

# Capital Structure of Nepalese Commercial Banks

**A THESIS**

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## RECOMMENDATIONS

This is to certify that the Thesis

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has been prepared as approved by this campus in the prescribed format of faculty of Management. The thesis is forwarded for examination.

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And found the thesis to be original work of the student and writing according to the prescribe format. We recommended the thesis to be accepted as partial fulfillment of the required for degree of

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## **Declaration**

I hereby, declare that the work reported in this thesis entitled “Capital Structure of Nepalese Commercial Banks” submitted to Office of the Dean Faculty of Management, Tribhuvan University originally done in the form of partial fulfillment of the requirements for the Masters of Business Studies (M.B.S.), under the supervision of “Mr. Keshab Ghimire” Associate Professor of Patan Multiple Campus, Tribhuvan University.

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# Abbreviations

BOK	Bank Of Kathmandu
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
F/S	Fiscal Year
HBL	Himalayan Bank Limited
LTD	Long-Term Debt
NEPSE	Nepal Stock Exchange
NI	Net Income
NOI	Net Operating Income
NIB	Nepal Investment Bank Limited
ROE	Return On Equity
ROSHE	Return On Shareholder's Equity
ROA	Return ON Assets
RS	Rupees
TD	Total Debt
TA	Total Assets
F/S	Fiscal Year
WACC	Weighted average Cost of Capital

# CHAPTER 1

## INTRODUCTION

### 1.1 Background of the study

Every business firm of 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 operation smoothly.

The funds 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 creditor. The term capital structure refers to the proportion of debt and equity capital or the composition of long-term sources 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 funds whereas others make such greater use of borrowings.

Firstly, we must decide what we mean by a good capital structure. This would be capital structure, which results in a low overall cost of capital for

the company i.e. a low overall rate of return that need 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 tradeoff 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.

Few years ago due to Maoists conflict it was hard to research about the banks but now there is some peace in our country. So I am trying to study about Capital structure of commercial banks in the current situation of NEPAL.

## **1.2 Introduction to Sample Banks**

### **Bank of Kathmandu Ltd**

Incorporation 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%.

### **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 operation in 1993.

### **Nepal Investment Bank Ltd.**

Nepal Investment Bank Ltd., previously Nepal Indosuez Bank Ltd., was established in 1986 as a joint venture between Nepalese and French partners. The French partner (holding 50% of the capital) was credit Agricola Indosuez, a subsidiary of one of the largest banking group in world on April 2002, with the decision of French partner to divest, the 50% holding has been acquired by a group of companies comprising of bankers, professionals, industrialists and businessmen and the name has been changed to Nepal Investment Bank Ltd. of the total shares of the Bank, the group of companies, 15% by Rastriya Banijya Bank and 15% by Rastriya Beema Sansthan holds 50% and the general public holds the remaining 20%. The banks initial authorized capital stand at Rs.59 million with the issued capital of Rs.29.5293 million and paid up capital of Rs.29.5293 million.

### **1.3. Statement of the Problem**

Bank plays a significant role for 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 business 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. Whether or not the capital structure affects the growth of the bank?
2. To what extent the capital structure policy of capital structure is followed by the commercial banks?
3. What are the main problems faced by the commercial banks in developing and implementing the policy of capital structure?

#### **1.4 Objectives of the study**

The basic objective of this study is to analyze the capital structure and its effects on the risk and returns of the commercial banks in context of Nepal.

The specific objectives are given below:

1. To examine the existing position of capital structure of the commercial banks in Nepal.
2. To analyze the capital structure of the commercial banks in Nepal.
3. To assess the relationship of capital structure with earning per share, dividend per share and net worth.

### **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 proportion 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 Limitations of the Study**

This study is not far from several limitations, which are given below:

1. This study covers three banking institutions: The Bank of Kathmandu, The Himalayan Bank and Investment Bank.
2. This study mainly based on secondary data.
3. This study covers the period of 5 Fiscal Year (2008-2013) only.

### **1.7 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, data presentation and analysis and summary conclusions and recommendations of the study rational 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 consideration 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 recommendations of the 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 I have presented it 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.

The financial managers is concerned with determining the best financial mix or capital structure where the optimal financing mix would exist, in which market price share could be maximized.

Capital structure of the firm is the permanent financing represented by long-term debt, preferred stock and shareholder's equity. Thus, a firm's capital structure is only part of its financial structure.

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.

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.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 six different groups.

- ) Traditional Theory
- ) Modigliani Miller theory
- ) 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 Theory**

The next theory is the most important theory, although it is not a realistic theory. The Modigliani – Miller theorem states 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 (J.C. Van Horne, 1995).

1. Capital markets are perfect
  - ) Information is free of costs and widely available.
  - ) No transaction costs.
  - ) Investors behave rational.
2. Every firm has perpetual flows of money with equal time 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 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 adaption 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 target debt-to-value ratio and moving gradually towards to it, in much the same way that a firm adjusts dividends to move towards to 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 decisions don't always maximize the market value of a 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 a 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 per-formations 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 ratio's to available investment resources.
3. Internal resources of 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 ratio is dependent on the way a 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 finance 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 hypotheses in 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 investor 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 n the nature of its stakeholders (Cornell and Shapiro, 1987). 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 to provide service to customers or job-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:

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 selling 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 firms; that is, investors have homogeneous 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

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

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

Where,

$d_1$  = Next dividend

$p_0$  = current price per share

g = Expected growth rate  
 overall or weighted Average cost of capital

$$k = K_d \left( \frac{B}{V} \right) + K_S \left( \frac{S}{V} \right)$$

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

Total value of the firm is thus,

$$v = B + S$$

$$= \frac{I}{K_d} + \frac{EBIT - I}{K_S}$$

### 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 advantage, 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 to 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 common stock, together on the weighted basis will be less than yield (cost of equity) which existed on the common stock before debt financing (Barger, 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. (Solomon, Ezra, 1963:94)

### **First stage: Increasing Value**

The first stage starts with the introduction of debt in the firms' 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 (Kd) 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 the 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.

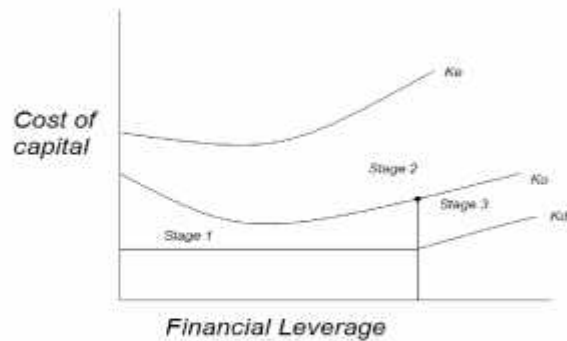


Figure:1 Effect of leverage on cost of Capital under Traditional Theory

In figure1, it is assumed that  $K_s$  rise 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 offset 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 states that firm can increase its value or loser 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 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 holder 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 holder's required rate of return is relatively lower than that of equity holders. So, the debt financing 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 uses 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 of debt 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 assumption.

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.

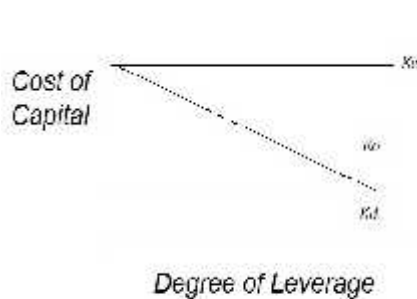


Figure:2 The Effect of Leverage on the Capital Structure

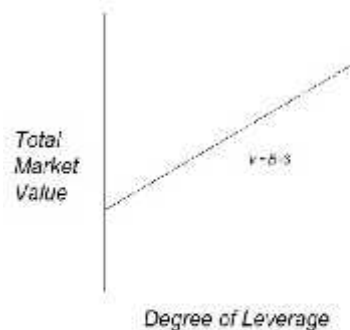


Figure:3 The effect of Leverage on the Total Market Value of the firm

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 increases with 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 ( $K_d$ ) and the equity capitalization rate ( $K_s$ ) 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 ( $K_o$ ).

### **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 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 different 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 earnings 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 increases with the debt level and the higher cost of equity offset the benefit of cheaper debt financing, resulting no effect at all one overall cost of capital ( $K_o$ ).

The NOI approach is based on following assumptions:

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,  $k_e$ .
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:

$$k_s = K + (k_e - k_d) B/S$$

The relationship between financial leverage and  $k$ ,  $k_s$  and  $k_d$  has been graphically depicted in following figures.

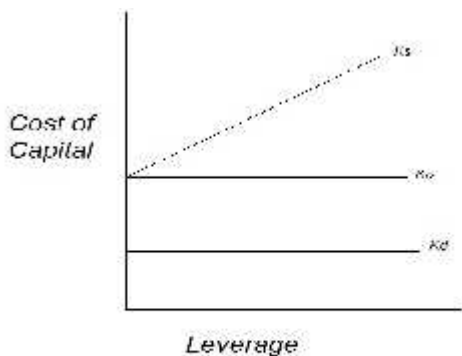


Figure:4 The Effect of Leverage on cost of capital

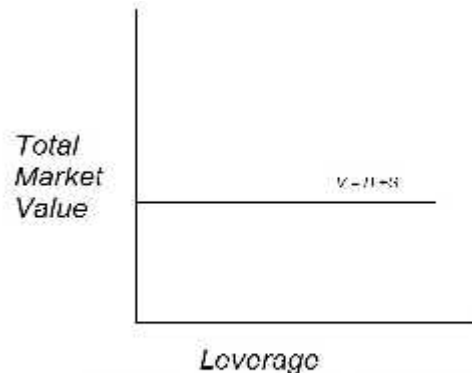


Figure:5 The effect of Leverage on Total Market Value of the Firm

In figure 4, 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 (Gilman Lawrence, 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 financed and the theory of Investments", American Economic Review, XLVIII June 1958) relating to the relation is skin to net operating income approach. MM approach, supporting the net operating income approach, argues that, in the absence of taxes, total market value and cost of capital of 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 content 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 position 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 a conservation of investment value (ibid : 273). However, the following assumptions 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 hypothesis.

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 classed. Firms would be considered to belong to homogeneous 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 earnings to the shareholders, i.e., divided payout ratio is 100 percent.
4. There are not taxes. This assumption is removed later.
5. The assumption of perfect information and rationality, all investors has the same exception of firm's net operating income with which to evaluate the value of any firm.

The MM cost of capital hypothesis can be best expressed in terms of their proposition I and II.

### **Proposition I**

Given the above assumptions, MM argues that, for the some 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 propos it.

In equation this can be expressed as follows:

Value of the Firm = Market value of debt (B) + Market value of equity (s)

$$= \frac{\text{Expected net operating income}}{\text{Expected overall capitalization rate}}$$

$$= \frac{EBIT}{k_s}$$

For an unlevered firm,  $V_u = \frac{EBIT}{k_s}$

Where  $k = k_s$  is 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 (EBIT) 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 hypothesized by MM is shown in figure below.

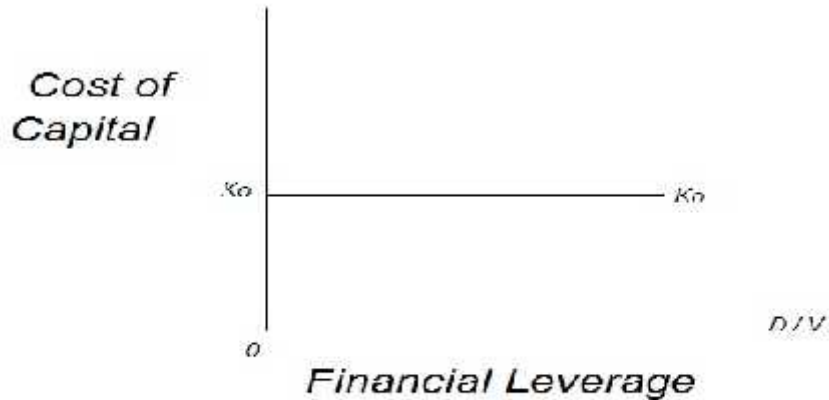


Figure:6 The cost of capital under the MM Hypothesis

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, arbitrage will take place, which will enable investors to engage in personal leverage to restore equilibrium in the market. (Pandey I.M.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 that the cost of equity rises proportionately with the increase in the financial leverage in order to compensate in the form of a 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.

$$k = \frac{K_s (S)}{S+B} + \frac{k_d (B)}{S+B}$$

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

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

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 the interest rate. As the proportion of debt increases, 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,  $k_s$  increase 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

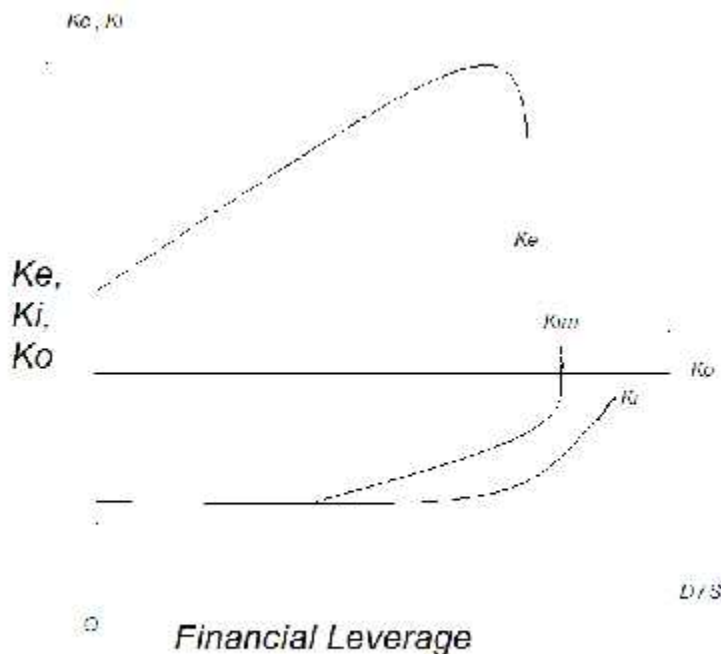


Figure:7 Behaviour of  $K_o$ ,  $K_i$  and  $K_e$  under M-M Hypothesis

It is clear from the figure that  $K_s$  will increase till the marginal rate of interest ( $K_m$ ) 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 three types of leverage: Financial leverage, operating leverage and combine 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 are described as financial leverage (waterman, Martin, 1963:7). Financial leverage refers to the response of shareholders' income to change in earnings 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 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 yield and financial structure for 43 large electric utilities, which is based on 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 for 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 Dan's Study** (*Viet Anh Dang, "Testing 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 next 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 found 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. There has been also some compelling evidence in favor of the relationships between gearing and the conventional determining factors (except profitability), as predicted by trade-off framework. Non-debt tax shields and growth opportunities are reported to be inversely related to debt 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 pecking order theory. However, given the simplicity of the empirical model, it is impossible to reject the pecking order theory prediction completely.

## **2.5.2. Review of Articles**

### **Paul Marsh, 1982**

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

- ) Whether companies are having the targeted debt ratio.
- ) Whether they have similar targets from 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 future 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 of problems of access to capital market.
- ) Equity issues seem to be favorable as it provides strong share price and overall market performance.

### **Sudhir Poudyal, 2002**

“A study on Capital Structure: Its impact on value of a Firm”, an article by Sudhir Paudyal concentrated to examine the interrelationship between the objective 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 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.

### **2.5.3. Review of Thesis**

#### **Pandey, 2003**

The basic objective of the study 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. 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.

### **Anjana Shah, 2004**

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 Earnings Before Interest and Tax. Both financial tools such as ratio analysis as well as statistical tools like correlation co-efficient and regression analysis has 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.

# 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 completing 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 includes an outline of what the investigator will do from writing the hypotheses 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. When we draw diagrams that outline the variables and their relation and juxtaposition, we build structural schemes 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 problems encountered in the research will be tackled.

The method and definite technique, which guides to study and five 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 thesis styles and formats have been followed. In this study, descriptive cum analytical research design has been used.

## **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 bank's annual reports. Other supplementary data are collected from a number of institutions and regulating authorities like Nepal Rastra Bank, Nepal Stock Exchange Ltd., security exchange board etc and from different related websites. This study is based on the historical data of 5 – year period.

### **3.2.2 The population and Sample**

There are all together 32 commercial banks functioning in Nepal, which is the size of the population. Out of them, 3 leading private commercial banks, Bank of Kathmandu Ltd., Himalayan Bank Ltd., and Nepal Investment Bank Ltd., are considered as samples to carry out the research work.

## **3.3 Tools for analysis**

For the purpose of data analysis, various financial and statistical tools will be used to achieve the objective of the study. The evaluation of data will be 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 establishes the numerical relationship between two variables of the financial statement. Besides, the 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 tool 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 and 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 measures 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.

The Long Term Debt to Total Debt is calculated as:

$$\text{Long Term Debt to total Debt Ratio} = \frac{\text{Long Term Debt}}{\text{Total Debt}}$$

) **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 shareholder's 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 measures 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 includes long-term debt and current liabilities. The total assets consist of permanent assets and other assets.

It is calculated as –

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

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 indicates the relative proportions of debt and equity. The relationship between outsiders claim and owner's capital can be shown by debt-equity ratio.

It is calculated as -

$$\text{Debt to Equity Ratio} = \frac{\text{Long Term Debt}}{\text{Share holder's Equity}}$$

### ) **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 a 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 to 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 indicated efficiency in utilizing its overall resources and vice versa-from the point of view of judging operational efficiency, rate of return on total assets in more useful measure.

## ) **Return on Shareholder's Equity**

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

This ratio is calculated as –

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

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

The profitability of bank from the point of view of the ordinary shareholders is earning per share.

### ) **Earnings Per Share (EPS) Analysis**

The ratio explains net income for each unit of share. Earnings per share of an organization give 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 below:

$$\text{EPS} = \frac{\text{Net Income}}{\text{No. of shares outstanding}}$$

### ) **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 investor may be interested in the dividend per share, rather than the earning per share. Therefore, an institution offering a higher dividend per share is regarded as efficient in fulfilling shareholders expectations, which will also enable to increase the value of and institution.

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

$$\text{DPS} = \frac{\text{Total Dividend}}{\text{No. of ordinary shares}}$$

#### **3.3.1.2 Leverage 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 (DFL) is defined as



the percentage change in EPS due to a given percentage change in EBIT or this is a relationship between EBIT and EBT.

It is expressed as –

$$DEL = \frac{\% \text{ change in EPS}}{\% \text{ Change in EBIT}}$$

Or,

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

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

### 3.3.1.3 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 is bit complex thus NI and NOI approaches are used in this study.

Market value of firm (V) = Market value of debt (B)  
+ Market value of equity (S)

Cost of overall capitalization rate (Ko)  
=  $\frac{\text{Net operating Income (EBIT)}}{\text{Total Market Value of the firm (V)}}$

Cost of equity (Ke) Earning Available to common stock  
=  $\frac{\text{Holders (NI)}}{\text{Market Value of Stock (S)}}$

### 3.3.2 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

### **3.3.2.1 Mean**

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

### **3.3.2.2. 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.

### **3.3.2.3. Correlation coefficient (r)**

Correlation co-efficient measures the relationship between two and more than two variables when they are so related that the change in the value of one 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'.

### **3.3.2.4. Probable Error (P.E.)**

P.E. interprets the value of correlation co-efficient. It helps to determine applicability for the measurements of reliability of the computed value of the correlation coefficient 'r'.

It can be calculated as:

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

Where, r = correlation co-efficient

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.

### 3.3.2.5. Regression

In multiple regression, the analysis is concerning with the two or more than two independent and dependent variables. The general equation of multiple regression for two independent variables is given as  $Y = a + b_1x_1 + b_2x_2$

Where Y is the dependent variable and  $x_1, x_2$ , are the independent variables.

## CHAPTER 4

### DATA PRESENTATION AND ANALYSIS

This is the most important chapter of the study. In this chapter, the data collected will be analyzed and presented mathematically. All the above-mentioned financial and statistical tools will be used to present the data.

The main objective of this study is to evaluate the capital structure of BOKL, HBL and NIBL. To analyze the financial performance in respect to capital structure, various presentation and analysis have been presented in this chapter according to analytical research design mentioned in the third chapter using various financial and statistical tools.

It is already stated that capital structure refers to the combination of preference share, equity share capital including reserve and surplus as well as long-term debt. Optimal capital structure refers to that combination of funds, which maximizes the EPS, value of the firm and overall cost of capital. Thus this chapter emphasizes the position of capital structure of BOKL, HBL and NIBL. The analyses in this chapter are divided into following sections, which are directly and indirectly related to the capital structure.

- ) Ratio analysis
- ) Analysis of capital structure
- ) Leverage Analysis
- ) Correlation Analysis

## 4.1 Ratio Analysis

### 4.1.1 Long Term Debt to Total Debt Ratio

The relationship between long term debt and total debt has decisive impact on the financial structure of the companies. This relationship indicated what percentage of total debt is covered by long-term debt of the firm. Normally firms use 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 the total debt can derive the relationship between the long-term debt and total debt of the firm. The total debt included all types of borrowed fund, current liabilities and provisions. If the firm uses large amount of short term loans and occur current liabilities and provision in the large amount, the percentage of long term debt on total 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.

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

**Table-1**  
**Long-Term Debt and Total Debt Position**

<b>Fiscal Years</b>	<b>Long-Term Debt and Total Debt (%)</b>		
	<b>BOKL</b>	<b>HBL</b>	<b>NIBL</b>
2008/09	0.05	0.17	0.71
2009/10	0.05	0.17	0.63
2010/11	0.36	1.92	1.90
2011/12	-	1.76	0.19
2012/13	-	1.74	0.16
<b>Average</b>	<b>0.09</b>	<b>1.15</b>	<b>0.52</b>

Source: Annual Reports of BOKL, HBL & NIBL

The Table 1 shows that the ratio of long-term debt to total debt of BOKL constituted 0.05% in fiscal year 2008/09. This means the contribution of long-term debt in total debt is 0.05% and the remaining portion is contributed by the current liabilities. This ratio of BOKL is constant in fiscal year 2009/10 and then increased to 0.36% in fiscal year 2010/011. But, then after this the company stopped using long-term debt. The company has 0.09% of average long-term debt to total debt ratio. In the case of HBL, it shows in the fiscal year 2008/09 the ratio is 0.17% which indicated there is 0.17% contribution of long-term debt in total debt and remaining portion is contributed by current liabilities. In the year 2009/010 also, the ratio is 0.17%, which is increased to 1.92% in 2010/011, decreased to 1.76% in the year 2011/012 and again decreased to 1.74% in the year 2012/013. The average ratio is 1.15%.

Similarly, in the case of NIBL, the ratio in fiscal year 2008/9 is 0.71%, which indicates there is 0.71% contribution of long-term debt in total debt and remaining portion is contributed by current liabilities. The ratio decreases to 0.63% in the following year 2009/10 but increases to 1.90%

in the year 2010/11. After that the decreasing trend starts where the ratio decreases to 0.19% in the year 2011/12 and again to 0.16% in the years 2012/13. The average ratio is found to be 0.52%.

#### **4.1.2 Long-Term Debt to capital Employed Ratio**

The optional 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 in the capital employed by the firm. Long-term debt included 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 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-2**  
**Comparative Long-Term Debt to Capital Employed Ratio**

<b>Fiscal Years</b>	<b>Long-Term Debt to Capital Employed (Times)</b>		
	<b>BOKL</b>	<b>HBL</b>	<b>NIBL</b>
2008/09	0.008	0.048	0.055
2009/10	0.009	0.043	0.059
2010/11	0.039	0.308	0.071
2011/12	-	0.269	0.025
2012/13	-	0.239	0.026
<b>Average</b>	<b>0.01</b>	<b>0.18</b>	<b>0.05</b>

Source: Annual Reports of BOKL, HBL & NIBL

The table 2 shows that the long-term debt to capital employed ratios of BOK in the FY 2008/09, 2009/10, and 2010/11 are 8%, 9% and 3.9% respectively and from in the year 2011/12 and 2012/13 the company has not used long-term debt. The average ratio is 1%.

Similarly HBL has fluctuating trend of long-term debt to capital employed ratio. In the FY 2008/09 the ratio is 4.8% that means the contribution of long-term debt in total capital employed is 4.8% that means the contribution of long-term debt in total capital employed is 4.8% and owner of the companies contributed remaining 95.2%. In the following year 2007/09, 2011/12 and 20120/11 the ratios are 30.8%, 26.9% and 23.5% respectively. The average of five years data shows a ratio of 18%.

At the same time in case of NIBL the Long-term debt to capital employed ratios in the FY 2008/09, 2009/10, 2010/11, 2011/12 and 2012/13 are



5.5%, 5.9%, 7.1%, 2.5% and 2.6% respectively. And the average ratio is 5%.

#### 4.1.3 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 provide by creditors.

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

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

**Table-3**  
**Comparative Debt Asset Ratios**

Fiscal Years	Debt to Asset (%)		
	BOKL	HBL	NIBL
2008/09	0.00	0.00	0.01
2009/10	0.00	0.00	0.01
2010/11	0.00	0.02	0.01
2011/12	0.00	0.02	0.00
2012/13	0.00	0.02	0.00
<b>Average</b>	0.00	0.01	0.00

Source: Annual Reports of BOKL, HBL & NIBL

The table 3 shows that all the sample banks have negligible long-term debt in comparison to total assets. Hence, the debt ratio or debt to total assets ratio of BOK, HBL and NIB is negligible. Therefore the debt ratio is insignificant.

#### **4.1.4 Debt Equity Ratio**

Debt equity ratio is used to show the relationship between borrowed funds and owner's capital. It reflects the relative claims of creditors and shareholders against the assets of the firm. The ratio reflects the relative contribution of owners and creditors capital of business in its financing. In other words, this ratio exhibits the relative proportions of capital contributed by owners and creditors. Debt equity ratio can be calculated in the basis of shareholder's equity and long-term debt. Shareholder's 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 shareholder's 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.

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

**Table-4**  
**Comparative Debt Equity Ratios**

<b>Fiscal Years</b>	<b>Debt to equity (%)</b>		
	<b>BOKL</b>	<b>HBL</b>	<b>NIBL</b>
2008/09	0.012	0.111	0.18
2009/10	0.012	0.108	0.17
2010/11	0.046	0.977	0.24
2011/12	-	0.618	0.06
2012/13	-	0.759	0.07
<b>Average</b>	<b>0.014</b>	<b>0.515</b>	<b>0.14</b>

Source: Annual Reports of BOKL, HBL & NIBL

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 ratios of BOKL are 0.012, 0.012 and 0.046 in fiscal years 2008/09, 2009/10 and 2010/11 respectively.

Then afterwards the D/E ratios are zero in the years, 2011/12 and 2012/13, the average D/E ratio of BOKL is 0.014.

#### **4.1.5 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 measures the debt serving capacity of a firm and it is concerned with long-term loans. I show how many times the interest charges are covered by EBIT out of which they will be paid. This ratio used 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 three companies are presented in the following table.

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

**Table-5**  
**Comparative Interest Coverage Ratio**

<b>Fiscal Years</b>	<b>Interest Coverage Ratio (Times)</b>		
	<b>BOKL</b>	<b>HBL</b>	<b>NIBL</b>
2008/09	1.43	1.53	1.91
2009/10	1.30	1.59	1.58
2010/11	1.09	1.60	1.60
2011/12	1.44	1.65	1.90
2012/13	1.64	1.86	1.71
<b>Average</b>	<b>1.38</b>	<b>1.65</b>	<b>1.74</b>

Source: Annual Reports of BOKL, HBL & NIBL

The Table 5 shows, the average ratio of BOKL is 1.38, which implies the number of times the interest covered by its EBIT. The interest coverage

ratio of BOKL shows a fluctuating trend. The interest coverage of BOKL in FY 2008/09 is 1.43 times which decreases to 1.30 times in 2009/10 and 1.09 in 2010/11. Then the increasing trend starts from the year 2011/12 to the ratio of 1.44 times and 1.64 times in 2012/13.

In case of HBL, the interest coverage ratio is 1.53, 1.59, 1.60, 1.65 and 1.86 in the FY 2008/09, 2009/10, 2010/11, 2011/12 and 2012/13 respectively.

Similarly, in the case of NIBL, the ratios are 1.91, 1.58, 1.60, 1.90 and 1.71 in the FY 2008/09, 2009/10, 2010/11, 2011/12 and 2012/13 respectively and average ratio is 1.74.

#### **4.1.6 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 bank's assets. The ratio explains net income for each unit of assets.

Higher ratio indicated 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 measures. The return on total assets ratio is calculated using the formula below:

$$\text{Return to Total assets} = \frac{\text{Net Profit After Tax}}{\text{Total Assets}}$$

**Table-6**  
**Position of Comparative Return on Total Assets**

<b>Fiscal Years</b>	<b>Interest Coverage Ratio (Times)</b>		
	<b>BOKL</b>	<b>HBL</b>	<b>NIBL</b>
2008/09	1.51	1.26	1.91
2009/10	1.02	1.44	1.10
2010/11	0.15	1.14	1.15
2011/12	0.01	0.91	1.30
2012/13	1.34	1.06	1.15
<b>Average</b>	<b>1.02</b>	<b>1.16</b>	<b>1.32</b>

Source: Annual Reports of BOKL, HBL & NIBL

The Table 6 shows the comparative position of return on total assets of the three commercial banks. The table shows the ROA of BOKL in the years 2008/09, 2009/10, 2010/11, 2011/12 and 2012/13 are 1.51, 1.02, 0.15, 1.10 and 1.34 respectively. The average ratio is 1.02.

Similarly, the ROA of HBL in the years 2008/09, 2009/10, 2010/11, 2011/12 and 2012/13 are 1.26, 1.44, 1.14, 0.91 and 1.06 respectively and the average return in 1.16.

Again, from the above table, the ROA of NIBL are 1.91, 1.10, 1.15,, 1.30 and 1.15 in the years 2008/09, 2009/10, 2010/11, 2011/12 and 2012/13 respectively. The average return is 1.32.

#### **4.1.7 Return on Shareholder's Equity**

Shareholders' fund represents that part of long-term source of funds, which is collected by issuing equity shares and preference 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 (ROSHE) is used or this ratio is calculated to find out the profitability on the owner's capital or investment.

If the company's earning is good, shareholder's earning is greater than outside investors because they are ultimate owners and they are bearing high risk as well. But outside investors get 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 shareholder's 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 (SHE), which is presented in the following table.

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

**Table-7**  
**Position of Comparative ROSHE**

<b>Fiscal Years</b>	<b>Return on Shareholder's Equity</b>		
	<b>BOKL</b>	<b>HBL</b>	<b>NIBL</b>
2008/09	27.68	37.90	17.71
2009/10	19.98	38.95	12.02
2010/11	1.78	27.39	10.91
2011/12	14.18	19.95	18.30
2012/13	19.59	19.87	20.94
<b>Average</b>	<b>16.64</b>	<b>28.81</b>	<b>15.98</b>

Source: Annual Reports of BOKL, HBL & NIBL

The table 7 exhibits return on shareholder's Equity of Sampled companies. In case of BOKL, in the fiscal year 2008/09, the ratio is 27.68% that implies that one rupee investment by shareholder's equity earned 27.68 paisa in one year. In the fiscal year 2009/10 it is decreased by 19.98%. It has further decreased to 1.78% in the fiscal year 2010/11. Similarly in the fiscal year 2011/12 the ratio is 14.18 and in the year 2012/13 the ratio is 19.59%. The average ratio is 16.64%. Similarly in the case of HBL, in the fiscal year 2008/09 the ROSHE is 37.90%. In the following year it is 38.95% increased by 1.05%. After that ROSHE of HBL are decreasing gradually. In the fiscal year 2010/11, 2011/12 and 2012/13, the ratios are 27.39%, 19.95% and 19.87% respectively. Average ratio is 28.81%.



Similarly in the case of NIBL, in the fiscal year 2008/09, the ratio is 17.71%, which shows that the company's owner can earn 17.71 paisa investing rupee one. But it has decreased gradually and ratios are 12.02%, 10.91%, 18.30% and 20.94% in the fiscal years 2009/10, 2010/11, 2011/12 and 2012/13 respectively. The average ratio is 15.98%.

#### 4.1.8 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. Earnings per share of an organization give the strength of the share in the market. It shows how much theoretically belongs to the ordinary shareholders. The EPS is calculated as below:

$$\text{Earnings Per Share} = \frac{\text{Net Income}}{\text{No. of Shares outstanding}}$$

**Table-8**  
**Position of Comparative EPS**

Fiscal Years	Interest Coverage Ratio (Times)		
	BOKL	HBL	NIBL
2008/09	40.73	93.08	53.68
2009/10	27.97	93.56	33.17
2010/11	2.00	60.26	33.59
2011/12	17.72	49.45	39.56
2012/13	27.50	49.05	51.70
<b>Average</b>	<b>23.18</b>	<b>67.08</b>	<b>42.34</b>

Source: Annual Reports of BOKL, HBL & NIBL

The earnings per share of BOKL are 40.73, 27.97, 2.00, 17.72 and 27.50 in the years 2008/09, 2009/10, 2010/11, 2011/12 and 2012/13 respectively. The average EPS is 23.18. The overall trend is very fluctuating. The highest EPS is 40.73 in the years 2008/09.

Similarly, the earnings per share of HBL are in the year 2008/09, 2009/10, 2010/11, 2011/12 and 2012/13 are 83.08, 93.56, 60.26, 49.45 and 49.05 respectively. The average EPS is 67.08. Here the overall trend is decreasing. The EPS decreases from 83.08 in the year 2008/09 to 49.45 in the year 2011/12. And the earnings per share of NIBL are in the years 2008/09, 2009/10, 2010/11, 2011/12 and 2012/13 are 53.68, 33.17, 33.59, 39.56 and 51.70 respectively. And the average EPS is 42.34. Here, the overall trend is decreasing.

#### **4.1.9 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-9**  
**Position of Comparative DPS (in Rs.)**

<b>Fiscal Years</b>	<b>Interest Coverage Ratio (Times)</b>		
	<b>BOKL</b>	<b>HBL</b>	<b>NIBL</b>
2008/09	32.74	50.00	25.00
2009/10	0.00	27.50	0.00
2010/11	10.00	25.00	0.00
2011/12	5.00	1.31	20.00
2012/13	10.00	0.00	15.00
<b>Average</b>	<b>11.55</b>	<b>20.76</b>	<b>12.00</b>

Source: Annual Reports of BOKL, HBL & NIBL

The dividends per share of BOKL are Rs.32.74, Rs.0.00, Rs.10.00, Rs.5.00 and Rs.10.00 in the years 2008/09, 2009/10, 2010/11, 2011/12 and 2012/13 respectively. The average DPS is Rs.11.55. The highest DPS paid is Rs.32.74 in the year 2008/09 whereas it has paid no dividend at all in the year 2009/10.

Similarly, HBL shows a DPS of Rs.50.00, Rs.27.50, Rs.25.00, Rs.1.31 and Rs.0.00 in the years 2008/09, 2009/10, 2010/11, 2011/12 and 2012/13 respectively. The average DPS is Rs.20.76. It paid a highest dividend of Rs.50.00 in the year 2008/09 and the lowest dividend Rs.1.31 in the year 2011/12. In the year 2012/13, the company paid no dividend at all.

Again, NIBL shows a DPS of Rs.25.00, Rs.0.00, Rs.0.00, Rs.20.00 and Rs.15.00 in the years 2008/09, 2009/10, 2010/11, 2011/12 and 2012/13 respectively. The average DPS is Rs.12.00. It paid a highest dividend of

Rs.25.00 in the year 2008/09 and the lowest dividend Rs.15.00 in the year 2012/13. In the years 2009/10 and 2010/11, it paid no dividend.

The average dividend per share of BOK is Rs.11.55. Similarly, HBL shows an average DPS of Rs.20.76. Again, NIB shows an average DPS of Rs.12.00. Among the three, HBL has paid the highest dividend.

## **4.2 Capital Structure**

### **4.2.1 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 total valuation of the firm through the reduction in the cost of capital leading to an increase in the cost of capital thus leading to 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.

**Table-10**  
**Comparative position of overall Capitalization Rate**

Fiscal Years	BOKL		HBL		NIBL	
	Cost of Capital (KO)	Value of Firm (in Million Rs)	Cost of Capital (KO)	Value of Firm (in Million Rs)	Cost of Capital (KO)	Value of Firm (in Million Rs)
2008/09	19.67%	1734.77	22.09%	4106.65	11.54%	1920.27
2009/10	20.31%	1988.86	25.76%	4532.52	12.95%	1984.02
2010/11	26.02%	1198.78	21.66%	4281.07	15.66%	1332.07
2011/12	43.45%	917.89	22.98%	3978.60	15.20%	2363.81
2012/13	34.44%	1367.56	18.57%	4911.48	19.95%	2795.23
<b>Average</b>	<b>28.78%</b>	<b>1436.34</b>	<b>22.21%</b>	<b>4114.19</b>	<b>15.06%</b>	<b>2053.23</b>

Source: Annual Reports of BOKL, HBL & NIBL

Table 10 shows that the casts are 19.67%, 20.31%, 26.02%, 43.45% and 34.44% in the fiscal years 2008/09, 2009/10, 2010/11, 2011/12 and 2012/13, when the values of the firm are Rs.1734.77, Rs.1988.86, Rs.1198.78, Rs.917.89 and Rs.1367.56 million respectively. The average cost in 28.78% at an average value of Rs.1436.34 million.

Similarly, in the case of HBL, the costs are 22.09%, 25.76%, 21.66%, 22.98% and 18.57% in the fiscal years 2008/09, 2009/10, 2010/11, 2011/12 and 2012/13 respectively. And the values of the firm are Rs.4106.65, Rs.4552.52, Rs.4281.07, Rs.3978.60 and Rs.4911.48 million respectively. The average cost is 22.21% at an average value of Rs.4114.19m.

In the case of NIB, the costs are 11.54%, 12.95%, 15.66%, 15.20% and 19.95% in the fiscal years 2008/09, 2009/10, 2010/11, 2011/12 and 2012/13 respectively. And the values of the firm are Rs.1920.27,

Rs.1984.02, Rs.1332.07, Rs.2363.81 and Rs.2795.23 million respectively. The average cost is 15.06% at an average value of Rs.2053.23 million.

#### 4.2.2 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 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 shareholder. To minimize the financial risk, the shareholders want a higher return on their investment. Increases in  $k_o$  are exactly offset by using cheaper debt fund keeping  $k_o$  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.

**Table-11**

#### **Comparative Position of Effect of Debt on Equity Capitalization Rate**

Fiscal Years	BOKL		HBL		NIBL	
	Cost of Equity (Ke)	Long Term Debt (in Million Rs)	Cost of Equity (Ke)	Long Term Debt (in Million Rs)	Cost of Equity (Ke)	Long Term Debt (in Million Rs)
2008/09	6%	2.04	7.6%	6.65	5.5%	24.02
2009/10	4.7%	2.83	9.6%	32.52	4.7%	29.25
2010/11	2.2%	21.29	8.2%	381.07	5.9%	40.22
2011/12	13.3%	0.00	9.0%	392.16	7.2%	16.25
2012/13	13.5%	0.00	8.6%	406.98	8.3%	19.50
<b>Average</b>	<b>7.9%</b>	<b>5.23</b>	<b>8.6%</b>	<b>247.88</b>	<b>6.3%</b>	<b>25.85</b>

Source: Annual Reports of BOKL, HBL & NIBL

The equity capitalization rates of BOK in the fiscal years 2008/09, 2009/10, 2010/11, 2011/12 and 2012/13 are 6%, 4.7%, 2.2%, 13.3% and 13.5% respectively. And their respective long term debts are Rs.2.04, Rs.2.83, Rs.21.29, Rs.0.00 and Rs.0.00 million respectively. The average cost is 7.9% at an average long term debt of Rs.5.23 million.

The equity capitalization rates of HBL are 7.6%, 9.6%, 8.2%, 9.0% and 8.6% in the fiscal years 2008/09, 2009/10, 2010/11, 2011/12 and 2012/13 respectively. And the long-term debts are Rs.6.65, Rs.32.52, Rs.381.07, Rs.392.16 and Rs.406.98 million respectively. The average cost is 8.6% at an average long-term debt of Rs.247.88 million.

Similarly, the equity capitalization rates of NIB are 5.5%, 4.7%, 5.9% 7.2% and 8.3% in the fiscal years 2008/09, 2009/10, 2010/11, 2011/12 and 2012/13 respectively. And the long-term debts are Rs.24.02, Rs.29.25, Rs.40.22, Rs.16.25 and Rs.19.50 million respectively. The average cost is 6.3% at an average long-term debt of Rs.25.85 million.

### **4.3. 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 change 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 amount of leverage in the firm's capital structure the mix of long-term debt and equity maintained by the firm, it significantly affects 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 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 may be used to boost owner's returns, but it is used at the risk of increasing losses, if the firm's economic 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 and operating income and financial leverage exist when the capital structure of the firm comprises 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.

#### **4.3.1 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 owner's return i.e. net profit as well. Financial leverage explains the relationship between earnings 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 shareholder's return. The degree of financial leverage of sampled companies is presented in the following table.

$$DFL = \frac{\%change\ in\ EPS}{\%change\ in\ EBIT}$$

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

**Table-12**  
**Comparison of Degree of Financial Leverage**

Fiscal Years	Degree of Financial Leverage		
	BOKL	HBL	NIBL
2008/09	32.74	50.00	25.00
2009/10	0.00	27.50	0.00
2010/11	10.00	25.00	0.00
2011/12	5.00	1.31	20.00
2012/13	10.00	0.00	15.00
<b>Average</b>	<b>11.55</b>	<b>20.76</b>	<b>12.00</b>

Source: Annual Reports of BOKL, HBL & NIBL

Above calculated DFL of BOKL indicated fluctuation trend. In the fiscal year 2008/09 the DFL is 3.30 times. In the second year i.e. 2009/10 the DFL is 4.33 times. In the fiscal years 2010/11, 2011/12, 2012/13 the DFL is 11.61, 3.27 and 2.55 times respectively.

The trend of HBL is decreasing trend. The DFL of HBL in the fiscal year 2008/09, 2009/10, 2010/11, 2011/12 and 2012/13 is 2.89, 2.68, 2.66, 2.54 and 2.17 respectively. The average DFL of HBL is 2.59 times.

Similarly, the trend of NIBL is in fluctuating trend. The DFL of NIBL I the fiscal year 2008/09, 2009/10, 2010/11, 2011/12 and 2012/13 is 2.09, 2.74, 2.67, 2.11 and 2.41 respectively. The average DFL of NIBL is 2.40 times.

#### **4.4 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 to or more variables and correlation analysis in voles 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 we focus on simple correlation based on 'person's coefficient of correlation'. In the following section correlation between different variables are calculated and presented of the sampled companies.

- ) Total debt and shareholders' equity.
- ) Long term debt and earnings per share.

- ) EBIT and Interest.
- ) EBIT and DPS.

#### 4.4.1 Total Debt and shareholders' equity

The relationship between total debt (TD) and shareholder's equity (SHE) have been shown in the following table below. The total debt includes all typed of long-term borrowed funds, current liabilities and provisions. Whereas the shareholders' equity includes that 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 coefficient. It helps to determine applicability for the measurement of reliability of the computed value of correlation coefficient (r).

**Table-13**

**Correlation coefficient between TD and SHE with Probable Error**

<b>BOKL</b>		<b>HBL</b>		<b>NIBL</b>	
Correlation Coefficient (r)	Probable Error $\sigma$ (P.E.)	Correlation Coefficient (r)	Probable Error $\sigma$ (P.E.)	Correlation Coefficient (r)	Probable Error $\sigma$ (P.E.)
0.86	0.486	0.97	0.108	0.97	0.108

Source: Annual Reports of BOKL, HBL & NIBL

Karl Pearson's correlation coefficient between total debt and shareholders' equity of BOKL is .086. There is positive correlation between TD and SHE. The probable error  $\sigma$  (P.E.) of BOKL is 0.486 P.E. is less the correlation coefficient (r).

Similarly, the correlation coefficient of HBL is .097, which is closer to 1 and positive. The probable error is 0.108, which is less than r. In the case of NIBL, the correlation coefficient is 0.97, which is closer to 1 and positive. So it is also good correlated. The P.E. of respected correlation is 0.108, i.e. value of r is greater than P.E.

#### 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. Whereas earning per share (EPS) is earning of a share of firm from 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 coefficient and their respective probable error have been shown in the following table referred from annual reports of the related banks.

**Table-14**

**Correlation coefficient between long-term debt (Ltd) and Earnings per share (EPS) and their respective probable error**

<b>BOKL</b>		<b>HBL</b>		<b>NIBL</b>	
Correlation Coefficient (r)	Probable Error (P.E.)	Correlation Coefficient (r)	Probable Error (P.E.)	Correlation Coefficient (r)	Probable Error (P.E.)
-0.77	0.72	-0.96	0.144	-0.57	0.12

Source: Annual Reports of BOKL, HBL & NIBL

The table 14 shows that correlation coefficient between long-term debt (Ltd) and Earning Per share (EPS) of BOKL is - 0.77, which implies that

there is negative correlation between LTD and EPS. The probable error (PE) of BOKL is 0.72 PE is greater than correlation coefficient (r).

In the case of HBL, the correlation coefficient is -0.96, which implies that there is negative correlation between LTD and EPS. The probable error (PE) of HBL is 0.144 PE is greater than correlation coefficient (r).

Similarly, in the case of NIBL, the correlation coefficient is -0.57, which implies that there is negative correlation between LTD and EPS. The probable error (PE) of NIBL is 1.2, i.e. 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.

**Table-15**  
**Correlation Coefficient between EBIT and Interest, and Their**  
**respective Probable Error**

<b>BOKL</b>		<b>HBL</b>		<b>NIBL</b>	
Correlation Coefficient (r)	Probable Error (P.E.)	Correlation Coefficient (r)	Probable Error (P.E.)	Correlation Coefficient (r)	Probable Error (P.E.)
0.39	1.5	0.90	0.342	0.99	0.00

Source: Annual Reports of BOKL, HBL & NIBL

The table 15 shows that correlation coefficient of BOKL is found to be 0.39, i.e. there is positive correlation between interest and EBIT PE of respected correlation is 1.5, which is greater than correlation coefficient.

Similarly, in case of HBL, the correlation coefficient between interest and operating profit is 0.90. It is positive and closer to 1. The PE of respected correlation is 0.342, which is less than correlation coefficient.

In the case of NIBL, the correlation coefficient between interest and operating profit is 0.99. It is positive and almost equal to 1. The PE of respected correlation is negligible.

#### 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.

**Table-16**  
**Correlation Coefficient between EBIT and DPS and Their Respective Probable Error**

<b>BOKL</b>		<b>HBL</b>		<b>NIBL</b>	
Correlation Coefficient (r)	Probable Error $\sigma$ (P.E.)	Correlation Coefficient (r)	Probable Error $\sigma$ (P.E.)	Correlation Coefficient (r)	Probable Error $\sigma$ (P.E.)
-0.41	1.51	0.17	1.76	0.28	1.67

Source: Annual Reports of BOKL, HBL & NIBL

The table 16 shows that the correlation coefficient of BOKL is found to be -0.41, i.e. there is negative correlation between EBIT and DPS.  $\sigma$  (P.E.) of respected correlation is 1.51, which is greater than correlation coefficient.

Similarly, in case of HBL, the correlation coefficient between operating profit and dividend is 0.17. It is positive. The  $\sigma$ (P.E.) of respected correlation is 1.76, which is greater than the correlation coefficient. In the case of NIB, the correlation coefficient between operating profit and dividend is 0.28. It is positive but the  $\sigma$ (P.E.) of respected correlation is higher than 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. BOKL has 0.09% of average long-term debt to total debt ratio. Similarly, HBL and NIB have average ratio of 1.15% and 0.52% respectively. In all the three cases, the total debt is contributed by current liabilities to a large extent. The analysis of all three companies reveals the fluctuating trend of long-term debt to total debt ratio. Among the three, BOK has

used minimum long-term debt in comparison to HBL and NIBL. In the fiscal year 2008/09 and 2007.08, BOK has stopped suing the long-term debt of financing.

) The analysis shows that among the three banks BOKL, HBL and NIBL, BOKL has least and HBL has the highest long-term debt to capital employed ratio of 0.01 and 0.18 respectively. This indicates that

HBL is using more long-term Debt financing as its capital. Similarly, NIBL has the average of 0.05, which is also greater than BOKL. It can be said that long-term debt to capital employed ratio of all three companies are in appropriate.

- ) The long-term debt for financing used by all sample companies is very minimum or negligible. Hence, the debt to total assets ratio of BOKL, HBL and NIBL is negligible.
- ) The Debt-Equity ratio shows that claim of creditors on the total asset of the company. The trend analysis shows fluctuating trend in all sample companies. The average Debt Equity ratio of BOKL is 0.014, which shows that the creditors have 1.4% claim on the assets of BOKL. It also indicates that the company has used less amount of debt as financing and has lesser amount to be paid as interest on debt-HBL has the highest debt-equity ratio among the three with the average ratio of 0.515. It implies that the claim of creditors is 51.5%, which is higher than that of owners of the company. Similarly, the average ratio of NIBL is 0.14, which shows 14% claim of creditors. The ratio shows that HBL has used almost equal amount of debt and equity for financing where as in case of BOKL and NIBL, the contribution of debt is low in comparison to the equity.
- ) The analysis shows that all the sample companies BOKL, HBL and NIBL are able to pay the interest amount. Among the three, NIBL has the highest interest coverage ratio of 1.74 and BOKL has the lowest ratio of 1.0. In comparison, NIBL seems to have the highest average return on asset of 1.32. The average of BOKL and HBL are 1.02 and 1.16



respectively. The overall return on asset of the all three commercial banks is fluctuating in trend.

) The return on shareholder's equity of BOKL and NIBL is fluctuating and HBL is decreasing over the period of five years.

) The average of return of BOKL is 16.64 which indicates that the shareholders earned 16.64 paisa investing rupee one. By analyzing the average return, we can include that return earned by the shareholder's equity of NIBL is least i.e. 15.98% and the return of HBL is highest among three companies i.e. 28.81%.

) The earnings per share explain net income for each unit of share. It shows the market position of the market. The average earning per share of BOKL is Rs.23.18. The average earning per share of HBL is Rs.67.08. Similarly, the average earnings per share of NIBL are Rs.42.34. Among the three, HBL has the highest earning per share.

) Dividend per share is the earning distributed to ordinary shareholders. The analysis shows among the three banks HBL has paid the highest average dividend of Rs.20.76 and BOKL has paid the least of Rs.11.55, which is less than the dividend paid by NIBL of Rs.12.00.

) 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 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 8.6% with an average long-term debt of Rs.247.88 m, which in comparison to BOKL and NIBL is lesser. Where, BOKL and NIBL have average cost of equity of 7.9% and 6.3% at long-term debts of Rs.5.23m and Rs.25.85m respectively. So, we can say that HBL has the optimum capital structure compared to the other two.
- ) The financial leverage analysis helps to evaluate the financial risk of the firm. The average degree of financial leverage of BOKL, HBL and NIBL are 5.01, 2.59 and 2.40 respectively, which concludes the BOKL is bearing the highest risk and NIBL is bearing the least financial risk among the three.
- ) BOKL has positive correlation between TD and SHE of 0.86 i.e. they deviate in the same direction. Likewise, the probable error is 0.486, less than correlation coefficient, i.e. relationship between TD and SHE is significant. In case of HBL the correlation coefficient is 0.97, closer to 1 and positive. The  $\sigma$  (P.E.) of HBL is 0.108 which shows that the value of  $r$  is significant. Similarly, in the case of NIBL, the correlation coefficient is 0.97. The  $\sigma$  (P.E.) of respective correlation is 0.108 which indicates that the value of  $r$  is significant.

- ) Correlation coefficient and PE ratio between long-term debt and earnings per share of BOKL, HBL and NIBL shows that there is negative correlation and insignificant relationship as PE is greater than correlation coefficient.
- ) The correlation coefficient between EBIT and interest of all the three banks are positive. In case of BOKL, the value is not significant since  $r$  is less than P.E. In the case of HBL, the value is significant as  $r$  is greater than P.E. in the case of HBL, the value is significant as  $r$  is greater than P.E. similarly, in case of NIBL, the P.E. is negligible and correlation is almost 1, which shows it is significant.
- ) The correlation coefficient between EBIT and DPS of BOKL is -0.41 and  $\sigma$  (P.E.) is 1.51 indicating negative and insignificant correlation. In case of HBL and NIBL the correlation is positive and less than probable error indicating insignificant correlation.

## **CHAPTER 5**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

This is the concluding chapter of this study. This chapter is divided into three sections: Summary, Conclusions and Recommendations. In this

chapter, we summarize the study in brief. In the last section of this chapter some recommendations have 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.

## **5.1 Summary**

In this study, to analyze about capital structure, three commercial banks have been chosen. These banks are Bank of Kathmandu Ltd., Himalayan Bank Ltd. and Nepal Investment Bank Ltd. All these banks are listed in NEPSE. To make the study more reliable, the whole study has been divided into five chapters. The summary of each chapter are presented below.

First chapter starts with historical background of the study. In this chapter an introduction to banking industry in Nepal, introduction of the banks 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., Himalayan Bank Ltd., and Nepal Investment 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 of 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.

In second 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.

In third chapter, the steps to adopt realistic study needed for the researchers 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 data used in 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. Detail calculations presented in this chapter are shown as appendix, which is presented after fifth chapter.

At the end, summary of the study are presented in brief to understand the whole of the study instantly after which conclusion of the study with recommendation are presented.

## **5.2 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 techniques 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, which means that about 99.9% of the total debt is contributed by current liabilities.

Similarly, HBL has the average ratio is 1.15%. Likewise, 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 1%. Similarly, HBL has the average of 18%. At the same time, in case of NIBL, the average long-term debt to capital employed ratios is 5% we can conclude that all the companies do not have appropriate ratio of long-term debt to capital employed and among the three in average HBL has employed more of the long-term debt in the capital than the other two.

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, HBL and NIBL is negligible which concludes that the debt used as the capital are negligible.

Debt equity ratio shows in the BOKL the creditors have 1.4% claims on the assets, which is very lowest among the three banks. It also indicates that

the company has lesser amount to be paid as interest on debt. In case of HBL, the claim of creditors is 51.55%, which is higher than that of owners of the company. Similarly, in case of NIBL, the claim is 14%, indicate that the claim of owners is higher than the creditors.

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 1.38, HBL is 1.65 and NIBL is 1.74, which shows that all the samples banks are able to cover the interest but as the higher interest coverage ratio is better, NIBL seems to have higher ratio than other two banks.

In regards of the comparative position of return on total assets of the three commercial banks NIBL seems to have the highest return of 1.32 in comparison of 1.02 of BOKL and 1.16 of HBL.

The return on shareholders' return of BOKL shows the average ratio of 16.64% and it has fluctuating trend. The data indicates that BOKL has instable return. Similarly HBL has decreasing trend and the average of 38.95%. Likewise, the return on shareholder's equity of NIBL has decreasing trend up to fiscal year 2002 after that it is increasing with the average ratio of 15.98%. By analyzing the average ROSHE, we can conclude that return earned by the shareholder's equity of NIBL is least i.e. 15.98% and the return of HBL is highest among three companies i.e. 28.8%. So we can conclude that all three companies should apply suitable action to increase ROSHE.

Earnings per share of an organization show the strength of the share in the market. The average earning per share of BOKL is Rs.23.18. Similarly, the

average earning per share of HBL is Rs.67.08 and the average earnings per share of NIBL are Rs.42.34. Among the three, 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.11.55. Similarly, HBL shows an average DPS of Rs.2076. Again NIBL shows an average DPS of Rs.12.00. Among the three, HBL has paid the highest dividend.

Net income approach is the dependent hypothesis of capital structure, which states with the increased use of leverage, overall cost of capital declines and the total value of 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, HBL and NIBL are 1436.34, 4114.19 and 2053-23 respectively and the average cost of capitalization rate is 28.78%, 22.21% and 15.06% respectively. From the calculation it can be concluded that HBL has the better capital structure in comparison with the other two.

Net operating income (NOI) 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 "ke", we can conclude that NIBL has lesser 'ke' i.e. 6.3% than BOK i.e. 7.9% and HBL i.e. 8.6%.



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 BOK is using high long-term debt and so is bearing the highest risk among the three. But it can also be concluded it is taking corrective actions to decrease its risk since the trend is decreasing. HBL has moderate finance risk and NIBL has employed less long-term debt. So it has lesser financial risk.

Considering the correlation coefficient and probability error calculated the correlation coefficients are positive and P.E. are greater than the total debt and shareholder's equity deviate in the same direction and relationship between total debt and correlation coefficient are significant. Likewise in the case of EBIT and interest the correlation coefficient are positive and significant in relationship.

In the case of long-term debt and earnings per share the correlation coefficients of all three are negative which concludes that the negative correlation exists between the two variables. Since, P.E. in all cases are greater than correlation, the relationship between LTD and EPS is insignificant.

In the case of EBIT and DPS, BOKL shows negative correlation and P.E. is greater which shows significant relationship but in the case of HBL and NIBL, it shows positive correlation but insignificant relationship between the two variables.

### **5.3 Recommendations**

In this section of the 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 give bit more attention in this matter and try to manage their activities accordingly.

Observing the return on shareholder's equity, earning per share dividend per share, return on assets, BOKL seems to have better capital structure but with greater financial risk than the other two. The companies along with the return should also consider the risk associated. The company's 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 lease 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 investment etc it increases the return and decreases risk.

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