac{\text{Net Profit After Tax}}{\text{Shareholder's Equity}}$$

A company's owners always prefer higher ratio of return on shareholders' equity. And higher ratio represents the higher profitability of the firm and vice versa.

) **Earning Per Share (ESP) Analysis**

The profitability of bank from the point of view of the ordinary shareholders is earning per share. The ratio explains net income for each unit of share. Earning per share of an organization gives the strength of the share in the market. It shows how much of the total earnings belong to the ordinary shareholders. EPS is calculated as:

$$EPS = \frac{\text{Net Income}}{\text{No of Shares Outstanding}}$$

) **Dividend Per Share (DPS) Analysis**

Dividend per share is calculated to know the share of dividend that the shareholders receive in relation to the paid up value of the share. A large number of present and potential investors may be interested in the dividend per share, rather than the earning per share. Therefore, an institution offering a high dividend per share is regarded as efficient in fulfilling shareholders expectations, which will also enable to increase the value of an institution.

Dividend per share is the earning distribute to ordinary shareholders divided by the number of ordinary shares outstanding, i.e,

$$DPS = \frac{\text{Total Dividend}}{\text{No of Ordinary Shares}}$$

3.1.2. Leverages Analysis

The degree of financial leverage as part of leverage analysis also reflects the leverage of the firm as similar as above ratios. The degree of financial leverage analyzes the burden of interest expenses and financial risk of the company. The degree of financial leverage in (DFL) is defined as the percentage change EPS due to a given percentage change in EBIT or this is a relationship between EBIT and EBT. In this study the following relationship will be used. It is expressed as:

$$DFL = \frac{\% \text{ Change in EPS}}{\% \text{ Change in EBIT}} \text{ or}$$

$$DFL = \frac{EBIT}{EBT}$$

The higher ratio of DFL indicates the higher financial risk as well as well as higher fixed charges of the company and vice versa.

3.1.3 Capital Structure Analysis

Various approaches have been developed under the relevancy of the capital structure, which helps to evaluate value of the firm, such as Net Income approach (NI), Net Operating Income approach (NOI), Traditional Method and MM approach. These all approaches are based on the market value. Practical usualness of other approaches are bit complex thus NI and NOI approaches are used in this study.

$$\text{Market value of Firm (V)} = \text{Market Value of Debt (B)} + \text{Market Value of Equity (S)}$$

$$\text{Cost of Overall Capitalization Rate (K)} = \frac{\text{Net Operating Income (EBIT)}}{\text{Total Market Value of The firm (V)}}$$

4.4.2. Statistical Tools

To meet the objectives of the study statistical tools are equally important. It helps us to analyze the relationship between two or more variables. In this research, the following statistical tools are used.

The statistical tools that will be used for data analysis are:

-) Mean
-) Standard Deviation
-) Karl Pearson's Coefficient of Correlation
-) Probable Error

3.2.1 Mean

The arithmetic mean is the sum of total values to the number of values in the sample.

3.2.2. Standard Deviation (S.D)

Standard deviation is an absolute measure of dispersion. The standard deviation is the square root of mean squared deviation from the arithmetic mean.

3.2.3. Correlation Coefficient (r)

Correlation coefficient measures the relationship between two and more than two variable is accompanied by the change in the value of the other. Or it indicates the direction of relationship among variables.

A method of measuring correlation is called Pearson's coefficient of correlation. It is denoted by 'r'. The correlation coefficient can be calculated by using following formula:

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

Where,

N = Number of observations

X And Y are variables

The decision criteria:

When,

$r = 0$, there is no relationship between the variables.

$r = 1$, the variables have perfectly positive correlated.

$r = -1$, the variables have perfectly negative correlated.

3.2.4. Probable Error (P.E.)

P.E. interprets the value of correlation co-efficient. It helps to determine applicability for the measurement of reliability of computed value of the correlation coefficient 'r'. It can be calculated as:

$$P.E. = 6 \times \frac{0.6745 \times (1 - r^2)}{\sqrt{N}}$$

Where,

r = correlation coefficient

N = number of pairs of observations.

If the value of r is less than the probable error there is no evidence of correlation, i.e. the value of r is not significant.

If the value of r is more than 6 times of probable error the coefficient of correlation is practically certain, i.e. the value of r is significant.

CHAPTER 4

DATA PRESENTATION AND ANALYSIS

This is the most important chapter of the study. In this chapter data collected is analyzed and presented mathematically by using financial and statistical tools.

It has already been said that the main objective of the study is to evaluate the capital structure of BOKL and HBL. Therefore to analyze the financial performance in respect to capital structure, various presentation and analysis presented in this chapter are according to analytical research design mentioned in the third chapter using various financial and statistical tools.

Again, it has been already stated that capital structure refers the combination of preference share, equity share capital including reserve and surplus as well as long-term debt. Similarly, optimal capital structure refers to that combination of funds, which maximizes the EPS, value of the firm and minimizes the overall cost of capital. Thus this chapter emphasizes the position of capital structure of BOKL and HBL. The analyses in this chapter are divided into following section, which are directly and indirectly related to capital structure.

-) Ratio Analysis
-) Analysis of Capital Structure
-) Leverage Analysis
-) Correlation Analysis

4.5. Ratio Analysis

4.4.1. Long Term Debt to Total Debt Ratio

The relationship between long term debt and total debt has a decisive impact on the financial structure of the companies. The relationship indicates what percentage of total debt is covered by long term debt of the firm. Normally firm uses short term and long term debt. Current liabilities and provisions are also needed during the operation of the firm. Simply dividing long-term debt by total debt can derive the relationship between the long term debt and total debt of the firm. The total debt includes all types of borrowed fund, current liabilities and

provisions. If the firm uses large amount of short term loans over current liabilities and provision in the larger amount, the percentage of long term debt will be low and vice versa. The higher ratio of long term debt to total debt indicates the higher claim of long term debt holders upon the total debt and the lower ratio indicates the higher portion of short term loans and current liabilities in the total debt of the firm. The amount of short term loans and current liabilities used depends upon the liquidity of that firm. This relationship of long term debt and total debt is presented in the following table along with the percentage change in that ratio to show the movement of trend individually. In addition the average (standard) ratios are also calculated to compare with each other. But the detailed calculation is shown in appendix 1.

$$\text{Long Term Debt To Total Debt Ratio} = \frac{\text{Long Term Debt}}{\text{Total Debt}} \times 100$$

Table No. 1

Long term Debt and Total Debt Position

Fiscal Years	Long Term Debt to Total Debt (%)	
	BOKL	HBL
2003/04	25.77	21.63
2004/05	31.51	24.59
2005/06	25.44	24.23
2006/07	23.82	27.29
2007/08	23.83	21.64
Average	26.07	23.88

Source: Appendix 1

The above calculation shows that the ratio of long term debt to total debt of BOKL is 25.77% in fiscal year 2003/04. This means company using 25.77% long term debt and remaining portion is contributed by the

current liabilities. This ratio of BOKL is then increased to 31.51% in fiscal year 2004/05. But, then after this ratio decreased to 25.44% in 2005/06 and again decreased to 23.82% & 23.83% in 2006/07 and 2007/2008 respectively. The company has 26.07% of average long term debt to total debt ratio.

In the case of HBL, it shows in the fiscal year 2003/04, the ratio is 21.63%, which indicates there is 21.63% contribution of long term debt in total debt and remaining portion is contributed by current liabilities. In the year 2004/05 and 2005/06 the ratio is increased to 24.59% & 24.23 respectively. Again increased to 27.29% in the year 2006/07 but decreased to 21.64% in the year 2007/08. The average ratio is 23.88%.

4.4.2 Long Term Debt to Capital Employed Ratio

The optimal capital structure has important relationship with the long term debt to capital employed ratio. This relationship suggests the portion of long term debt and capital employed used in the capital structure of the firm. This ratio highlights the need of long term debt with capital employed by the firm. Long term debt includes the debt, which matures in more than one accounting period whereas capital employed includes long term debt and shareholders equity of the firm. The relationship of long term debt and capital employed can be analyzed by establishing the ratio between them. This ratio is called the long term debt to capital debt ratio. Larger the ratio, larger the proportion of long term debt in the capital employed and vice versa. This ratio can be calculated by dividing the long term debt with capital employed by the firm. This ratio is also known as debt to permanent capital ratio, whereas permanent capital means total assets minus current liabilities. The long term debt to permanent capital ratio is presented in the following table:

$$\text{Long Term Debt to Capital Employed Ratio} = \frac{\text{Long Term Debt}}{\text{Capital Employed}}$$

Table No.2

Comparative Long term Debt to Capital Employed Ratio

Fiscal Years	Long Term Debt to Capital Employed	
	BOKL	HBL
2003/04	0.78	0.79
2004/05	0.80	0.81
2005/06	0.78	0.79
2006/07	0.77	0.80
2007/08	0.74	0.74
Average	0.77	0.79

Source: Appendix 2

The above table shows that BOKL has fluctuating trend of long term debt to capital employed ratio. In the F/Y 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 the ratios are 0.78, 0.80, 0.78, 0.77 and 0.74 respectively. The average ratio is 0.77.

Similarly HBL has also fluctuating trend of long term debt to capital employed ratio. In the FY 2003/04, the ratio is 0.79. That means the contribution of long term debt in total capital employed is 79% and owner of the companies contributed remaining 21%. In the following year 2004/05, the ratio increases to 0.81. In the FY 2005/06, 2006/07 and 2007/008 the ratios are 0.79, 0.80 and 0.74 respectively. The average of five years data shows a ratio of 0.79.

4.4.3. Debt to Total Assets Ratio

Debt to total assets ratio express the relationship between creditors fund and total assets. It is also the leverage ratio, which is generally called the debt ratio. This type of capital structure ratio is a variant of debt equity ratio. Calculating debt to total assets is one calculation approach of the debt to capital ratio. Debt includes all loans and total assets include all types of assets of the firm. It measures the percentage of total funds provided by creditors.

This ratio can be calculated by simply dividing long term debt by the total assets of the firm.

$$\text{Debt Total Assets Ratio} = \frac{\text{Long term Debt}}{\text{Total Assets}}$$

Table No.3

Comparative Debt to Asset Ratios

Fiscal Years	Long Term Debt to Total Assets	
	BOKL	HBL
2003/04	0.24	0.21
2004/05	0.29	0.23
2005/06	0.24	0.23
2006/07	0.22	0.26
2007/08	0.22	0.20
Average	0.24	0.23

Source: Appendix 3

The above table shows that the long term debt to total assets ratios of BOKL are 0.24,0.29, 0.24 ,0.22 and 0.22 in the F/Y 2003/04 ,2004/05, 2005/06, 2006/07 and 2007/08 respectively. The average ratio is 0.24.

Similarly, the long term debt to total assets ratios of HBL are 0.21, 0.23, 0.23, 0.26 and 0.20 in the F/Y 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 respectively. The average ratio is 0.23.

4.4.4. Debt Equity Ratio

Debt equity ratio is used to show the relationship between borrowed funds and owners' capital. It reflects the relative claims of creditors and shareholders against the assets of the firm. It is an important tool for the financial analysis to appraise the financial structure of a firm. The ratio reflects the relative contribution of owners and creditors capital of business in its financing. In other word, this ratio exhibits the relative proportions of capital contributed by owners and creditors. Debt equity ratio can be calculated in the basis of shareholders' equity and long term debt. Shareholders' equity includes reserve and accumulated profit, preference share and equity share capital. Where long term debt includes total debt minus short term debt or current liabilities, here debt equity ratio is also computed by simply dividing long term debt of the firm by shareholders' equity. The high D/E ratio shows the large share of financing in the capital by the creditors then the owners or it also reflects that the creditors claim is higher against the assets of firm and vice versa. D/E ratios of concerned companies are shown in the following table that is referred from appendix 4.

$$\text{Debt Equity Ratio} = \frac{\text{Long Term Debt}}{\text{Shareholder's Equity}}$$

Table No. 4

Comparative Debt – Equity Ratios

Fiscal Years	Debt to Equity	
	BOKL	HBL
2003/04	3.50	3.83
2004/05	3.99	4.19
2005/06	3.47	3.80
2006/07	3.30	3.99
2007/08	2.91	2.90
Average	3.43	3.74

Source: Appendix 4

The debt equity ratio and average ratio has been calculated in the above table. Five years data have been presented here.

The table shows that D/E ratio of BOKL is 3.50 in fiscal years 2003/04. Then afterwards the D/E ratios are 3.99, 3.47, 3.30 and 2.91 in the years 2004/05, 2005/06, 2006/07 and 2007/08. The average D/E ratio of BOKL is 3.43.

Calculated value of HBL shows that D/E ratios of HBL has fluctuating trend. In the fiscal year 2003/04, D/E ratio is 3.83 which increase to 4.19 in the fiscal year 2004/05. The ratio decreases to 3.80, 3.99 and 2.90 in the following year 2005/06, 2006/07 and 2007/08 respectively. The average D/E ratio of HBL is 3.74.

4.4.5. Interest Coverage Ratio

The interest coverage ratio is useful tool to measure long term debt serving capacity of the firm. It is also called interest earned ratio. Interest is fixed charges of the companies, which is charged in long term and short term loans. Generally, interest coverage ratio measured the debt serving capacity of a firm and it is concerned with long term loans. It shows how many times the interest charges are covered by EBIT out of which they will be paid. This ratio uses the concept of net profit before tax because interest is tax deductible or tax is calculated after paying interest on loan. This ratio examines the interest paying capacity of the firm by how many times the interest charges are covered by EBIT.

Interest coverage ratio is calculated dividing EBIT by interest. So, it is necessary to analyze EBIT and interest. This ratio is useful to measure long term debt serving capacity of the firm. The high ratio shows that the firm may imply unused debt capacity and the firm has greater capacity to handle fixed charges liabilities of creditors. Whereas, low ratio is a signal that the firm is using excessive debt and does not have the ability to offer assured payment of interest to the creditors. The calculated interest coverage ratios of two companies are presented in the following table.

$$\text{Interest Coverage Ratio} = \frac{\text{EBIT}}{\text{Interest}}$$

Table No.5

Comparative Interest Coverage Ratio

Fiscal Years	Interest Coverage Ratio (Times)	
	BOKL	HBL
2003/04	1.65	1.86

2004/05	1.85	1.93
2005/06	1.98	2.04
2006/07	2.13	1.93
2007/08	2.26	2.15
Average	1.97	1.98

Source: Appendix 5

In the above table, the average ratio of BOKL is 1.97, which implies the number of times the interest covered by its EBIT. The interest coverage ratio of BOKL shows an increasing trend. The interest coverage ratio of BOKL in FY 2003/04 is 1.65 times, which increases to 1.85, 1.98, 2.13 and 2.26 times in 2004/05, 2005/06, 2006/07 and 2007/08 respectively.

In case of HBL, the interest coverage ratio of HBL shows a fluctuating trend. The interest coverage ratio of HBL in F/Y 2003/04 is 1.86 times, which increases to 1.93 times in 2004/05 and 2.04 times in 2005/06. Then the ratio decreases to 1.93 times in F/Y 2006/07 but increases to 2.15 times in F/Y 2007/08. The average ratio of HBL is 1.98.

4.4.6. Return on Total Assets

Return on total assets ratio measures the profitability of bank that explains a firm to earn satisfactory return on all financial resources invested in the banks assets. The ratio explains net income for each unit of assets.

Higher ratio indicates efficiency in utilizing its overall resources and vice versa. From the point of view of judging operational efficiency, rate of return on total assets is more useful measure.

The return on total assets ratio is calculated using the formula below:

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

Table No. 6

Position of comparative Return on Total Assets

Fiscal Years	Return on Total Assets	
	BOKL	HBL
2003/04	1.34	1.06
2004/05	1.42	1.11
2005/06	1.65	1.55
2006/07	1.80	1.47
2007/08	2.04	1.76
Average	1.65	1.39

Source: Appendix 6

The above table shows the comparative position of return on total assets of the two commercial banks. From the table, the ROA of BOKL in the years 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 are 1.34, 1.42, 1.65, 1.80 and 2.04 respectively and the average return is 1.65.

Similarly, the ROA of HBL in the years 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 is 1.06, 1.11, 1.55, 1.47 and 1.76 respectively and the average return is 1.39.

4.4.7. Return on Shareholders' Equity

Shareholders' fund represents that part of long term source of funds, which is collected by issuing equity shares and preferences shares. Shareholders are actually the owners of the company. Shareholders have ultimate claim in the return of the company. To measure the return earned by shareholders, return on shareholders equity is used or this ratio is calculated to find out the profitability on the owners' capital or investment.

If the company's earning is good, shareholders' earning is greater than outside investors because they are ultimate owners and they are

bearing high risk as well. But outside investors return before the owners that is fixed. Shareholders get the return after paying the fixed interest charge to the creditors and tax to the government. Earning after tax (EAT) is the profit of the shareholders. Therefore this ratio is calculated on the basis of EAT. In this study, the sampled companies have not employed the preference share thus it includes only return on shareholders' equity.

The high ROSHE represents the high profitability of the firm and vice versa. So, high ROSHE is desirable from the point of view of the owners of the firm. This ratio can be calculated simply by dividing earning after tax by shareholders' equity, which is presented in the following table.

$$\text{Return on Shareholder's Equity} = \frac{\text{Net Profit after Tax}}{\text{Shareholders' Equity}}$$

Table No.7

Position of comparative ROSH

Fiscal Years	Return on Shareholder's Equity	
	BOKL	HBL
2003/04	19.59	19.87
2004/05	19.36	19.99
2005/06	24.11	25.90
2006/07	26.72	22.91
2007/08	26.94	25.30
Average	23.34	22.79

Source: Appendix 7

Above table exhibits ROSHE of sampled companies. In case of BOKL, in the fiscal year 2003/04, the ratio is 19.59% that implies that one rupee investment by shareholders' equity earned 19.59 paise in one year. In the fiscal year 2004/05 it is decreased to 19.36%. Similarly in the fiscal year 2005/06 the ratio is 24.11%, in the year 2006/07 the ratio is 26.72% and in the year 2007/08 the ratio is 26.94% and average ratio is 23.34%.

Similarly in the case of HBL, in the fiscal year 2003/04 the ROSHE is 19.87. In the following year it is 19.99% increased by 0.12%. In the fiscal years 2005/06, 2006/07 and 2007/08 the ratios are 25.90%, 22.91% and 25.30% respectively. Average ratio is 22.79%.

4.4.8. Earning per share

The profitability of bank from the point of view of the ordinary shareholders' is earning per share. The ratio explains net income for each unit of share. Earning per share of an organization gives the strength of the share in the market. It shows how much theoretically belongs to the ordinary shareholders. The EPS is calculates as below:

$$\text{Earning Per Share} = \frac{\text{Net Income}}{\text{No. of Shares Outstanding}}$$

Table No.8

Position of Comparative EPS

Fiscal Years	Earning Per Share	
	BOKL	HBL
2003/04	27.50	49.05
2004/05	30.10	47.91
2005/06	43.67	59.24
2006/07	43.50	60.66

2007/08	59.94	62.74
Average	40.94	55.92

Source: Appendix 8

The earnings per share of BOKL are 27.50, 30.10, 43.67, 43.50 and 59.94 in the years 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 respectively. The average EPS is 40.94. Here, the overall trend is increasing. The highest EPS is 59.94 in the year 2007/08.

Similarly, the earning per share of HBL in the years 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 are 49.05, 47.91, 59.24, 60.66 and 62.74 respectively. And the average EPS is 55.92. Here, EPS is in fluctuating trend. The highest EPS is 62.74 in the year 2007/08.

4.4.9. Dividend Per Share (DPS) Analysis

Dividend per share is evaluated to know the share of dividend that the shareholders receive in relation to the paid up value of the share. Dividend per share is the earning distributed to ordinary shareholders divided by the number of ordinary shares outstanding, i.e

$$\text{Dividend Per Share} = \frac{\text{Total Dividend}}{\text{No. Of Ordinary Shares}}$$

Table No.9
Position of comparative DPS

Fiscal Years	Dividend Per Share	
	BOKL	HBL
2003/04	10.00	0.00
2004/05	15.00	11.58
2005/06	18.00	30.00
2006/07	20.00	15.00

2007/08	2.11	25.00
Average	13.02	16.32

Source: Appendix 9

The dividends per share of BOKL are Rs. 10.00, Rs. 15.00, Rs. 18.00, Rs. 20.00 and Rs 2.11 in the years 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 respectively. The average DPS is Rs. 13.02. The highest DPS is Rs. 20.00 in the year 2006/07 whereas it has paid lowest dividend of Rs.2.11 in the year 2007/08.

Similarly, HBL shows a DPS of Rs.00.00, RS.11.58, Rs.30.00, Rs.15.00 and Rs.25.00 in the years 2003/04, 2004/05, 2005/006, 2006/07 and 2007/08 respectively. The average DPS is Rs.16.32. It paid a highest dividend of Rs.30.00 in the year 2005/06. In the year 2003/04, the company paid no dividend at all.

4.5. Capital Structure

4.4.1. Net Income (NI) Approach

Net income (NI) approach is known as dependent hypothesis of capital structure. The essence of this approach is that the firm can reduce its cost of capital by using debt and the reduction in the cost of capital leading to an increase in the total valuation of the firm through an increase in the degree of leverage. This theory assumes that the cost of debt and cost of equity remain constant as change in the firm's capital structure. In other words, the firm can increase its value or lower the overall cost of capital by increasing the proportion of debt in the capital structure. It gives attention on overall capitalization rate. According to this theory, optimum capital structure is that, where the total value of the company is highest and the overall Capitalization rate is lowest. The overall capitalization rate can be calculated simply by dividing EBIT by the value of the company. Calculated rates are presented below that is referred from appendix 10.

Table No. 10
Comparative Position of Overall Capitalization Rate

Fiscal Years	BOKL		HBL	
	Cost of Capital (Ko)	Value of Firm (in million Rs.)	Cost of Capital (Ko)	Value of Firm (in Million Rs.)
2003/04	12.91%	3647.27	9.53%	9574.68
2004/05	9.15%	4872.26	8.75%	12387.63
2005/06	8.89%	6850.18	8.69%	15204.40
2006/07	6.27%	11530.35	6.50%	22831.39
2007/08	5.23%	18076.97	6.48%	27351.17
Average	8.49%	8995.41	7.99%	17469.85

Source: Appendix 10

Above computed overall capitalization rate of BOKL shows that the costs are 12.91%, 9.15%, 8.89%, 6.27% and 5.23% in the fiscal years 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 when the values of the firm are Rs.3647.27, 4872.26, 6850.18, 11530.35 and 18076.97 million respectively. The average cost of capital is 8.49% at an average value of Rs.8995.41 million.

Similarly, in the case of HBL, the costs are 9.53%, 8.75%, 8.69%, 6.50% and 6.48% in the fiscal years 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 respectively when the values of the firm are Rs.9574.68, Rs.12387.63, Rs.15204.40, Rs.22831.39 and 27351.17 million respectively. The average cost is 7.99% at an average value of Rs.17469.85 million.

4.4.2. Net Operating Income (NOI) Approach

It is an independent hypothesis of capital structure decision of the firm and which is irrelevant to the value of firm and an overall cost of capital. Change in leverage will not lead to any change in the total value of the firm and market price of share, as the overall cost of capital is independent of the degree of leverage. The increase in leverage leads to an increase in financial risk of the ordinary shareholders. To minimize the financial risk, the shareholders want a higher return on their investment.

Increases in Ke are exactly offset by using cheaper debt fund keeping Ko constant. So equity capitalization rate Ke is calculated here by simply dividing EBT by the market value of common equity, which is presented in the following table. Detail calculation of Ke is presented in the appendix 11.

Table No. 11
Comparative Position of Effect of Debt on Equity Capitalization Rate

Fiscal Years	BOKL		HBL	
	Cost of Equity (Ke)	Long Term Debt (in million Rs)	Cost of Equity (Ke)	Long Term Debt (in million Rs)
2003/04	13.5%	2279.71	9.3%	5070.18
2004/05	10.2%	2878.87	8.8%	6467.43
2005/06	7.6%	2909.75	7.9%	6710.20
2006/07	4.6%	3237.17	5.0%	8561.13
2007/08	3.7%	3903.18	4.7%	7283.87
Average	7.9%	3041.74	7.1%	6818.56

Source: Appendix 11

The equity capitalization rates of BOKL in the fiscal years 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 are 13.5%, 10.2%, 7.6%, 4.6% and 3.7% respectively. And their respective long term debts are Rs. 2279.71, Rs.2878.87, Rs.2909.75, Rs.3237.17 and 3903.18 million respectively. The average cost is 7.9% at an average long term debt of Rs. 3041.74 million.

The equity capitalization rates of HBL are 9.3%, 8.8%, 7.9%, 5.0% and 4.7% in the fiscal years 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 respectively. And the long term debts are Rs. 5070.18, Rs. 6467.43, Rs. 6710.20, Rs. 8561.13 and Rs. 7283.87 million respectively. The average cost is 7.1% at an average long term debt of Rs. 6818.56million.

4.5. Leverage Analysis

Leverage and capital structure are closely related concepts linked to cost of capital and therefore capital budgeting decision. Leverage results from the use of fixed cost assets or tends to magnify return to the firm's owners. Changes in leverage result in changes in level of return and associated risk. Generally, increase in leverage result in increase in return

and risk, where as decrease in leverage result in decreased return and risk. The amounts of leverage in the firm's capital structure the mix of long term debt and equity maintained by the firm can significantly affect its value by affecting return and risk. Because of its effect on value, the financial manager must understand how to measure and evaluate leverage when attempting to create the best capital structure.

Generally, leverage refers to the use of special force of power to have more than normal results from a particular action. Similarly in financial term it is used to describe about utilization of funds for which the firm has to pay fixed cost and to have more return than normal having more risk as well. Leverage is used to boost owner's returns, but it is used at the risk of increasing losses, if the firm's economics fortune declines. Thus gain and losses are magnified by leverage, and the higher the leverage employed by a firm, the greater will be the volatility of its returns. There are three types of leverages: operating leverage, financial leverage and combine leverage. Operating leverage is the function of fixed cost, contribution margin and sales volume. Financial leverage is the relationship between EBIT and EBT and combined leverage is the combined effect of operating leverage and financial leverage. The operating leverage indicates the impact of changes sales on operating income and financial leverage exist when the capital structure if the firm composed debt capital. Financial leverage is related to the capital structure of the firm. So, financial leverage is the relevant issue of this study, which is explained in this section.

4.4.1. Analysis Of Financial Leverage

When the company employs debt or other fund carrying fixed charges i.e. interest in the capital structure, financial leverage exists. If the financial charge is high the company can have advantage of tax shield but it will affect to owners' return i.e. net profit as well. Financial leverage explains the relationship between earning before interest and taxes and net profit of the company.

Two methods: either dividing percentage change into EPS by percentage change into EBIT or dividing percentage change into EBT by EBIT can calculate degree of financial leverage. In this analysis of financial leverage second method is chosen. High the financial leverage, high will

be the financial risk and also high will be the shareholders' return. The degree of financial leverage of sampled companies is presented in the following table.

$$DFL = \frac{\% \text{ Changes In EPS}}{\% \text{ Changes IN EBIT}} = \frac{EBIT}{EBT}$$

Table No. 12

Comparative Degree of Financial Leverage

Fiscal Years	Degree of Financial Leverage	
	BOKL	HBL
2003/04	2.55	2.17
2004/05	2.18	2.08
2005/06	2.02	1.96
2006/07	1.88	2.07
2007/08	1.79	1.87
Average	2.08	2.03

Source: Appendix 12

Above calculated DFL of BOKL is in decreasing trend. The DFL of BOKL in the fiscal years 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 is 2.55, 2.18, 2.02, 1.88 and 1.79 respectively. The average DFL of BOKL is 2.08 times.

Similarly, the DFL of HBL in the fiscal years 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 is 2.17, 2.08, 1.96, 2.07 and 1.87 respectively. The average DFL of HBL is 2.03 times.

4.5. Correlation Analysis

Correlation analysis enables us to have an idea about the degree and direction of the relationship between the two or more variables. The correlation is a statistical tool which studies the relationship between two or more variables and correlation analysis involves various methods and techniques used for studying and measuring the extent of the relationship between the two or more variables. It is denoted by 'r'. However, it fails to reflect upon the cause and effect relationship between the variables. Although there are three types of correlation i.e. simple, partial and multiple but here simple correlation based on 'Pearson's coefficient of correlation' is focused. In the following section between different variables are calculated and presented of the sampled companies.

-) Total debt and shareholders equity
-) Long term debt and earning per share
-) EBIT and interest
-) EBIT and DPS

4.4.1. Total Debt and Shareholders Equity

The relationship between total debt (TD) and shareholders equity (SHE) have been shown in the following table below. The total debt includes all types of long term borrowed funds, current liabilities and provisions. Whereas shareholders' equity includes share capital, reserve and surplus. This correlation indicates whether there is positive or negative correlation between TD and SHE and their respective probable error is also presented. P.E. interprets the value of correlation co-efficient. It helps to determine for the measurement of reliability of the computed value of the correlation coefficient (r). Detail calculations are presented in the appendix 13.

Table No.13

Comparative Correlation Coefficient between TD and SHE with Probable Error

BOKL		HBL	
Correlation	Probable	Correlation	Probable

Coefficient (r)	Error (P.E.)	Coefficient (r)	Error (P.E.)
0.982	0.065	0.99	0.036

Source: Appendix 13

Karl Pearson's correlation coefficient between total debt and shareholders equity of BOKL is 0.982. There is positive correlation between TD and SHE. The probable error (P.E) of BOKL is 0.065. PE is less than correlation coefficient (r).

Similarly, the correlation coefficient of HBL is 0.99 and positive. The probable error is 0.036, which is less than correlation coefficient (r).

4.4.2. Long term Debt and Earning Per Share

Long term debt is the source of long term financing or long term funds. Company should pay interest for this debt capital. Where as earning per share (EPS) is earning of a share of a firm form one year business. EPS has positive relationship with company's earning. In this section the relationship between these two variables has been shown using Karl Pearson's correlation coefficient method. It tries to analyze that the increment in LTD leads to increment in the EPS or not. The calculated correlation and their respective probable error have been shown in the following table referred from appendix14.

Table No. 14

Correlation Coefficient between Long Term Debt (LTD) and Earning Per Share (EPS) and their respective Probable Error

BOKL		HBL	
Correlation Coefficient (r)	Probable Error (P.E.)	Correlation Coefficient (r)	Probable Error (P.E.)
0.93	0.25	0.74	0.82

Source: Appendix 14

In the basis of above table, correlation coefficient between long term debt and earning per share of BOKL is 0.93, which implies that there is positive correlation between LTD and EPS. The probable error (P.E) of BOKL is 0.25, which is less than correlation coefficient (r).

In the case of HBL, the correlation coefficient is 0.74, which implies that there is positive correlation between LTD and EPS. The probable error (PE) of HBL is 0.82. PE is greater than correlation coefficient (r).

4.4.3. EBIT and Interest

Long term debt holders get the interest as return and EBIT is operating profit of the company. Here correlation coefficient of interest and EBIT has presented of concerned companies to analyze whether there is positive or negative correlation between interests and operating profit, those are calculated on the basis of Karl Pearson’s correlation coefficient. Following table shows the relationship between these variables of sampled companies. And to check the significance of these calculated correlations. PE is also presented, which is referred from appendix: 15

Table No. 15

Correlation Coefficient between EBIT and Interest and their respective Probable Error

BOKL		HBL	
Correlation Coefficient (r)	Probable Error (P.E.)	Correlation Coefficient (r)	Probable Error (P.E.)
0.98	0.072	0.99	0.036

Source: Appendix 15

In the above table, correlation coefficient of BOKL is found to be 0.98, i.e. there is positive correlation between Interest and EBIT. PE of

respected correlation is 0.072, which is less than correlation coefficient (r).

Similarly, in the case of HBL, the correlation coefficient between Interest and operating profit is 0.99. It is positive and closer to 1. The probable error of respected correlation is 0.036, which is less than correlation coefficient (r).

4.4.4. EBIT and DPS

Shareholders get the dividend as return and EBIT is operating profit of the company. Here, correlation coefficient of EBIT and DPS has been presented of concerned companies to analyze whether there is positive or negative correlation between dividends and operating profit. Following table shows the relationship between these variables of sampled companies. And to check the significance of these calculated correlations. PE is also presented, which is referred from appendix: 16

Table No.16

Correlation Coefficient between EBIT and DPS and their respective Probable Error

BOKL		HBL	
Correlation Coefficient (r)	Probable Error (P.E.)	Correlation Coefficient (r)	Probable Error (P.E.)
-0.47	1.41	0.73	0.85

Source: Appendix 15

In the above table, correlation coefficient of BOKL is found to be -0.47, i.e. there is negative correlation between EBIT and DPS. PE of respected correlation is 1.41, which is greater than correlation coefficient (r).

Similarly, in case of HBL, the correlation coefficient between operating profit and dividend is 0.73. It is positive. The PE of respected correlation is 0.85, which is greater than correlation coefficient (r).

4.5. Major findings of the Study

The percentage of total debt of the firm covered by long term debt is indicated by long term debt to total debt ratio. BOK has 26.07% of average long term debt to total debt ratio. Similarly HBL has average ratio of 23.88%. In two cases, the total debt is contributed by current liabilities to a large extent. The analysis of two companies reveals the fluctuating trend of long term debt to total debt ratio. Among the two, HBL has used minimum long term debt in comparison to BOKL.

The analysis shows that among the two banks, BOKL has least and HBL has the highest long term debt to capital employed ratio of 0.77 and 0.79 respectively. This indicates that HBL is using more long term debt financing as its capital in comparison to BOKL.

The average debt to total assets ratio of BOKL & HBL are 0.24 and 0.23 respectively. The long term debt for financing used by BOKL is higher in comparison to HBL.

The debt equity ratio shows the claim of creditors on the total asset of the company. The trend analysis shows decreasing trend in BOKL where as the trend analysis of HBL shows fluctuating trend. The average debt equity ratio of BOKL is 3.43, which shows that the creditors have more than 3times claims on the assets of BOKL than that of owners of the company. It also indicates that the company has used large amount of debt as financing and has larger amount to be paid as interest on debt. HBL has the highest debt equity ratio among the two with the average ratio of 3.74. It implies that the claim of creditors is 3.74times, which is higher than that of owners of the company. The ratio shows that HBL has used large amount of debt than equity for financing.

The analysis shows that both the sample companies BOKL and HBL are able to pay the interest amount. Among the two, interest coverage ratio of BOKL is in increasing trend with the average of 1.97, which shows that the firm is able to pay the interest amount. In case of HBL, the average interest coverage ratio is of 1.98 which is highest in comparison to BOK.

In comparison, BOKL and HBL have the average return on asset of 1.65 and 1.39 respectively. The overall return on asset of HBL is

fluctuating in trend, whereas return on asset of BOK is in increasing trend, which is a good sign.

The return on shareholder's equity of BOKL and HBL is fluctuating over the period of five years. The average of return of BOKL is 23.34 which indicates that the shareholders earned Rs. 23.34 paisa investing rupee one. By analyzing the average return, we can conclude that return earned by the shareholders equity of HBL is lowest among two companies i.e. 22.79.

The earning per share explains net income for each unit of share. It shows the market position of the firm. The average earning per share of BOKL is Rs.40.94. The average earning per share of HBL is Rs.55.92. Among the two, HBL has the highest earning per share.

Dividend per share is the earning distributes to ordinary shareholders. The analysis shows among the two banks HBL has paid the highest average dividend of Rs.16.32 and BOK has paid the least of Rs. 13.02.

Under the NI approach, the interest rate and the cost of equity are dependent of the capital structure. With the increased use of leverage, overall cost of capital declines and the total value of firm rise. From the calculations, HBL has the highest optimum capital structure because it has the least cost of capital and the highest value of the firm.

Net operating income (NOI) approach is an independent hypothesis of capital structure. Any changes in leverage will not lead to any change in the total value of the firm and market price of share. From the position of average cost of equity, it is found that HBL has an average cost of equity of 7.1% with an average long-term debt of Rs.6818.56million, where BOKL has average cost of equity of 7.9% at long term debts of Rs.3041.74million. So we can say that HBL has the optimum capital structure compared to BOKL.

The financial leverage analysis helps to evaluate the financial risk of the firm. The average degree of financial leverage of BOKL and HBL are 2.08 and 2.03 respectively, which concludes that BOKL is bearing the highest financial risk in comparison to HBL.

BOKL has positive correlation between TD and SHE of 0.982. Likewise, the probable error is 0.065, less than correlation coefficient, i.e. relationship between TD and SHE is significant. In case of HBL the correlation coefficient is 0.99 closer to 1 and positive. The P.E of HBL is 0.036 which shows that the value of r is significant.

Correlation coefficient between long term debt and earning per share of BOKL and HBL shows 0.93 and 0.74 respectively and P.E between long term debt and earning per share are 0.25 and 0.82 respectively. In case of BOKL, the value is significant as P.E is less than (r) but in case of HBL the value is insignificant as P.E greater than (r).

The correlation coefficient between EBIT and interest of both banks are positive. In case of both BOKL and HBL, the value is significant as (r) is greater than P.E.

The correlation coefficient between EBIT and DPS of BOKL is -0.47 and 6PE is 1.41 indicating negative and insignificant correlation. In case of HBL the correlation is positive i.e.0.73 and less than probable error i.e.0.85 indicating insignificant correlation.

CHAPTER 5

SUMMARY, CONCLUSION AND RECOMMENDATION

This is the concluding chapter of the study. This chapter is divided into three sections: Summary, Conclusions and Recommendations. In this chapter, the study is summarized in brief. In the last section of this chapter some recommendations is given, which are useful to stakeholders and to concerned companies as well. They can use these recommendations to take some corrective actions to draw decisions.

5.3. Summary

In this study, to analyze about capital structure, two commercial banks have been chosen. These banks are Bank of Kathmandu Ltd. and Himalayan Bank Ltd. Both banks are listed in NEPSE. To make the study more reliable, the whole study has been divided into five chapters. The summaries of each chapter are presented following.

First chapter: First chapter starts with historical background of the study. In this chapter an introduction to banking industry in Nepal, introduction of the banks is selected for the study, description of the capital structure is presented briefly. This study endeavors to evaluate capital structure of commercial banks with reference to Bank of Kathmandu Ltd. and Himalayan Bank Ltd. The main questions presented as the 'focus of the study' are what is the condition of capital structure of the commercial banks of Nepal? Whether or not they are using an appropriate financial mix? If not, what may be the suggested to improve or to make appropriate capital structure? Does capital structure help to maximize the value of the firm in the context of Nepalese firms? The statement of the problems deals with the effect of the capital structure on the growth of the firm, the extent to which the capital structure policy is followed by the commercial banks, and the main problems faced by the commercial banks in developing and implementing the capital structure.

The main objectives of the study presented are to evaluate the role of capital structure on the growth of the commercial banks in Nepal, to

analyze the effectiveness and efficiency of capital structure of the commercial banks in Nepal and to analyze the relationship of capital structure with variables such as earning per share, dividend per share and net worth.

Finally, "significance of the study" and "limitations of the study" are also presented in the first chapter.

Second chapter: In this chapter various books, research studies and articles concerned with the capital structure have been reviewed and presented as the review of literature to make the concept of capital structure more clear. Capital structure theories such as NI approach, NOI approach, MM model and other theoretical approaches to establish appropriate capital structure are described in this chapter. Review of different management journals, articles as well as related Nepalese studies have been presented as well.

Third chapter: In this chapter the steps to adopt realistic study needed for the researches have been presented. The methodology, researcher can use to get appropriate guidelines and knowledge about the various sequential steps to adopt a systematic analysis has been explained in this chapter. Most of the data used in this study are secondary in nature that is annual reports provided by concerned companies. Five years data are taken as sample years and are analyzed by using financial and statistical tools such as ratio analysis, leverage analysis, capital structure analysis, correlation analysis, probable error etc. Methods, which the study is going to use, are exhibited in this chapter.

Fourth chapter: The data mentioned in the third chapter are presented and analyzed in this chapter using methods mentioned in the chapter third above such as ratios, leverage analysis, correlations, and probable errors and capital structure analysis. Detail calculations presented in this chapter are shown as appendix, which is presented after fifth chapter.

Fifth chapter: In this chapter summary of the study are presented in brief to understand the whole get about of the study instantly after which conclusion of the study with recommendation are presented.

5.3. Conclusion

In this study, comparison among concerned banks has been done taking data of these banks. To evaluate the capital structure, different types of tools and technique are used. The following conclusion can be drawn.

Long term debt to total debt ratio shows that all of the sample banks have fluctuating trend of long term debt to total debt ratio. In average BOKL has 26.07% of average long-term debt to total debt ratio, which means that about 73.93% of the total debt is contributed by current liabilities. Similarly, HBL has the average ratio of 23.88 % which means that about 76.12% of the total debt is contributed by current liabilities.

Long term debt to capital employed ratio highlights the portion of fund financed by long term debt in the capital employed by the firm. The data shows BOKL has the average ratio of 77%. Similarly HBL has the average ratio of 79%. We can conclude that both of the companies have employed large amount of long term debt to capital employed and among the two in average HBL has employed more of the long term debt in the capital than the BOKL.

Debt to total assets ratio express the relationship between creditors fund and total assets. The debt ratio or debt to total assets ratio of BOKL and HBL are 0.24 and 0.23 respectively. It means BOKL has used more long term debt for financing in comparison to HBL.

Debt equity ratio shows in the BOKL the creditors have 3.43times claims on the assets, which is very lowest among the two banks. In case of HBL, the claim of creditors is 3.74times, which is higher than that of owners of the company.

Interest coverage ratio shows how many times the interest charges are covered by EBIT out of which they will be paid. The conclusion drawn by the study is the average interest coverage ratio of BOKL is 1.97 and HBL is 1.98, which shows that both banks are able to cover the interest but as the higher interest coverage ratio is better. HBL seems to have higher ratio than BOKL.

In regards of the comparative position of return on total assets of the two commercial banks BOKL seems to have the highest return of 1.65 in comparison of 1.39 of HBL.

The return on shareholders' equity of BOKL shows the average ratio of 23.34% and it has fluctuating trend. The data indicates that BOKL has instable return. Similarly HBL has decreasing trend and the area of 22.79%. By analyzing the average ROSHE, we can conclude that return earned by the shareholders equity of HBL is least i.e. 22.79 and the return of BOKL is highest i.e. 23.34%. So we can conclude that both companies should apply suitable action to increase ROSHE.

Earning per share of an organization shows the strength of the share in the market. The average earning per share of BOKL is Rs. 40.94. Similarly, the average earning per share of HBL is Rs. 55.92. Among the two, HBL has the highest earning per share.

Dividend per share shows the amount of earning distributed to ordinary shareholders. It shows the efficiency and effectiveness of the company. The investors invest in the company paying adequate amount of dividend. The average dividend per share of BOKL is Rs. 13.02. Similarly, HBL shows an average DPS of Rs. 16.32. Among the two, HBL has paid the highest dividend.

Net income approach is the dependent hypotheses of capital structure, which states with the increased use of leverage, overall cost of capital declines and the total value of the firm rise. According to this hypothesis the firm with the highest value and the least cost of capitalization rate is considered to have the best capital structure. The average value of firm of BOKL and HBL are 8995.41 and 17469.85 respectively and the average costs of capitalization rate are 8.49% and 7.99% respectively. From the calculation it can be concluded that HBL has the better capital structure in comparison with BOKL.

Net operating income is the independent hypothesis of the capital structure decision of the firm. According to this hypothesis, any change in the leverage will not lead to any change in the total value of the firm and market price of the share, as the overall cost of capital is independent of

the degree of leverage. From the position of average K_e we can conclude that HBL has lesser K_e i.e. 7.1% than BOKL i.e. 7.9%.

When the company employs debt or other fund carrying fixed charges in the capital structure, financial leverage exists. From the calculations, we can conclude that BOKL is using high long term debt and so is bearing the highest risk among the two. But it can also be concluded it is taking corrective actions to decrease its risk since the trend is decreasing. HBL has moderate financial risk.

Considering the correlation coefficient and probability error calculated the correlation coefficients are positive and PE is less than the correlation coefficient which concluded that the total debt and shareholder's equity deviate in the same direction and relationship between total debt and correlation efficient are significant. Likewise in the case of EBIT and interest the correlation coefficients are positive and significant in a relationship.

In the case of long term debt and earning per share, the correlation coefficient of BOKL and HBL are positive which concluded that the positive correlation exists between the two variables. Since PE in case of BOKL is less than correlation which means relationship between LTD and EPS is significant but PE in case of HBL is greater than correlation, the relationship between LTD and EPS is insignificant.

In the case of EBIT and DPS, BOKL shows negative correlation and PE is greater which shows insignificant relationship but in the case of HBL correlation is positive and PE is greater than correlation which shows insignificant relationship.

5.3. Recommendation

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

First of all, the companies lack the theoretical knowledge regarding the capital structure. They have not given significant attention to the

capital structure matter. Capital structure is a serious matter. It affects EPS, Value of the firm, cost of capital etc, so it is recommended that these companies should follow the theoretical aspects of the capital structure management or given bit more attention in this matter and try to manage their activated accordingly.

Observing the return on shareholders' equity, earning per share, dividend per share, return on assets, HBL seems to have better capital structure than the BOKL. The companies along with the return should also consider the risk associated. The companies' shareholders not only seek the high return from their investment but also consider the risk of the investment. So it is recommended to all these companies to plan their capital structure well by analyzing the possible financial alternatives considering high return and least risk.

The companies are also recommended to minimize the financial and other expenses so the interest coverage ratio could be increased. They are recommended to use less cost debt, improve strategy of promotion activities, analyze and evaluate before making investments etc to increase the return and decreases risk.

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