CHAPTER - I
INTRODUCTION

1.1 Background of the Study

The development of a country is measure on its economic indices. Nepal has been facing problem of accelerating the economic development. Economic development of the country largely depends on the development of industry, agriculture, trade, service, commerce, bank, market etc. Nepal, like other country has been laying emphasis on the uplifting of its economy.

The capital structure occupies an important place in the theory of financial management. The capital structure refers to the proportion of dept and equity capital. The financing decision of a firm relates to the choice of proportion of debt and equity to finance the investment requirement of which a proper balance is necessary to ensure a trade off between risk and return to the shareholder. An optimal capital structure, which consists of reasonable proportion of debt and equity, can help to maximize the value and ultimately the shareholders wealth.

In Nepal, some companies do not plan capital structure and it develops the financial decisions taken by the financial manager without any formal planning. Those companies may prosper in the short-run, but ultimately they will face great difficult in raising funds to finance their activities. The unplanned capital structure of the companies will also fail to economize the use o f their funds. Thus, it is being increasingly realized that a company should plan its appropriate capital structure to maximize the use of funds and be able to adapt more easily to changing condition.

The research is concerned with the study of capital structure management of some selected commercial banks. To describe the capital structure of any firm the long- term source of funds is necessarily used. Well financial performance depends on optimal capital structure. The term capital refers to the long- term funds like debt equity. The capital mix, which leads to the maximum value and minimum cost of capital, is optimal capital structure, which can be obtained by changing the financing mix.

Composition of capital structure is one of the most important components of solvency analysis. Capital structure refers to a company's sources of financing and its economic

attributes. Capital structure is usually measured in terms of the relative magnitude of the various financing sources. A company's financing stability and risk of solvency depend on its financing sources and the types and size of various assets its own. Common size and ratio analysis of capital structure are preliminary measures of the risk of the company's capital structure. The higher the proportion of debt, the larger the fixed charges of interest and debt repayment and the greater the likelihood of insolvency during period of earnings decline or hardship. Capital structure measures serve as screening devices (Bernstein and Wild.1997; 58)

1.2 A Brief Introduction of Selected Banks

In global prospective, commercial banks plays vital role on development of country's economic condition. There are many commercial banks established in Nepal. During the last two and half decades the Nepalese Financial System has grown significantly. At the beginning of 1980s, there were only two commercial banks and two development banks in the country. After the adoption of economic liberalization policy, particularly the financial sector liberalization that paved the way for establishment of new banks and non-bank financial institutions into the country. Consequently, by the end of mid – July 2011, altogether 265 banks and non- bank financial institutions

Licensed by NRB are in operation. Out of them, 32 are "A" class commercial banks, 76 "B" class Development banks, 79 "C" class finance companies, 18 "D" class micro-credit Development banks, 15 saving and credit co-operatives and 45 NGOs.

1.2.1 NABIL Bank Limited (NABIL)

Nepal Arab Bank Limited (NABIL) is the first joint venture commercial bank of Nepal which was established on 12th July 1984 A.D. under the Commercial Bank Act, 2031 (1974 A.D.) and the company Act 2021 B.S. (1965 A.D.) and it was listed in NEPSE in 1986 A.D. (2042/09/08 B.S.). NABIL Bank was incorporated under a technical service agreement with Dubai Bank Limited and was renamed as Nabil Bank Limited (NABIL) on 1st January 2002. In the beginning the authorized capital of this bank was Rs.100 million and paid up capital was Rs.28 million 400 thousands. The 50% share of NABIL own by Dubai Bank Limited (DBL) was transferred to Emirates Bank International Limited (EBIL); Dubai later on EBIL sold its entire 50% share to National Bank Limited, Bangladesh (NBLB). Now, NBLB is managing the bank in accordance with the technical services agreement signed between it and the bank of

June 1995. The bank introduced on Automatic Teller Machine (ATM) first time in Nepal.

Capital Structure of NABIL Bank Ltd.

The capital structures of NABIL Bank Ltd. of the fiscal year 2006/07 and fiscal year 2010/11 are as follows.

Table No. 1. 2.1

Capital Structure of NABIL Bank Ltd.

(Rs. in Millions)

	2006/07	**2010/11**
Authorized Capital	500	2100
Issued Capital	491.6544	2029.77
Paid-up Capital	491.6544	2029.77

1.2.2 Himalayan Bank Limited (HBL)

Himalayan Bank Limited (HBL) was established in 1992 A.D. (5th Magh 2049 B.S.) under company act 1964 and commercial Bank Act 2031 B.S. by the distinguished business personalities of Nepal in partnership with employees provident fund and Habib Bank Limited, one of the largest commercial bank of Pakistan. In other words, it is a joint venture bank with Habib Bank Limited of our SAARC country, Pakistan. This is a first joint venture bank which is managed in Nepali chief executive. The operation of the bank started from 1993 in the month of February. It is also the first commercial banks of Nepal with maximum share holding by the Nepalese sectors. Besides commercial activities, the bank also offers industrial and merchant banking services

Table No. 1.2.2

Capital Structure of Himalayan Bank Limited

(Rs. in Million)

	2006/07	**2010/11**
Authorized Capital	1000	3000
Issued Capital	772.20	2000
Paid-up Capital	772.20	2000

1.2.3 Nepal SBI Bank Limited (NSBIL)

Nepal SBI Bank Ltd. (NSBL) is the first Indo-Nepal joint venture in the financial sector sponsored by three institutional promoters, namely State Bank of India, Employees Provident Fund and Agricultural Development Bank of Nepal through a Memorandum of Understanding signed on 17th July 1992. NSBL was incorporated as a public limited company at the Office of the Company Registrar on April 28, 1993 under Regn. No. 17-049/50 with an Authorized Capital of Rs.12 Crores and was licensed by Nepal Rastra Bank on July 6, 1993 under license No. NRB/l.Pa./7/2049/50. NSBL commenced operation with effect from July 7, 1993 with one full-fledged office at Durbar Marg, Kathmandu with 18 staff members. The staff strength has since increased to 511. Under the Banks & Financial Institutions Act, 2063, Nepal Rastra Bank granted fresh license to NSBL classifying it as an "A" class licensed institution on April 26, 2006 under license No. NRB/I.Pra.Ka.7/062/63. The Authorized, Issued and Paid-Up Capitals have been increased to Rs. 200 Crores,Rs. 186.93 Crores and Rs. 186.93 Crores, respectively. The management team and the Managing Director who is also the CEO of the Bank are deputed by SBI. SBI also provides management support as per the Technical Services Agreement. Fifty five percent of the total share capital of the Bank is held by the State Bank of India, fifteen percent is held by the Employees Provident Fund and thirty percent is held by the general public.

Capital Structure of Nepal SBI Bank Ltd.

The capital structure of Standard Chartered Bank Ltd. is as follows (year 2010/11 after year 2006/07)

Table No. 1.2.3

Capital Structure of Nepal SBI Bank Ltd

(Rs. in Millions)

	2006/07	**2010/11**
Authorized Capital	2000.00	2000.00
Issued Capital	186.93	1869.30
Paid-up Capital	186.93	1869.30

1.2.4 Everest Bank Limited (EBL)

Everest bank Limited (EBL) was established in 1992 A.D. under the Company Act 1964 A.D. with an objective of extending efficient banking service to various segments of the society under the Commercial Bank Act 1974 A.D. (2031 B.S.). It is a joint venture between Punjab National Bank (PNB), India and Nepali promoters with public shareholders. PNB is the largest public sector bank of India having 109 years of banking history with more than 4400 offices all over India and is known for its strong procedures and a distinct work culture. EBL was once of the first banks to introduce any Branch Banking System (ABBS) in Nepal. EBL has introduced Mobile Vehicle Banking System to serve the segment deprived of proper banking facilities through its Birtamod Branch, which is the first of its kind.

The bank at present has 15 branches in Kathmandu valley and 21 branches in outside of Kathmandu valley. Its head office is located at Lazimpat. The bank has been conferred with "Bank of the Year 2006, Nepal" by the banker, a publication of financial times, London for its spectacular performance under financial sector.

Capital Structure of Everest Bank Limited

The capital structure of Everest bank Limited is as follows: (year 2006/07 to after year 2010/11)

Table No. 1.2. 4

Capital Structure of Everest Bank Limited

(Rs. in Million)

	2006/07	**2010/11**
Authorized Capital	600	2000
Issued Capital	529.80	1281.41
Paid-up Capital	518	1279.61

1.3 Focus of the Study

The main focus of this study is to analyze the capital structure and to find out the relationship of leverage with different financial indicator of sampled bank in context of Nepal. The concept of capital structure management is not properly used in all banking sector although capital is life blood of any organization. If capital is managed properly profit can be earned by decreasing the overall cost of capital. The study will be concern to evaluate the role of capital structure on the growth of selected commercial banks in Nepal. Besides this the comparative study of capital structure management of selected commercial banks will be done.

1.4 Statement of the Problem

Banking industry in Nepal is making remarkable progress and growth but not without the problems. At the present context the main problems faced by the business sector as well as banking sector is the unstable political situation and poor economic growth of the country.

But besides these common problems faced by the banking industry is the optimal capital structure in the commercial banks. The success and prosperity to a bank relies heavily on the maximization of the wealth of the shareholders or return on equity . Nepalese banks do not take the capital structure in a proportionate way which in turn affects the value maximization of the bank.

The present study focuses on the existing capital structure management of some selected banks. More specifically this seeks to solve the answer of following question.

1) Does the capital structure of the bank affects growth or not?
2) How are the commercial banks managing their financial needs?
3) What type of capital structure policies the commercial banks have followed?
4) What is the relationship of leverage with different financial indicators?
5) What are the determinants of capital structure in Nepalese context?
6) Do the banks are enjoying the optimal capital structure?

1.5 Objectives of the Study

The main objectives of this study is to analyze the capital structure and its affect on the risk and returns of the sampled commercial bank on the context of Nepal. The specific objectives are given below.

1. To evaluate the role of capital structure on the growth of selected commercial banks in Nepal.
2. To find out the relationship of leverage with different financial indicator.
3. To determine structure and pattern of the capital structure of the selected commercial banks in Nepal.
4. To identify and analyze the determinants of capital structure.
5. To examine management views on various aspects of the capital structure.
6. To provides useful suggestion for the further study of banks on the basis of the findings of the study

1.6 Significance of the Study

Since capital structure is essential indicators of company's financial decision making, it is to a large extent a determinant of company's profitability. As it is a well known fact that the commercial banks can affect the economic condition of the capital structure policy of commercial banks. The study would help them to take corrective actions to optimize the value of the bank by using optimal capital structure. Thus the analysis of selected company's capital structure through this study will lead to shed light on their financial performance and hope it will be useful for further research.

1.7 Limitation of Study

This study will be carried out with certain methodological and conceptual limitations which are as follow;

1. The study will be mainly based on secondary data. So the reliability of this study depends upon the accuracy of published data.
2. The data will be collected from listed banks, which will have the availability of data for 5 consecutive years from 2006/07 to 2010/11 to study the determinants of capital structure.
3. For quantitative analysis, Microsoft Excel 2007 software program is used. Hence the limitations of these programs will also inherent.

4. There is abundant literature in capital structure theories including hundreds of empirical studies; this study will not able to review all those literature.
5. This study will focused on determinants of capital structure, relationship of leverage with different financial indicator and capital structure patterns. This study will not shed light on cost of capital, which is another most important parameter of capital structure theory.

1.8 Organization of the Study

This study has to be completed within the format of Faculty of Management, T.U. So the research has been divided into five chapters. They are as follows:

Chapter- I Introduction

The introduction chapter includes the background of the study, origin and growth of modern banks, development of joint venture banks in Nepal, brief introduction of sample joint venture banks, statement of the problem, objectives, significance limitations and organization of the study etc.

Chapter-II Review of Literature

The second chapter focuses on review of literature. It contains the review of books, reports, thesis and journals etc.

Chapter –III Research Methodology

The third chapter deals with the research methodology to be adopted for the study consisting research design, sources of data, population and sample and method of data analysis etc.

Chapter-IV Presentation, Analysis and Interpretation

The fourth chapter deals with presentation, analysis and interpretation of data. This is the main part of study. Obtained data are presented in the tabular and other forms. Various statistical presentations are used for analyzing the collected data from different sources. Actual results are obtained after analysis of data by using financial and statistical tools and techniques. Major findings are drawn after analysis of data.

Chapter-V Summary, Conclusion and Recommendation

The last chapter will concerned with the major findings of the study, conclusion drawn from the findings and the recommendation of this study.

CHAPTER – II
REVIEW OF LITERATURE

2.1 Conceptual Framework

The review of literature is an important aspect of planning of the study. For the purpose of getting the knowledge about the topics i.e. understanding the meanings, knowing the views of different authors and scholars and exploring the findings of various researchers; the literature review is done. It deals with the basic concept of the factors which are needed for capital structure and cost of capital. This chapter is concerned with the review of relevant literatures available in the books, Journals, articles, research reports, newspapers and policy documents which are published or unpublished. Every study is very much based on past knowledge, study and experiences. The past knowledge or previous studies should not be ignored as it provides foundation to the present study. Various thesis works have done in different aspects of working capital of different organization are also reviewed for the purpose of justifying the study.

This section discuss briefly about the theoretical concept regarding the theories of capital structure, financial leverage, profitability and cost of capital.

2.2 Introduction of Capital Structure

In simple sense, the structure of capital formation of an organization is known as capital structure. Capital structure refers to the combination of long-term sources of funds, such as, terminal debt, preference stock, and common equity including reserves and surpluses. In other words, the mix of long term debt and equity maintained by the firm is called capital structure. It represents the relationship among different kinds of long-term sources of capital and their amount.

The long term funds of the firms are financed by two major components, i.e. debt capital and equity capital. Debt capital includes long term funds provided by the firm's owner. Capital structure is one of the most complex areas of financial decision making due to its inter-relationship with other financial decision variables. A financial manager must understand the firm’s capital structure and its relationship to risk, return and value for attainment of its primary objective of wealth maximization.

A financial manager must strive to obtain the best financing mix or optimum capital structure for his/her firm. The firm's capital structure is optimum when the market value of share is maximized. The use of debt affects the return and risks of shareholders; this will increase the return on equity but also risk at the same time when the shareholders' return is maximized with the minimum risk, the market value per share will be maximized and firm's capital structure would be optimum. Capital structure is permanent financing of the firm represented primarily by long-term debt, preferred stock and common stock, but excluding all short term credit.

Capital structure decision is one of the most important decisions that are taken by financial manager. It is because the capital structure affects weighted average cost of capital (WACC), value of the firm and risk position of the firm. The optimal capital structure is the combination of debt, preferred stock and common equity that minimizes that WACC. At the capital structure where the WACC is minimized, the value of the firm securities is maximized. As a result, the minimum cost of capital structure is called optimal capital structure.

Some definitions of capital structure are as follows:

"Capital structure refers to the mix of long term sources of fund, such as debenture, long-term debt, preference share capital and equity share capital including reserves and surpluses i.e. retained earnings." (Pandey, 1981).

"Capital structure is concerned with the analyzing the capital composition of the company." (Western and Brigham, 1996).

"The optimum capital structure may be defined as that capital structure or combination of debt and equity that leads to the maximum value of the firm." (Khan and Jain, 1997).

"Capital structure is the mix (or proportion) of a firm's permanent long term financing represent by debt, preferred stock and common stock equity." (Van Horne, 2007).

Hence by all these definition it conclude to only one think that is the mixture of debt and capital should be done in a optimal way from which we can get maximum result.

Nowadays almost in every company debt and equity are used. In some companies more amount is collected from the equity where as in other companies more amount is collected from debt capital. The ratio of collecting such amount varies from company to company. The sources of equity and debt capital are as follows:

1. Equity Capital

The amount of capital, which has been collected from the selling of share, is known as equity capital. There can be different types of shares as

a) Common Stock
b) Preference Stock
c) Bond
d) Retained Earning

In capital certain amount is provided to the shareholders who are regarded as a dividend. So, all the shareholders will receive dividend for investing their capital in the shares.

2. Debt Capital

This is another source of money collection to run the company. Here t eh debt capital is used in the company and certain amount of interest is paid to the creditors. There can be various debt in terms of expire of time.

a) Short-term Debt
b) Long-term Debt

2.3 Assumptions of Capital Structure

Capital structure theory has some assumptions which are as follows:

1. There are only two sources of funds used by a firm: Long-term debt and equity capital
2. There are no existences of corporate income taxes. The assumption is removed later.
3. The dividend payout ratio is 100% i.e. the total earnings are paid out as cash dividend to the shareholders and there is no retained earnings.
4. The firm's total assets are given and do not change. The investment decisions are in other words, assumed constant.

5. The firm's total financing remains constant. The firm can change its degree of leverage either by selling shares and use the proceeds to retire debentures or by raising more debt and reduce the equity capital.
6. The net operation income (NOI or EBIT) is not expected to grow.
7. All investors are assumed to have the same subjective probability of the future expected EBIT for a given firm.
8. The firm's business risk is constant over the time and it assumed to the independent of its capital structure and financial risk.
9. The firm is expected to continue indefinitely (i.e. perpetual life of the firm).

2.4 Theories of Capital Structure

Regarding capital structure different kinds of theories are propounded by different personalities. Some of the main types of theories are:

1. Relevant Theory (Capital Structure affects the value of firm)
    i. Net Income (NI) Approach
    ii. Traditional Approach
2. Irrelevant Theory (Capital Structure does not affect the value of the firm)
    i. Net Operating Income (NOI) Approach
    ii. Modigliani and Miller Approach

2.4.1 Net Income (NI) Approach

David Durand proposed the net income approach. This approach states that firm can increase its value or lower the cost of capital by using the debt Capital (David, 1959). According to NI approach, there exists positive relationship between capital structure and valuation of firm and change in the pattern of capitalization bring about corresponding change in the overall cost of capital and total value of the firm. Thus, with an increase in the ratio of debt to equity, overall cost of capital will decline and market price of equity stock as well as value of firm will rise (David, 1959). 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 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 increase 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 attends 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 summary, as per NI approach, increases in ratio of debt to total capitalization being about corresponding increase in total value of firm and decline in cost of capital. On the contrary, decreases in ratio of debt to total capitalization causes decline in total value of firm and increase cost of capital. Thus, this approach is appeared as relevancy theory. This approach is based on the following assumptions:

Assumptions of Net Income Approach

i. The cost of equity and debt remain constant to the acceptable range of leverage
ii. The corporate income taxes do not exist.
iii. The cost of debt rate is less than the cost of equity.
iv. 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.

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 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).

2.4.2 Net Operating Income (NOI) Approach

NOI approach is another behavioral approach suggested by Durand David. This approach is diametrically opposite from NI approach with respect to the assumption of the behavior of equity holders and debt holders. The essence of this approach is 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 chance in degree of financing. Leverage does not bring about any change in the value of firm and cost of capital.

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

Assumptions of Net Operating Income Approach

i. The market capitalizes the value of firm as a whole. So, splitting of debt and equity has no importance.
ii. Cost of debt remains constant
iii. The market uses an overall capitalization rate (K_o) to capitalize the net operating income. K_o depends on the business risk. If the business risk is assumed to remain unchanged, K is constant.
iv. Cost of equity increases as leverage is increased.
v. The corporate income tax does not exist.

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

$K_e=K_o+(K_o-K_d)D/E$ ---------- 2.1

Where,

K_e = cost of equity

K_d = cost of debt

K_o = cost of overall capital

D/E = debt equity ratio

If K_o and K_d are constant "K_e" would increase linearly with debt equity ratio

According to the assumptions, the relationship between financial leverage, of capital and total market value of firm are shown below.

Figure : 1 The effect of leverage on cost of capital

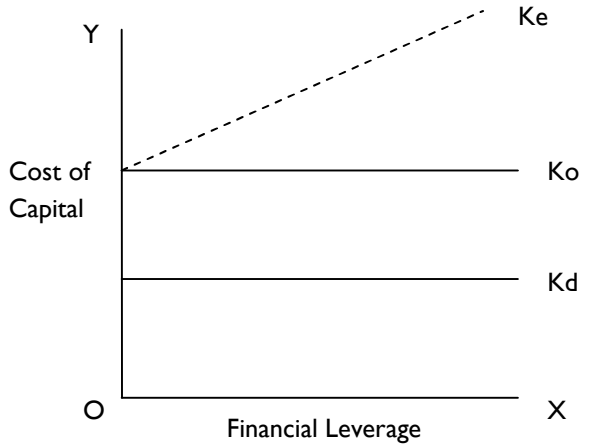
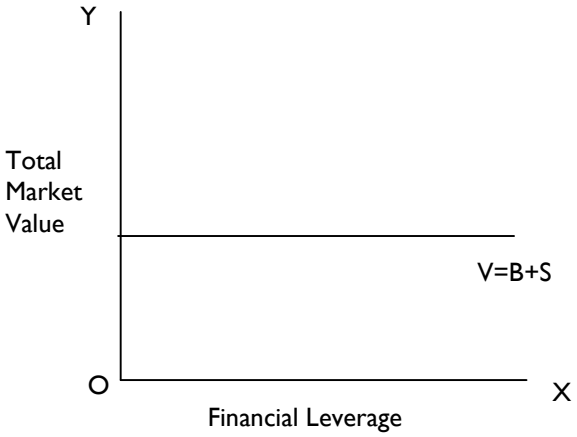


Figure : 2 The effect of leverage on total market value of the firm



In the figure, it is shown that the curve K_o and K_d are parallel to the horizontal X axis and K_e is increasing continuously. This is because K_o and K_d remain constant under all the circumstances but the K_e 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 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 firms cost of capital and its market value are not influenced by the use of additional cheap debt fund

2.4.3 Traditional Approach

The traditional approach of capital structure theory has been popularized by Ezra Soloman, which is also known as intermediate approach, is compromise between NI and NOI approach. According to this view, the value of the firm can be increased or the judicious mix of debt and equity capital can reduce the cost of capital. In addition, the cost of capital decreases with the reasonable limit of debt and then increase with leverage. Thus an optimal capital structure exists when the cost of overall capitalization rate is minimum on the value of the firm is maximum. Under this approach, the line of equity capitalization rate is higher than debt capitalization rate. It means the debt funds are cheaper than equity funds.

The aggregate rate of debt capital and equity capital is called overall cost of capital or overall capitalization rate. This rate will be less than the cost of equity and higher than cost of debt. 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.

First State: Increasing Value

The first stage starts with the introduction of debt in the firm's structure. In this stage, the cost of equity (K_e) either remained constant or rises slightly with debt because of the added financial risk. But it does not increase fast enough to offset the advantage of low cost debt. In other words, the advantage arising out of the use of debt is so large that, even after allowing for higher cost of equity, the benefit of the use of the cheaper sources of funds are still available. As a result the value of the firm (V) increases as the overall cost of capital falls with increasing leverage. During this stage, cost of debt (K_d) remains constant or rises only modestly. The combined effect of all these will be reflected in increase in market value of the firm and decline in overall cost of capital (K_o).

Under this assumption, K_e remains constant for some condition of debt then the value of firm will be,

$$V = \frac{NOI}{Ke} + (Ke - Kd)\frac{D}{Kd} \quad \ldots\ldots\ldots\ldots (2.2)$$

As long as K_e and K_d are constant, the value of the firm increases at the constant rate when amount of debt increases.

Second Stage: Optimum Value

In the second stage, when the firm has reached to a certain degree of financial leverage, further application of debt will increase the cost of equity due to the added financial risk that offsets the advantages of low cost debt. Hence, the total market value of the firm remains unchanged within the range of such debt level or at a specific point; the value of the firm will maximum or the cost of capital will be minimum.

Third Stage: Declining Value

Beyond the acceptable limit of leverage, the value of the cost of capital increases with the additional leverage. This happen 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.

As a result, K_o declines with moderate use of leverage. After a point, however, the increase in K_e more than offset the use of cheaper debt funds in the capital structure, and K_o begins to rise. The rise in K_o is supported further once K_d begins to rise. The optimal capital structure is point N. thus, the traditional position implies that the cost of capital is not independent of capital structure of the firm and there is an optimal capital structure.

2.4.4 Modigliani-Miller (M-M) Approach

Modigliani and Miller approach (propounded by Modigliani and Merton H. Miller) also relates with irrelevant theory which means capital structure of the firm will not affect the value of the firm. So they came in one agreement that whatever rational choice of debt and equity will have some cost of capital. So in the approach we don't have optimum mix of debt and equity. As long as business risk remains the same the

cost of capital will remain constant. As the firm increase the amount of leverage in its capital structure, the cost of debt capital remaining constant the cost of equity capital will rise just enough to affect the gains resulting from application of low cost of debt.

Assumption of M-M Hypothesis (I.M. Pandey, 1981)

i. Perfect competition market environment where information relating investment is freely accessible there involves no transaction cost. In addition to this, investors are free to sell and buy the securities. A can borrow without any restriction at the same rate as corporation does. All investors are rational and no investor can influence the market.
ii. The individual investors may have the different views as to the shape of the profitability distribution, but expected rate of return for all in is assumed the same.
iii. The division of the income between cash dividend and retained earnings in any periods is a more detail or dividend payout ratio is 100%.
iv. There are no income taxes. Modigliani and Miler remove this assumption later.
v. Homogeneous business risk

Assumption of M.M. hypothesis can be classified into two ways:

i. M-M. hypothesis with no taxes
ii. M-M hypothesis with taxes

M-M hypothesis with no taxes is identical to net operating income approach, which has already explained.

According to Modigliani and Miller hypothesis with taxes, the value of levered firm must be greater than value of unlevered firm by the amount of debt tax shield.

a) Debt tax shield when corporate tax is given;

Present value of Debt tax shield = B x T …… (2.3)

Where,

B = value of debt

T = corporate tax

b) Debt tax shield when corporate and personal taxes are given, present value of Debt tax shield=B x $\left[1-\frac{(1-t)(1-t_{cs})}{(1-t_{d})}\right]$--------- (2.4)

Where,

T = corporate tax

t_{cs} = personal tax on common stock

t_d = marginal personal tax on debt

Based on the above assumption, the M-M hypothesis gave two propositions- proposition I and proposition II. These propositions are discussed below:

Proposition I

According to assumption of M-M hypothesis that for firm in same class business risk, the value of the firm is independent of its capital structure i.e. financial leverage. This is their proposition it can be expressed as follows.

$$V = (S + B) = \frac{X}{Ko} = \frac{Nol}{Ko} \text{ ---------- (2.5)}$$

Proposition I can be stated in an equivalent way in terms of the firms overall cost of capital (K_o), which is the ratio of the market value of all its securities.

That is,

$$\frac{X}{(S+B)} = \frac{X}{V} Ko \text{ ---------- (2.6)}$$

If defining as "k_d" expected return on the firm's debt and "K_e" expected return on the firm's equity than expected net operating income is given as,

$X = K_{ov} = K_e \text{ x } V + K_d \text{x } B$

As given in equation (2.6) by definition,

$K_o = X/V$

$$Ko = K_e \frac{B}{S+B} + Kd \frac{B}{S+B} \text{ ---------- (2.7)}$$

It can be expressed as follows too,

$V_L = V_U = X/Kou$

Where,

Kou= Cost of overall capital of unlevered firm

V_L= Value of levered firm

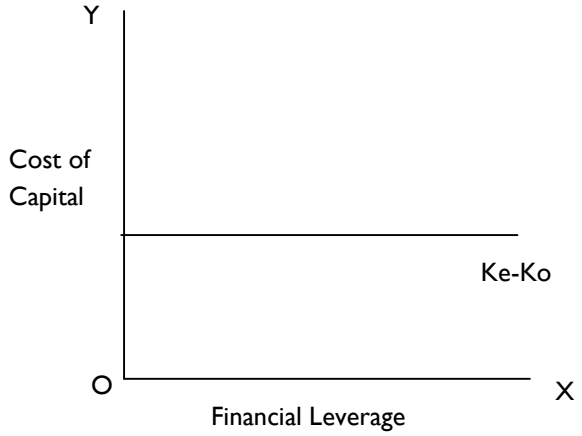
V_U= Value of unlevered firm

M-M concluded that the total market value of the firm is unaffected financing mix, it follows that the cost of capital is independent of the capital structure and is equal to the capitalization rate of pure equity stream of its class.

Graphically, it can be shown as follows:

Figure: 3 Effect of Leverage on Cost of Capital

(M-M Hypothesis- Proposition I)



The cost of capital function as hypothesis by M-M through proposition I shown above in figure. It is evident from this that average cost of capital is a constant and is not affected by leverage.

Proposition II

Based on proposition I, M-M formulated proposition II which defines that cost of equity is the linear functions of the leverage. The M-M hypothesis argues that cost of capital K_e is equal to constant average cost of capital K_o plus a premium for the financial risk. The equation form of this proposition can be expressed as follows,

$K_e = K_o$ + Risk premium ---------- (2.8)

The premium for financial risk equals to the difference between equity capitalization rate K_e and cost of debt multiplied by the ratio of B/s, that is

$K_e = K_o + (K_o - K_e) \times B/S$----------(2.9)

Validity of the M-M proposition II depends upon the assumption of 'K_e' constant for any degree of leverage. But in real business world 'K_e' increases with leverage beyond a certain acceptable level of Leverage.

According to this assumptions,

$K_{OL} = K_{OU}$

Where,

K_{OL}=Cost of overall capital of levered firm

K_{OU}= Cost of overall capital of unlevered firm

The relation between leverage, cost of capital and value of firm is shown graphically.

Figure: 4 Effect of Leverage of Cost of Capital

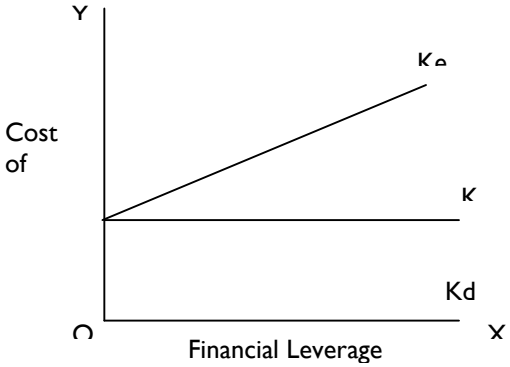
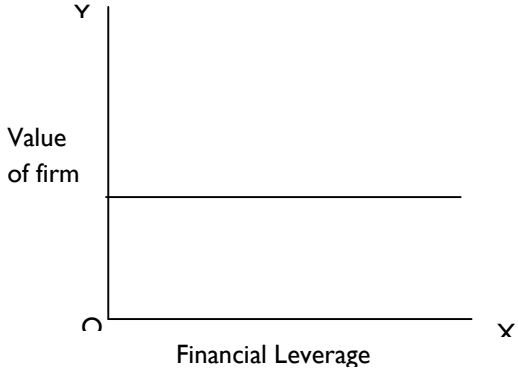


Figure: 5 Effect of Leverage on Value of Firm



2.5 Factors Affecting Capital Structure

Capital structure of different types of firms varies widely. There are no hard and fast rules about what percentage of capitalization should be represented by bonds and debentures and what should be of equity shares and preference shares. Factors affecting capital structure revolve principally around the adequacy and stability of earnings. Followings are the factors which affect the capital structure.

1. Cost of Capital

"The impact of financing decisions on the overall cost of capital should be evaluated and the criteria should be to minimize the overall cost of capital or to maximize the value of the firm" (Pandey, 1988: 264).

2. Assets Structure

Firms whose assets are suitable as securities for loans tend to use debt heavily. "Borrowed capital should not exceed a reasonable percentage of fixed assets".

3. Flexibility

"The Company's desire for flexibility in future financing decision also affects the capital structure of the company. Therefore the company should compare the benefits and cost of attending the desired degree of flexibility and balance then properly" (Schwartzman and Ball; 1977: 65).

4. Control

If management has voting control over the company and is not in a position to buy any more stock, debt, may be a choice for new financing. On the other hand, management group that is not concerned about voting control may decide to use equity rather than debt.

5. Profitability

The firms with very high rate of return on investment use relatively little debt. Their rate of return enables them to do most of their financing with retained earnings.

6. Taxes

Interest is deductible expenses while divided are not deductible. Hence the higher a firm's tax rate, the greater is the advantage is using debt.

7. Interest Rate

This affects the choice of securities to be offered to investors. High interest makes financing costly. When fund are obtained easily and cheaply there is greater attitude for choice of types of security to be used.

8. Operating Leverage

The Company with a high level of earnings before interest and taxes can make a profitable use the high degree of leverage to increase return on the shareholder's equity. This increases the apportion of debt.

9. Floatation Costs

Floatation cost is incurred only when the funds are raised. The cost of floating a debt is less than cost of floating and equity issue. This may encourage a company to use debt than issue equity shares.

10. Market Condition

Conditions in the stock and bonds market undergo both long and short term changes which can have an important bearing on a firm's optimum capital structure.

11. Growth Rate

Faster growing firm’s must rely more heavily one external capital. Other factors are stability of sales, cash flow ability of a company, nature of industry and capital requirements etc.

2.6 Optimal Capital Structure

The overall cost of capital is minimized; theoretically at least, when the firm reaches its optimum capital structure. The optimum capital structure strikes a balance between the risk and returns and thus maximizes the price of the price of the stock.

"There is no such thing as the model capital structure for all business undertakings. One way of planning the capital structure is to make it fit into a model complied from a number of different experiences that may have been drawn from the historical ratio of the firm" (Kuchal, 1977:390).

"Optimum capital structure can be properly defined as that combination of debt and equity that attains the stated managerial goals maximization of the firm's market value, and which minimizes the firm's cost of capital. As the existence of an optimum capital structure implies the simultaneous optimization of both the cost of capital and the firm's market value, occupies a central position in the theory of financial Management" (Phillippatos, 1974: 237).

"An optimum capital structure would be obtained at the combination of debt and equity that maximizes the total value of the firm (value of shares plus value of debt) or minimizes the weighted average cost of capital" (Panday, 1999: 277).

"firm has certain structure of assets, which offers net operating earnings of a given size and quality and gives a certain structure of rates in the capital market, there is some specific degree of financial leverage at which the market value of the firm's securities will be higher (or the cost of capital will be lower) than at any other degree of leverage" (Soloman, 1963:92).

Some of important objectives of the optimal structure are as follows:

1. To maximize return on equity capital
2. To minimize cost of capital
3. To minimize risk
4. To increase flexibility
5. To maintain control power
6. To employ high grade security

2.7 Review of the Thesis

Several thesis works has been done under the topic 'Capital Structure management'. Under this section various thesis related to this study have been reviewed, they are presented as follows:

Thapa (2004) has conducted research on "Study on Capital Structure Management of Gorakhali Rubber Udyog Limited." It was analyzed all the variables in the form of ratio analysis.

In these findings especially to the capital structure and profitability position, following issue had drawn.

- The debt/equity ratio was increasing every year as compared to the shareholder ratio.
- Company's debt servicing capacity was very poor due to the negative interest coverage ratio.
- The operational performance was not satisfactory due to negative earnings and low volume of sales revenue.
- The company was not able to utilize its capacity more than 50%, which has resulted the huge losses.

Sharma (2006) conducted the study on "Capital structure and its impact on cost of capital" in manufacturing and trading companies. His study was basically focused on following aspects, they are:

- To test the relationship between leverage and cost of capital in manufacturing and trading sector enterprises.
- To assess the relationship of leverage and cost of equity.
- To analysis the properties of portfolio formed on leverage.

To conduct his study, he has used simple as well as multiple regression analysis to accomplish the objectives. He found that the cost of capital can be affected by use of debt in capital structure and cost of capital decline with increase in leverage. He suggested that capital structure is not consistent so management should try to maintain their consistence capital structure. In his study, he has not done financial analysis which can make it more- clear.

Shrestha (2007) has conducted a study on the topic of "focus on capital structure of selected and listed public companies." His study was basically focused on following aspects, they are:

- To analyze the capital structure of selected and listed companies
- To access the debt servicing capacity of selected and listed companies
- To examine correlation and the significance of their relationship between different ratios related to capital structure

To conduct his study, he used data from 19 companies and study has covered different sectors manufacturing, finance, utility service and other allied area. He had found that most of these companies have debt capital relatively very higher than equity capital. Consequently, most of them are operation at losses to the extent that of interest on loan has been serious issue. Most of the losses are after charging interest on loan. He has suggested that the government has to consider in public enterprises is that of evaluating the relationship between use of debt and its impact on overall earning of public enterprises. So, the government should be sure in knowing how much debt capital will minimize return. Government of Nepal invested large amount of money in the public enterprises it should need to develop a suitable capital structure capital structure guideline to make public enterprise aware of the responsibility to repay the debt schedules. Government has to analyze cost and risk-return trade-off. Thus, capital structure needs to be made more determinate be realistic analysis of cost.

Pokharel (2008) has conducted a study on the topic of "Capital structure management and its effects on cost of capital of manufacturing and trading companies of Nepal." His study basically focused on following objectives they are:

- To highlight the capital structure management and cost of capital in general
- To know position of capital structure of manufacturing and trading companies in Nepal
- To examine the relationship of capital structure of with cost of capital in Nepalese companies

To conduct his study, he used data from 10 manufacturing and 5 trading companies. For the analysis, he used econometric analysis and analysis of the properties of port- folio formed on leverage. In this study, simple as well as multiple regression analysis is used to

accomplish the objective, cost of capital, cost of equity and tax adjusted yield are taken as department variable in the regression equation. After analysis he found that mean, average cost of capital in both sectors has same result. Average leverage, growth in total assets, size of capital employed, liquidity ratio an earning variability of manufacturing sector enterprises are more than that of trading sector enterprises on the other side, cost of equity, dividend payout ratio, tax adjusted stock yield on the manufacturing sector enterprises on less than that of trading sector enterprises.

He recommended that most of company's capital structures not consistence. Therefore management should try to maintain their consistence capital structure. Nepalese manufacturing and trading centre should be average that the debt financing results in tax advantages on interests changes that would help to maximize value of firm.

Gautam (2009) has done a study on "Capital structure of manufacturing companies using financial ratio." His study was basically focused on following aspects, they are:

- To assess the debt capacity of the selected companies
- To analyze cost of capital and return on capital in relation to the capital employed
- To analyze the financial and operating leverage effect on capital structure

To conduct his study, he used data from Nepal lube oil (NLOL) and Bottler Nepal Ltd (BNL). He used different types of ratio analysis such as debt to total assets, return on assets, EPS, DPS etc but not used statistical tools. After analysis, he concluded that profit margin on sales is the ratio of net income available to common stockholder on sales. This indicates the company should make such policy to earn high amount of profit by increasing operation efficiently. The average return on assets of NLOL has low ratio, which indicates that, the assets of these companies generating low profit. The Nepal lube oil limited to investors. After conclusion, he recommends that NLOL and BNL should increase the debt proportion in financing its assets. Both the companies are highly dependent on short term debt, it should try to adopt long-term source of debt to maximize return on assets.

Maharjan (2010) has done a study on "Capital structure and cost of capital in the context of Nepalese joint vesture banks." Her study was basically focused on following aspects, they are:

- To study the relationship between cost of capital and capital structure of selected banks
- To examine the effect of other factors such as size of firm. Growth, DPS and liquidity on cost of capital
- To test the relationship between profitability and debt equity ratio

To conduct her study, she used data from Bok Ltd, HBL, NBB and NIBL. This study used simple as well as multiple regression equipment to accomplish the objectives. It employed the simple regression equation to examine these relationship of cost of capital with each of the selected explanatory variable and multiple regression equation was used to examine the relationship between cost of capital and leverage and cost of equity and debt ratio. The study concluded that the cost of capital is declining function of leverage and the cost of equity first declines with leverage and then rises. After conclusion, she recommend that firm have to properly analyze and evaluate the investment proposal and determine whether it is beneficial or not. After making investment decision the management of the firm should be clear about the investment. It means that knowledge of capital structure and cost of capital plays vital role in investment. The analysis of cost of capital is very important in project appraisal because of the increasing cutthroat competition and critical Nepalese.

2.8 Research Gap

All the above review of thesis has been based on the research done by the previous students. Today the world has become modernized and the information technology has also been advanced, so there is a lot of difference in the modern banking system which results in the better outcome in the management and improvement in the data. The information of this very research is also based on the secondary data but many effective tools and technique are used to get the desired result as per the objective of this study. To analyze the facts financial tools as well as statistical tools are used to get the desired objective of the study. Financial tools include ratio analysis and statistical tools include mean, standard deviation, coefficient of variation, correlation of coefficient, test of hypothesis, regression analysis. There has been gap of time which differentiates the research before and after. There are not enough study conducted on the topic of capital structure of commercial banks and its impact on cost of capital. Therefore this study is also devoted to test the capital structure of commercial banks and its impact on cost of capital. This study is different in the

sense that the selected companies are different from the above previous studies. The study totally revolves around the banking and the named of selected commercials banks. This study is done considering the data of five year (2006/07-2010/11) of all the selected banks.

CHAPTER - III
RESEARCH METHODOLOGY

Research methodology is important to carry out a research, which describes the entire methodological approaches employed in the study. Mostly, in the case of the empirical studies, the consistencies of the findings are solely based on empirical methodologies it has employed. Therefore, this chapter focuses on research design, nature and sources of data, selection of samples, method of analysis and the methodological limitations of this study and described in consecutive sections.

3.1 Research Design

This empirical study attempts to analyze the capital structure patterns and determinants of Nepalese firms. It tries to analyze and describe the magnitude and direction of relationship between leverage (dependent variable) and firm specific attributes viz.; non-debt tax shield, assets structure, profitability, firm size, growth opportunities and earning volatility (independent variables). Hence, this empirical study has followed both analytical and descriptive research design.

3.2 Nature and Sources of Data

This study is based on accounting data of firms listed in Nepal Stock Exchange Limited (NEPSE) for the period of latest five years. The required data have been extracted from annual reports and financial statements of the firms available in websites of the related banks. Hence, this study mainly relies on secondary data.

3.3 Data Collection Procedure

Mainly the study is conducted on the basis of secondary data. The required data are extracted from the balance sheets, profit and loss account, annual reports, journals, internet and other sources. These crude data collected from has been properly synthesized, arranged, tabulated and calculated to meet the objectives of this research.

3.4 Population and Sample of Data

Population is the universe about which the study has aimed to enquire and the sample is the representative of the population. Since the study is concerned with the capital structure management of the selected two commercial banks, the population for the

study has, therefore been all the seventeen commercial banks which are currently in operation in our country.

For the selection of the sample from the population, judgmental sampling method has been followed. As the study comparatively analyses the capital structure performances of the four commercial banks has been selected for the study, which are as follows:

1. NABIL Bank Ltd.
2. Himalayan Bank Ltd.
3. Nepal SBI Bank Ltd.
4. Everest Bank Ltd.

3.5 Tools for Data Analysis

Data collected for the study can be presented in various forms. Most of the secondary data has been presented in tabular forms and some graphical presentation can also be taken into account. As far as the different computation is concerned it has been done with the help of scientific calculator and some other computer software program.

Appropriate financial statistical tools have been used according to the nature and type of data as well as subject matter. The major tools employed fir the analysis of the data is ratio analysis, which establishes the numerical relationship between the two variables of the financial statement.

I. Financial Ratio Analysis

Financial analysis is the process identifying the financial strength and weakness of the firm by properly established relationship between the items of the balance sheet. In this study ratio analysis is used as the financial tool for the data analysis. Ratio analysis is a technique of analyzing and interpreting financial statement to evaluate the performance of an organization by creating the ratios from the figures of different accounts consisting in balance sheet and income statement. Even though there are many ratios only those ratios which are related to this study have been covered. This study contains following ratios:

a. Debt to Equity Ratio

The debt to 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 claim of creditors and shareholders against the assets of the firm. The relationship between outsiders and owner's capital can be shown by debt – equity ratio. It is should be calculated as follows:

$$\text{Debt to equity ratio} = \frac{\text{Long Term Debt}}{\text{Shareholder's Equity}} x\,100\%$$

This ratio is also known as debt to net worth ratio. A high debt –equity ratio indicates that the claims of the creditors are greater than that of the shareholder's /owners of the company.

b. Total Debt to Total Assets Ratio

The total debt to total assets ratio measures financial leverage the company. The total debt to total assets is calculated by using following formula.

$$\text{Total debt to total assets ratio} = \frac{\text{Total Debt}}{\text{Total Assets}} x\,100\%$$

The higher ratio of total debt to total assets ratio shows the higher contribution of debt to the capital structure and vice versa.

c. **Interest Coverage Ratio**

Interest coverage ration also known as time interest earned ratio. This ratio measures the debt servicing capacity of the organization firm, so a far a fixed interest on long term loan can earn. It is determined by following formula:

$$\text{Interest coverage ratio} = \frac{\textit{Earning Before Interest and Tax}}{\textit{Interest}}$$

Higher the interest coverage ratio indicates the company strong capacity to meet interest obligations. A firm always prefers high interest coverage ratio because low interest coverage ratio is danger signal for the firm coverage ratio is danger signal

for the firm which means the company is using excessive debt and does not have ability to assured the payments back to its creditors

d. Return on Total Assets

Returns on total assets ratio measures the profitability of a firm that explains a firm to earn satisfactory return on all financial resources invested in the banks assets. The ratio explains net income for each unit of assets. It should be determine by using following formula

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

The higher the ratio the higher return on assets of the company

e. Returns on Shareholders Equity

Since shareholders are the owners of the company they want to have good return on their investment . So for this, we use this return on shareholders equity ratio to measure the return of shareholders. This ratio helps to analyses whether the company has been able to provide higher return on investment in its owners or not. This ratio can be calculated as:

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

Higher ratio represents the higher profitability of the firm and vice versa. So obviously a company's owners prefer higher return on shareholder equity and also shareholder invests the higher return's company.

II. Statistical Tools

Various approaches have been developed under the relevancy of capital structure which helps to evaluate the value of the firm. Such as net income approach (NI), net operating income approach (NOI), traditional method and MM approach. All these approaches are based on the market value. Practical used of other approaches are as bit complex. Thus NI and NOI approaches are used in this study.

a. Arithmetic mean

Arithmetic mean also called 'the mean ' or ' average. Arithmetic mean is the most popularly and wisely used method of measuring central tendency. It is the ratio of sum of all observations. It is calculated from an grouped data and frequency

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

Where, $\overline{X}$ = Mean average

$\sum$ = summation

N = No of years

b. Standard deviation

Standard deviation is the most popular and most useful measures of dispersion and gives uniform, correct and stable results. The main characters of standards deviation are that it is based on mean. It is also known as a risk. Furthermore a standard deviation is always a positive number and it is superior to the mean deviation. A standard deviation is the positive square root of average sum of squares of deviation of observations from the arithmetic mean of the distribution.

$$\text{Standard deviation} = \sqrt{\frac{\sum\left(X - \overline{X}\right)^2}{N-1}}$$

Where, $\sum$ =summation

X = sample data

$\overline{X}$ =average mean

N= no of years

c. Correlation Coefficient (r)

Correlation coefficient is for the purpose of comparison and further analysis. It is necessary to get numerical measure for the correlation between two variables. A relative measure of this type is developed by Karl Pearson's coefficients of correlations or products movement's correlations coefficients. It measures the relationship between two or more than two variables and they are so related that the change in the value of one variable is accompanied by change in the value if the other or. It indicates the direction of relationship among others. It is denoted by (r) the correlation coefficient can calculated as:

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

Where,

N = number of observations

X and Y are variables

The decision criteria are:

When,

r = 0, there is no relationship between the variables

r = 1, the variables are perfectly positive correlated

r = -1, the variable are perfectly negative correlated

d. Probable error(P.E)

The degree of reliability of computed correlations can be judged with the helps of its probable error (P.E). It should be calculated by using following formula.

P.E = $$\frac{0.6745\, x\left(1-r^2\right)}{\sqrt{N}}$$

Where, r = correlation coefficient

N = number of pairs of observation

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

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

CHAPTER – IV
DATA PRESENTATION AND ANALYSIS

In this chapter the effort has been made to analyze impact of capital structure on risk and return of commercial banks. This chapter, first proceeds with financial analysis by tabulation and then, at last, with statistical analysis. The financial analysis is done through presentation of data and calculating various financial rations, which reflects the relationship between the variables affecting capital structure. Variables used for analysis are long term debt, total debt, Equity capital, EBIT, Interest, Total Assets and Dividend payout ratio.

The firm should maintain a sound capital structure to run its business operation in this competitive world. Both excessive as well as inadequate capital positions are dangerous from the firm's point of view. So, an enlightened management should, therefore, maintain right capital structure to meet its objectives. Based on the above mentioned variables, following ratios are computed for the purpose of this study.

4.1 Capital Structure Analysis

The analysis of Capital Structure is concept of vital importance for this study. When debt and equity are properly mixed, it minimizes the cost of capital and maximizes the value of the firm. In order to analysis the value of the banks, fixed deposits and equity share capitals are taken into consideration. Net income approach is considered to find out the overall capitalization rate of the banks. In order to analyze the capital structure management of the banks the value of the firm is calculated as below,

The value of firms is determined by adding debt & equity i.e.
Value of Firm = Total Debt + Total Equity

The following table is used to show the value of firm of the banks for the five year from 2006/07 to 2010/11.

Table No: 4.1

Capital Structure Analysis

Fiscal Year	NABIL	HBL	NSBIL	EBL
2006/07	27253.39	33519.14	13901.20	21432.57
2007/08	37132.75	36175.53	17187.45	27149.34
2008/09	43867.39	39320.32	30166.44	36916.85
2009/10	52150.23	42717.12	38047.70	41382.76
2010/11	58141.44	46736.20	46088.23	46236.21
Total	**218545.20**	**198468.31**	**145391.02**	**173117.73**
Mean	**43709.04**	**39693.66**	**29078.20**	**34623.55**
Standard Deviation	**12182.05**	**5229.24**	**13626.34**	**10193.94**
Coefficient of Variation	**27.87%**	**13.17%**	**46.86%**	**29.44%**

Source: Appendix I

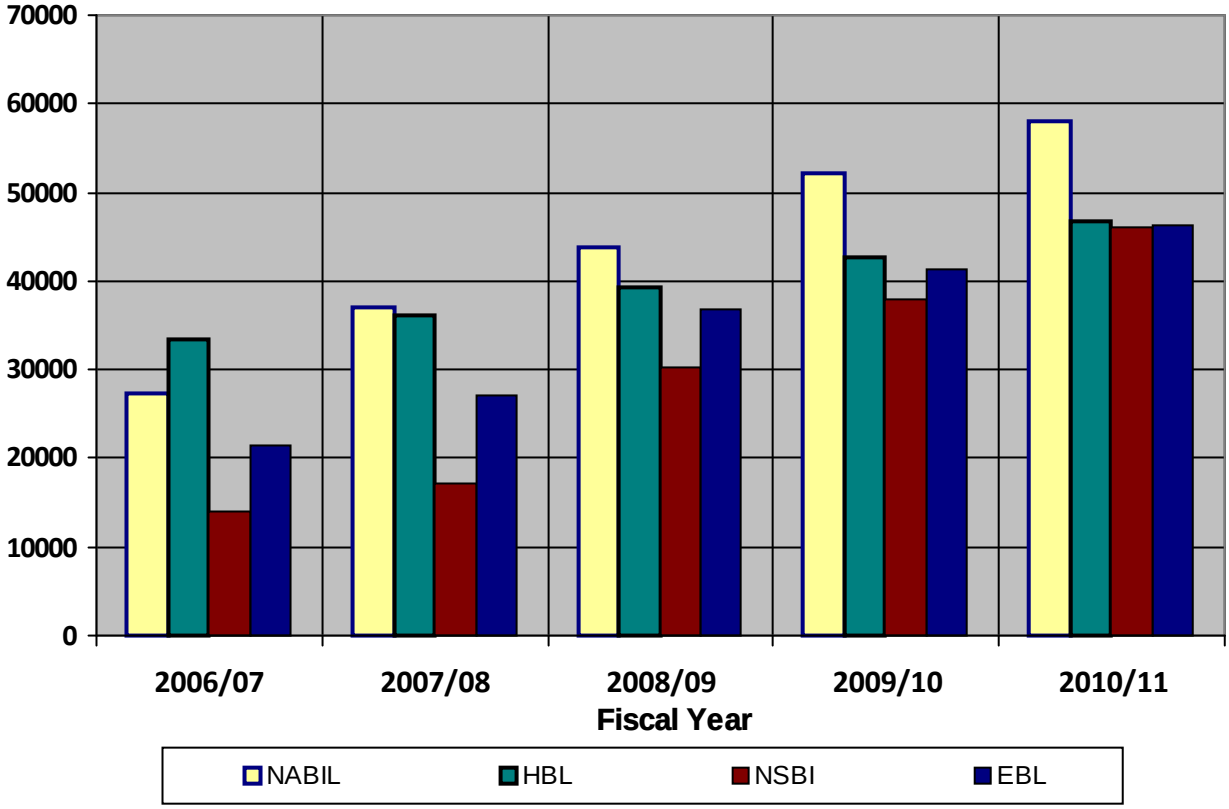
The above table no 4.1 shows value of the firm for NABIL bank, HBL bank, NSIBL bank and EBL bank for the study period. In 2006/07 value of the firm of NABIL bank was 27253.39 million and it was reached to 58141.44 million in 2010/11. For the HBL bank, value of firm of was 33519.14 million and it was reached to 46736.20 in 2010/11. For NBSIL bank, value of the firm was only 13901.20 but it was growth to 46088.23 million in 2010/11 and finally for the EBL bank, the bank has 21432.57 million of total value and reached to46236.21 million in 2010/11.

In average, there were 43709.04, 39693.66, 29078.20 and 34623.55 million of value of firm for NABIL bank, HBL bank, NSBIL bank and EBL bank respectively. And the coefficients of variation were 27.87%, 13.17%, 46.86% and 29.44% in the value of firm during the study period for NABIL bank, HBL bank, NSBIL bank and EBL bank respectively.

The above table can be shown in the following figure for the five year from 2006/07 to 2010/11.

Figure No: 4.1

Capital Structure Analysis



The above figure no 4.1 shows the value of the firm for NABIL bank, HBL bank, NSIBL bank and EBL bank for the study period from 2006/07 to 2010/11. It is clearly shown that all the banks are continuously increasing their value from the beginning year of study period 2006/07 to the end of the study year 2010/11. The HBL bank is very consistency in term of value of firm than that of others banks because it has lower the coefficient of variation.

4.1.1 Comparative analysis under Net Income Approach

The overall capitalization rate is calculated under Net Income approach, which measures the degree of leverage of the firm. This approach assumes that the cost of debt is cost of equity. So, if the degree of financial leverage is increased the weighted average cost of capital will decline, as a result value of the firm will increase. The higher use of cheaper debt lowers the cost and consequently increases the value.

Overall capitalization rate are calculated under Net Income Approach as following.

$$\text{Ko (NI)} = \frac{\text{EBIT}}{\text{Value of Firm}}$$

The comparative overall capitalization rate of the banks can be shown as following table for the five years from 2006/07 to 2010/11and the details of calculation are in appendix II.

Table No: 4.1.1

Comparative analysis under Net Income Approach

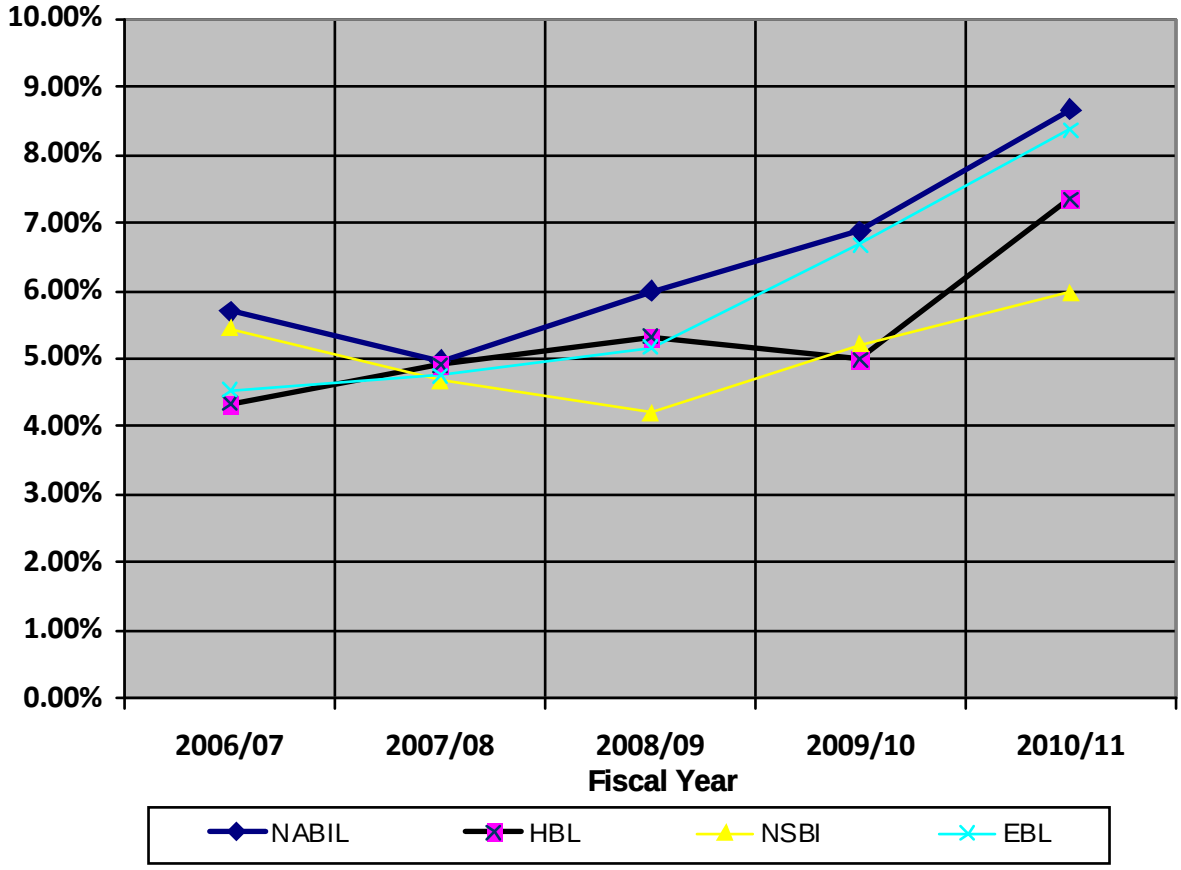
Fiscal Year	NABIL	HBL	NSBIL	EBL
2006/07	5.69%	4.34%	5.44%	4.54%
2007/08	4.98%	4.92%	4.67%	4.76%
2008/09	6.00%	5.33%	4.20%	5.16%
2009/10	6.87%	4.99%	5.21%	6.67%
2010/11	8.67%	7.34%	5.97%	8.36%
Total	**32.21%**	**26.92%**	**25.49%**	**29.48%**
Mean	**6.44%**	**5.38%**	**5.10%**	**5.90%**
Standard Deviation	**1.42%**	**1.15%**	**0.68%**	**1.61%**
Coefficient of Variation	**22.03%**	**21.33%**	**13.41%**	**27.33%**

Source: Appendix II

The above table no 4.1.1 shows the overall capitalization rate for NABIL bank, HBL bank, NSIBL bank and EBL bank for the study period from 2006/07 to 2010/11. The NABIL bank has 6.44% of average overall capitalization rate with standard deviation of 1.42% and 22.03% of CV. For the HBL bank, it has 5.38% of average overall capitalization rate with standard deviation of 1.15% and 22.33% of CV. For the NSBIL bank, it has 5.10% of average overall capitalization rate with standard deviation of 0.68% and 13.41% of CV. Finally, The EBL bank has 5.90% of average overall capitalization rate with standard deviation of 1.61% and 27.33% of CV.

Figure No: 4.1.1

Comparative analysis under Net Income Approach



The above figure no 4.1.1 shows the overall capitalization rate for NABIL bank, HBL bank, NSIBL bank and EBL bank for the study period. For NABIL bank, it has5.69%, 4.98%, 6.00%, 6.87% and 8.67% of overall cost of capital for 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 respectively. For the HBL bank, the weighted capitalization rate were 4.34%, 4.92%, 5.33%, 4.99% and 7.34% for 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 respectively. For the NSBIL bank, it was 5.44% in 2006/07 and it was reached to 5.97% in 2010/11. Finally, The EBL bank has 4.54%, 4.76%, 5.16%, 6.67% and 8.36% of cost of capital for 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 respectively.

From the comparative analysis, all the banks have fluctuating trend of their overall capitalization rate for year to year. But it is nearly set to the 5.50%. The NABIL bank has greater capitalization rate than that of others bank and NSBI bank has lowest rate of

capitalization. The HBL bank is very consistency in term of value of firm than that of others banks because it has lower the coefficient of variation.

4.1.2 Comparative analysis under Net Operating Income

The net operating income approach focus on the equity capitalization rate and appears as irrelevancy theory of capital structure. According to this, Overall capitalization rate, Ko and the debt capitalization rate K_d are independent. However the equity capitalization rate, k_e increase linearly with the financial leverage. Equity capitalization rate is obtained simply dividing the earning before tax by market value of firm. Market value of firm can be obtained by multiplying numbers of share and market price of shares.

Thus, under Net Operating Income approach the equity capitalization is calculated as follows:

$$\text{Ke (NOI)} = \frac{\text{EBT}}{\text{Market Value of Firm}}$$

The comparative equity capitalization rate of the banks can be shown as following table for the five years from 2006/07 to 2010/11and the details of calculation are in appendix III.

Table No: 4.1.2

Comparative analysis under Net Operating Income

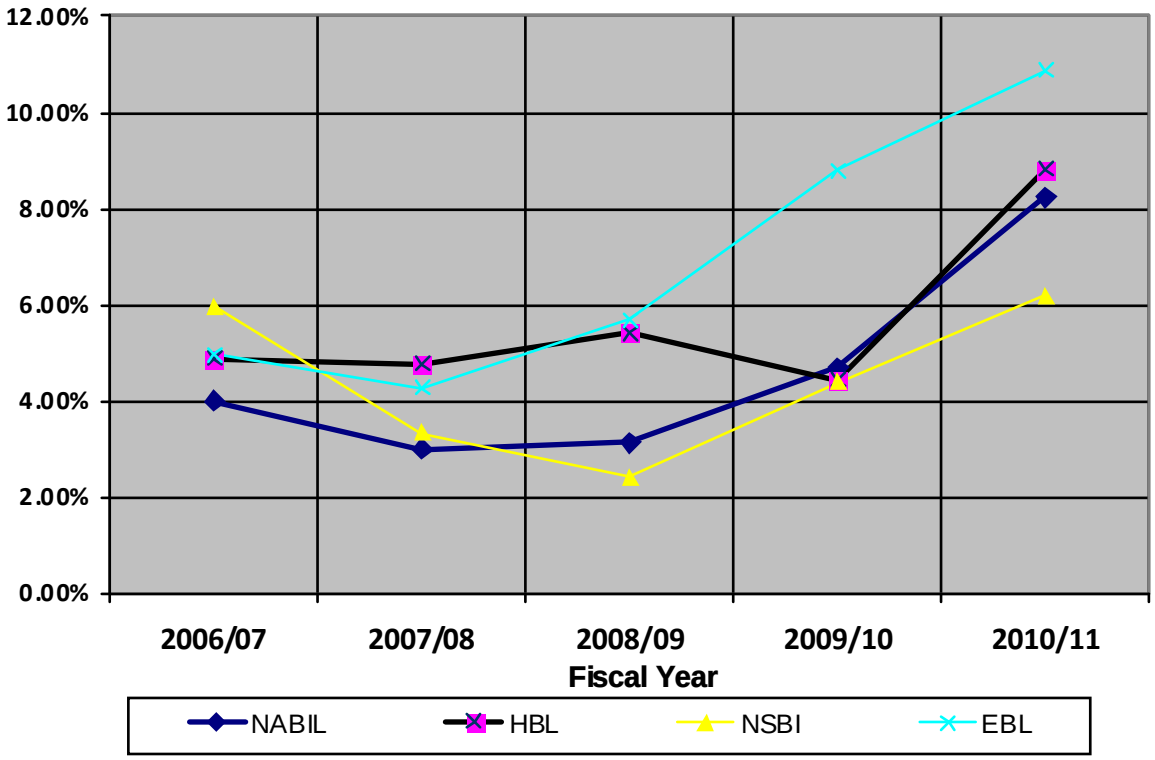
Fiscal Year	NABIL	HBL	NSBIL	EBL
2006/07	4.01%	4.88%	5.96%	4.95%
2007/08	3.00%	4.76%	3.34%	4.28%
2008/09	3.13%	5.42%	2.41%	5.68%
2009/10	4.70%	4.44%	4.39%	8.78%
2010/11	8.24%	8.83%	6.19%	10.87%
Total	**23.07%**	**28.32%**	**22.30%**	**34.56%**
Mean	**4.61%**	**5.66%**	**4.46%**	**6.91%**
Standard Deviation	**2.14%**	**1.80%**	**1.63%**	**2.80%**
Coefficient of Variation	**46.39%**	**31.84%**	**36.63%**	**40.54%**

Source: Appendix III

The above table no 4.1.2 shows the equity capitalization rate for NABIL bank, HBL bank, NSBIL bank and EBL bank for the study period from 2006/07 to 2010/11. The NABIL bank has 4.61% of average equity capitalization rate with standard deviation of 2.14% and 46.39% of CV. For the HBL bank, it has 5.66% of average equity capitalization rate with standard deviation of 1.8% and 31.84% of CV. For the NSBIL bank, it has 4.46% of average equity capitalization rate with standard deviation of 1.63% and 36.63% of CV. Finally, The EBL bank has 6.91% of average equity capitalization rate with standard deviation of 2.80% and 40.54% of CV.

Figure No: 4.1.2

Comparative analysis under Net Operating Income



The above figure no 4.1.2 shows the equity capitalization rate for NABIL bank, HBL bank, NSBIL bank and EBL bank for the study period. For NABIL bank, it has 4.01%, 3.00%, 3.13%, 4.70% and 8.24% of equity capitalization rate for 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 respectively. For the HBL bank, the equity capitalization rate were 4.88%, 4.76%, 5.42%, 4.44% and 8.83% for 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 respectively. For the NSBIL bank, it was 5.96%, 3.34%, 2.41%, 4.39% and 6.19% for 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 respectively.

Finally, The EBL bank has 4.95%, 4.28%, 5.68%,8.78%and 10.87% of cost of equity capital for 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 respectively.

From the comparative analysis, all the banks have fluctuating trend of their equity capitalization rate for year to year. As per mean value of equity capitalization rate it is nearly about to the 5%. The EBL bank has greater equity capitalization rate than that of others bank and NSBI bank has lowest rate of equity capitalization.

4.2 Components Cost of Capital

The cost of capital is an important element as basic information in capital investment decisions. It is necessary to analyze the cost of specific sources in order to show the basic inputs for determining the overall cost of capital. "The computed value for the cost of capital can be regarded as a fair approximation of the cost of capital inputs consistent with company needs, the conditions under which it is raising its capital, the level of expectations and corporate policy constraints.

As we have already defined that capital structure consists three components. So cost of these three components (long-term debt, preferred stock and common equity) should be considered while calculating the cost of capital.

4.2.1 Comparative Analysis of Cost of Equity

The equity shares must involve a return in terms of dividend expected by the shareholders. The cost of equity capital is defined as the minimum return that a firm must earn on the equity financed portion of its investment in order to leave unchanged the market price of its stock. The cost of equity capital is the rate of discount that equates the present value of all future expected dividends per share to the present price of common stock. It is the return required by the investors. Equity capital is the combination of common stock (external equity) and retained earnings (internal equity). Cost of new common shares is the minimum rate of return, which is required on the new investment, financed by the new issue of common shares, to keep the market value of the share unchanged. Cost of retained earnings is the opportunity cost to the shareholders because when the firm decides to retain the current earnings in the firm, then shareholders give up their cash dividends.

The comparative cost of equity of the banks can be shown as following table for the five years from 2006/07 to 2010/11and the details of calculation are in appendix IV.

Table No: 4.2.1

Comparative Analysis of Cost of Equity

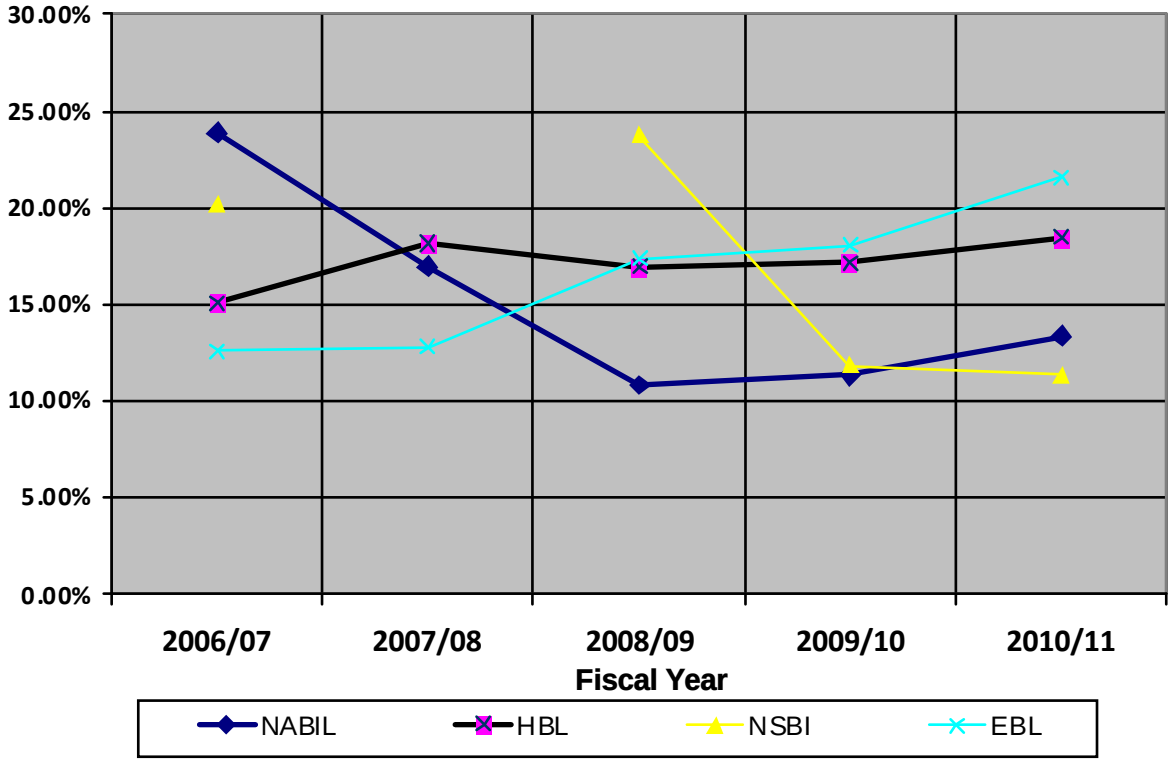
Fiscal Year	NABIL	HBL	NSBIL	EBL
2006/07	23.90%	15.11%	20.11%	12.58%
2007/08	16.97%	18.16%	-	12.79%
2008/09	10.83%	16.98%	23.74%	17.40%
2009/10	11.34%	17.14%	11.81%	18.06%
2010/11	13.33%	18.44%	11.36%	21.58%
Total	**76.37%**	**85.83%**	**67.03%**	**82.41%**
Mean	**15.27%**	**17.17%**	**16.76%**	**16.48%**
Standard Deviation	**5.39%**	**1.31%**	**6.16%**	**3.81%**
Coefficient of Variation	**35.31%**	**7.63%**	**36.74%**	**23.13%**

Source: Appendix IV

The above table no 4.2.1 shows the cost of equity for NABIL bank, HBL bank, NSBIL bank and EBL bank for the study period from 2006/07 to 2010/11. The NABIL bank has 15.27% of average cost of equity with standard deviation of 5.39% and 35.31% of CV. For the HBL bank, it has 17.17% of average cost of equity with standard deviation of 1.31% and 7.63% of CV. For the NSBIL bank, it has 16.76% of average cost of equity with standard deviation of 6.16% and 36.74% of CV. Finally, The EBL bank has 16.48% of average cost of equity with standard deviation of 3.81% and 23.13% of CV.

Figure No: 4.2.1

Comparative Analysis of Cost of Equity



The above figure no 4.2.1 shows the cost of equity for NABIL bank, HBL bank, NSBIL bank and EBL bank for the study period. For NABIL bank, it has 23.90% in 2006/07 and then down to 13.33% at the end of 2010/11. For the HBL bank, cost of equity was 15.11% in 2006/07 and then risen to 18.44% in 2010/11. For the NSBIL bank, it was 20.11%, in 2006/07 decreased to 11.36% in 2010/11. Finally, the EBL bank has 12.58% in 2006/07and raised to 21.58% in 2010/11.

From the comparative analysis of cost of equity, all the banks have fluctuating trend of their cost of equity for year to year. As per mean value of cost of equity it is nearly about to the 15% to 17%. The NABIL bank has greater variability in cost of equity than that of others bank due to higher CV and NSBI bank has less variability due to lowest cost of equity.

4.2.2 Comparative Analysis of Cost of Debt after tax

A debt is a long-term obligation and simultaneously a promise to pay the face amount or principal at a designated date of maturity and to pay interest at a specified rate periodically. Component cost of debt is calculated by dividing the amount of interest by the total amount of loan provided or it is the ratio of interest and principle.

The comparative cost of debt after tax of the banks can be shown as following table for the five years from 2006/07 to 2010/11and the details of calculation are in appendix V.

Table No: 4.2.2

Comparative Analysis of Cost of Debt after tax

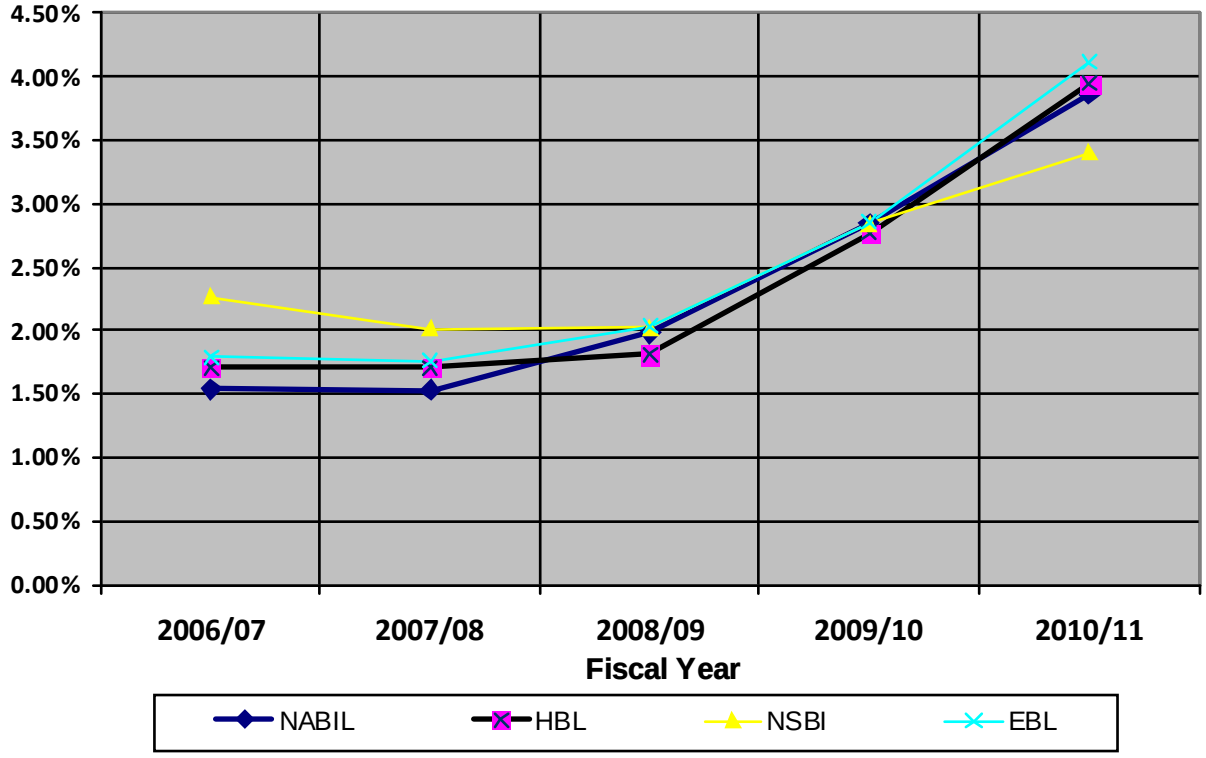
Fiscal Year	NABIL	HBL	NSBIL	EBL
2006/07	1.54%	1.71%	2.27%	1.79%
2007/08	1.53%	1.71%	2.02%	1.76%
2008/09	1.98%	1.81%	2.03%	2.04%
2009/10	2.84%	2.77%	2.84%	2.85%
2010/11	3.86%	3.95%	3.40%	4.12%
Total	**11.76%**	**11.96%**	**12.55%**	**12.55%**
Mean	**2.35%**	**2.39%**	**2.51%**	**2.51%**
Standard Deviation	**1.00%**	**0.98%**	**0.60%**	**1.00%**
Coefficient of Variation	**42.43%**	**41.02%**	**23.78%**	**39.84%**

Source: Appendix V

The above table no 4.2.2 shows the cost of debt after tax for NABIL bank, HBL bank, NSBIL bank and EBL bank for the study period from 2006/07 to 2010/11. The NABIL bank has 1.54% of average cost of debt after tax with standard deviation of 1.00% and 42.43% of CV. For the HBL bank, it has 2.39% of average cost of debt after tax with standard deviation of 0.98% and 41.02% of CV. For the NSBIL bank, it has 2.51% of average cost of debt after tax with standard deviation of 0.60% and 23.78% of CV. Finally, The EBL bank has 2.51% of average cost of debt after tax with standard deviation of 1.00% and 39.84% of CV.

Figure No: 4.2.2

Comparative Analysis of Cost of Debt after tax



The above figure no 4.2.2 shows the cost of debt after tax for NABIL bank, HBL bank, NSBIL bank and EBL bank for the study period. For NABIL bank, it has 1.54% in 2006/07 and then rose to 3.86% at the end of 2010/11. For the HBL bank, cost of debt after tax was 1.71% in 2006/07 and then risen to 3.95% in 2010/11. For the NSBIL bank, it was 2.27%, in 2006/07 rose to 3.40% in 2010/11. Finally, the EBL bank has 1.79% in 2006/07and raised to 4.12% in 2010/11.

From the comparative analysis of cost of debt after tax, all the banks have fluctuating trend of their cost of debt after tax for year to year. As per mean value of cost of debt after tax, it is nearly about to the 2.50%. The NABIL bank has lowest cost of debt after tax NSBI and EBL bank have higher cost of debt after tax.

4.2.3 Comparative Analysis of Overall Cost of Capital

Every organization usages different sources to raise the fund. Total funds of banks and financial institutions can be broadly classified as debt and equity portion. Banks and financial institutes usages large potion of debt in their total fund because it is the cheapest source to them. Banks collect large amount of deposit from public and pays certain

amount of interest to depositor so in comparison to trading or manufacturing industries cost of debt is very low in banks and financial institutes.

The comparative overall cost of capital of the banks can be shown as following table for the five years from 2006/07 to 2010/11and the details of calculation are in appendix VI.

Table No: 4.2.3

Comparative Analysis of Overall Cost of Capital

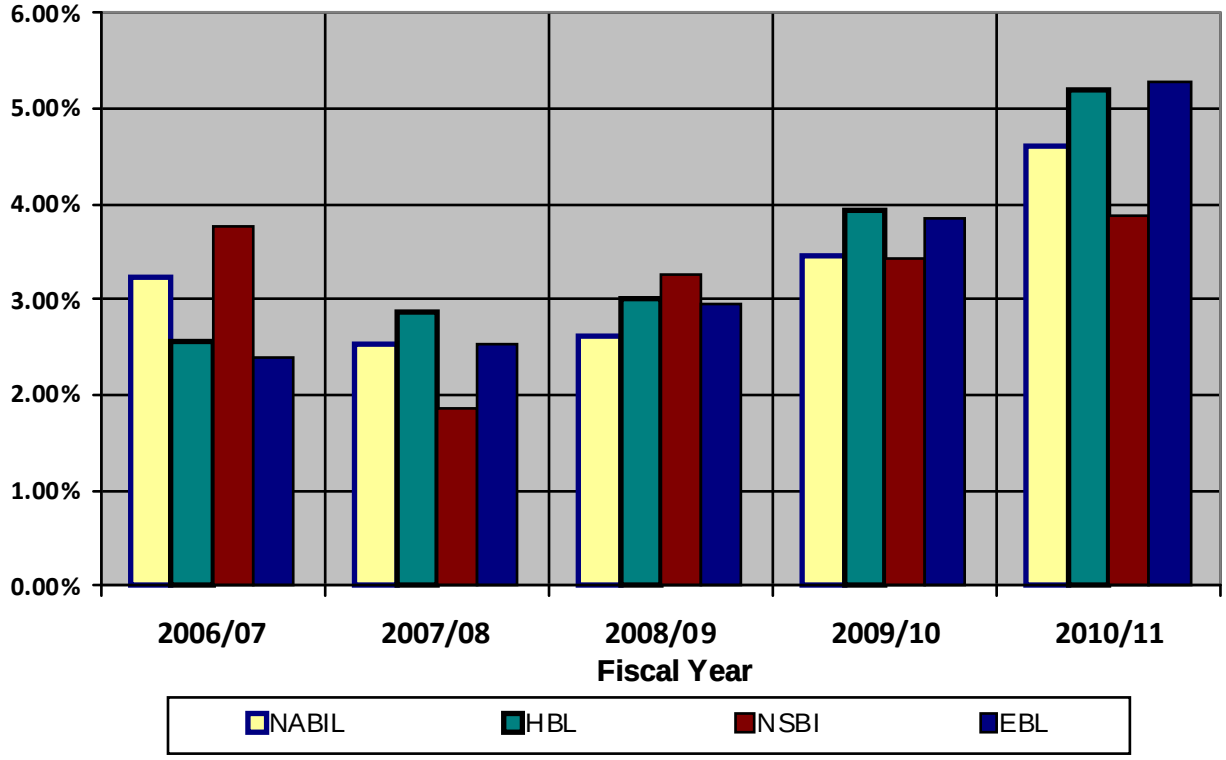
Fiscal Year	NABIL	HBL	NSBIL	EBL
2006/07	3.23%	2.57%	3.76%	2.39%
2007/08	2.54%	2.86%	1.85%	2.54%
2008/09	2.61%	3.01%	3.26%	2.96%
2009/10	3.46%	3.93%	3.42%	3.86%
2010/11	4.61%	5.19%	3.89%	5.29%
Total	**16.46%**	**17.56%**	**16.18%**	**17.05%**
Mean	**3.29%**	**3.51%**	**3.24%**	**3.41%**
Standard Deviation	**0.83%**	**1.07%**	**0.81%**	**1.20%**
Coefficient of Variation	**25.33%**	**30.43%**	**25.16%**	**35.16%**

Source: Appendix V I

The above table no 4.2.3 shows the cost of weighted average cost of capital (Ko) for NABIL bank, HBL bank, NSBIL bank and EBL bank for the study period from 2006/07 to 2010/11. The NABIL bank has 3.29% of average Ko with standard deviation of 0.83% and 25.33% of CV. For the HBL bank, it has 3.51% of Ko with standard deviation of 1.07% and 30.43% of CV. For the NSBIL bank, it has 3.24% of Ko with standard deviation of 0.81% and 25.16% of CV. Finally, The EBL bank has 3.41% of average cost of capital with standard deviation of 1.20% and 35.16% of CV.

Figure No: 4.2.3

Comparative Analysis of Overall Cost of Capital



The above figure no 4.2.3 shows the overall cost of capital (Ko) for NABIL bank, HBL bank, NSBIL bank and EBL bank for the study period. For NABIL bank, it has 3.23% in 2006/07 and then rose to 4.61% at the end of 2010/11. For the HBL bank, Ko was 2.57% in 2006/07 and then risen to 5.19% in 2010/11. For the NSBIL bank, it was 3.76%, in 2006/07 rose to 3.89% in 2010/11. Finally, the EBL bank has 2.39% in 2006/07and raised to 5.29% in 2010/11.

From the comparative analysis of overall cost of capital (Ko), all the banks have the higher cost on their capital at the end. As per mean value of Ko, it is nearly about to the 3.50%. The NABIL bank has lowest overall cost of capital and HBL bank has higher cost of capital.

4.3 Leverage Ratio Analysis

Leverage refers to the use of assets or sources of funds, which involve fixed cost or returns. As a result, the return to the owners is affected and also their risk. The leverage ratio measure the relationship between the debt financing with other various factors like on the basis of shareholder's equity, total assets and capital employed and operating profit etc.

Debt to equity, total debt to total assets and interest coverage ratio are calculated under leverage ratio analysis as following

4.3.1 Comparative Analysis of Debt to Equity Ratio

The debt to equity ratio shows the relationship between total debt and shareholder's equity. It is the relationship between fund and owners capital. A high debt to equity ratio implies that a proportion of long -term financing is from debt sources that the firm is using a great deal of financial leverage. Shareholders equity includes share capital, general reserve and surplus.

The following table shows the comparative Debt to Equity ratio of the selected banks in the five year 2006/07–2010/11 and the details of calculation are in appendix VII.

Table No: 4.3.1

Comparative Analysis of Debt to Equity Ratio

Fiscal Year	NABIL	HBL	NSBIL	EBL
2006/07	12.25	14.62	10.95	16.84
2007/08	14.24	13.40	11.15	13.13
2008/09	13.01	11.60	16.61	15.76
2009/10	12.60	11.42	14.53	14.00
2010/11	11.73	10.70	15.01	13.85
Total	**63.83**	**61.73**	**68.25**	**73.57**
Mean	**12.77**	**12.35**	**13.65**	**14.71**
Standard Deviation	**0.95**	**1.61**	**2.50**	**1.53**
Coefficient of Variation	**7.42%**	**13.05%**	**18.29%**	**10.40%**

Source: Appendix VII

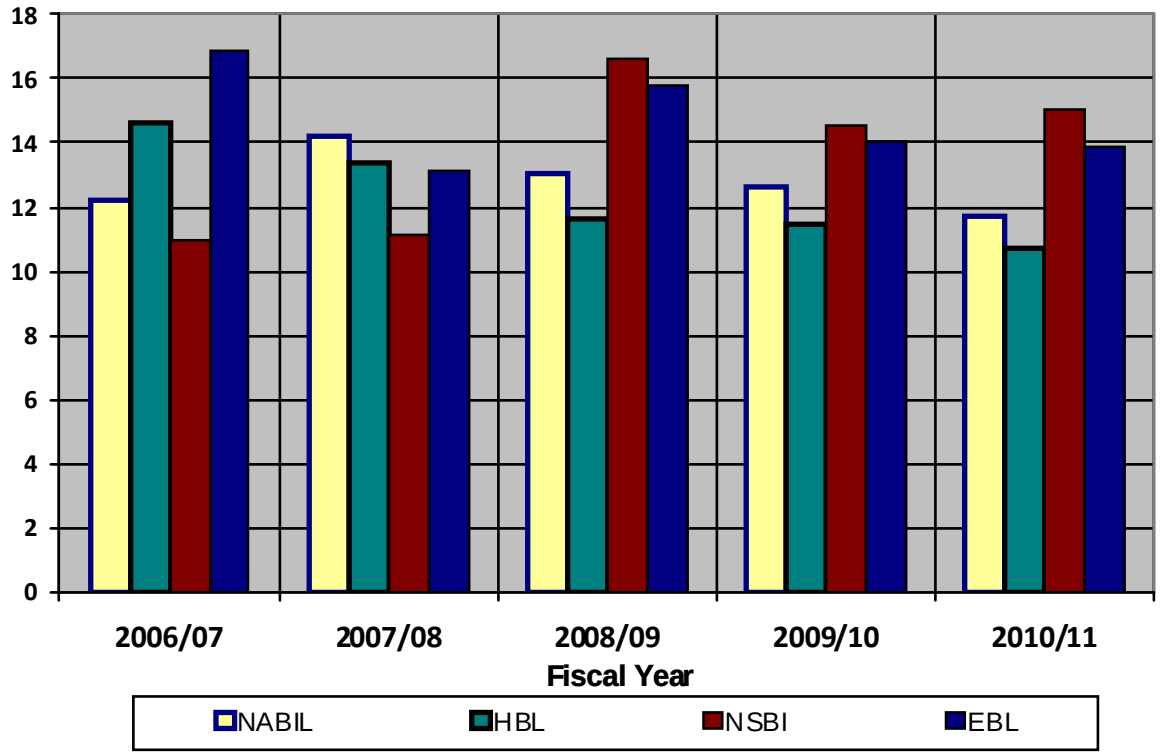
The above table no 4.3.1 shows Debt to Equity ratio for NABIL bank, HBL bank, NSBIL bank and EBL bank for the study period. From the analysis, NABIL bank has the average of 12.77 times of debt over the total equity for the study period with the standard deviation of 0.95 times as a result 7.42% of coefficient of variation. For HBL bank, the average debt to equity ratio was 12.35 times of debt over the total equity for the study period with the standard deviation of 1.61times as a result 13.05% of coefficient of variation. For NSBIL bank, the average debt to equity ratio was 13.65 times of debt over the total equity for the

study period with the standard deviation of 2.50 times as a result 18.29% of coefficient of variation. Finally, the EBL bank has 14.71 times, 1.53 time and 10.40% of Debt to equity ratio in Average, standard deviation and coefficient of variation respectively.

The above table can be shown in the following figure for the five year from 2006/07 to 2010/11.

Figure No: 4.3.1

Comparative Analysis of Debt to Equity Ratio



From the above figure no 4.3.1, it shows Debt to Equity ratio for NABIL bank, HBL bank, NSBIL bank and EBL bank for the study period. For NABIL bank, it has12.25, 14.24, 13.01, 12.60 and 11.73 times of debt of total equity for 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 respectively. For the HBL bank, the ratios are 14.62, 13.40, 11.60, 11.42 and 10.70 times of debt equity ratio for 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 respectively. For the NSBIL bank, the ratios are10.95, 11.15, 16.61, 14.53 and 15.01 for 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 respectively. Finally, the EBL bank has 16.84, 13.13, 15.76, 14.00 and 13.85 of debt ratio for 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 respectively.

From the comparative analysis, The Everest bank has contributed highly by the debt in comparison to the equity over the period because it has higher debt ratio that that of others banks. But NABIL bank is performing the best in the ratio due to the lower coefficient of variation of the debt to equity ratio.

4.3.2 Comparative Analysis of Total Debt to Total Assets Ratio

Total debt to total assets is the ratio between total debt and total assets. It is calculated by dividing total debt by total assets. It measures the percentage of the firm's assets financed by creditors. The funded debt comprises of interest bearing debt like borrowings, bills payables and other liabilities. Similarly, the total assets consist of fixed assets and current assets.

The following table and figure shows the position of Total debt to total assets ratio in the banks over the past five-year.

Table No: 4.3.2

Comparative Analysis of Total Debt to Total Assets Ratio (TD/TA Ratio)

`Fiscal Year	NABIL	HBL	NSBIL	EBL
2006/07	92.45%	93.60%	91.63%	94.39%
2007/08	93.44%	93.05%	91.77%	92.92%
2008/09	92.86%	92.07%	94.32%	94.03%
2009/10	92.65%	91.95%	93.56%	93.33%
2010/11	92.15%	91.45%	93.75%	93.27%
Total	**463.55%**	**462.12%**	**465.04%**	**467.95%**
Mean	**92.71%**	**92.42%**	**93.01%**	**93.59%**
Standard Deviation	**0.48%**	**0.88%**	**1.23%**	**0.60%**
Coefficient of Variation	**0.52%**	**0.95%**	**1.32%**	**0.65%**

Source: Appendix VIII

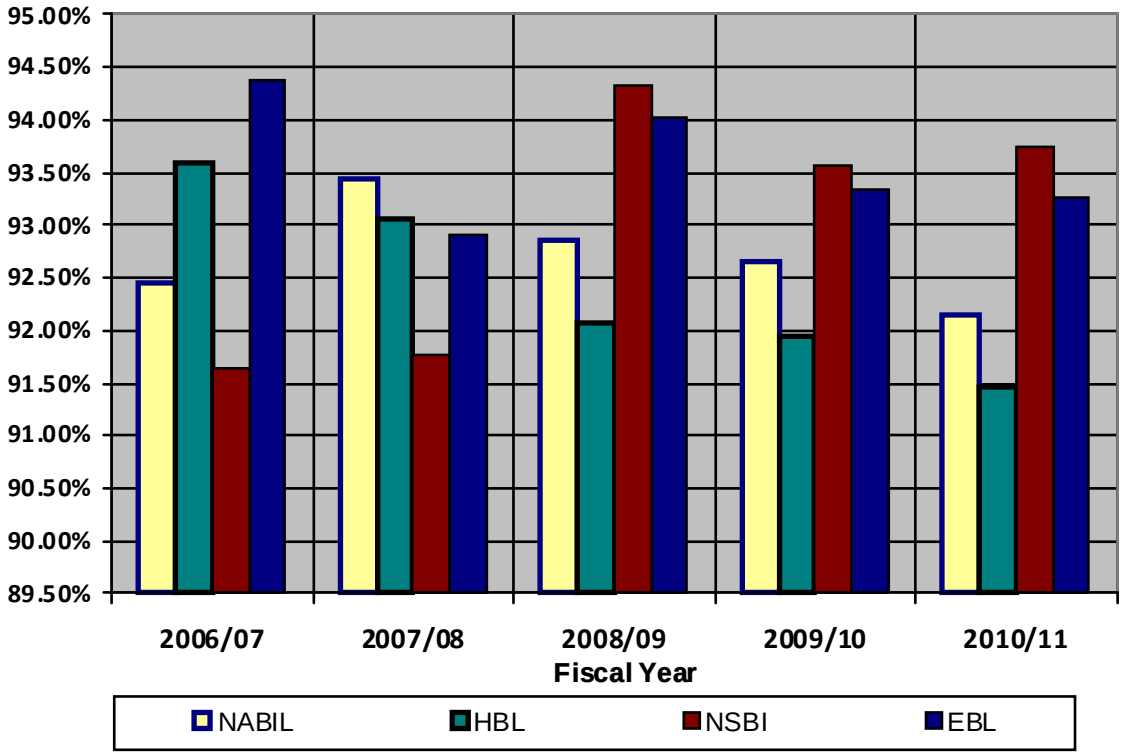
The above table no 4.3.2 shows total debt to total assets ratio for NABIL bank, HBL bank, NSBIL bank and EBL bank from 2006/07 to 2010/11. From the above comparative analysis, NABIL bank has 92.70% of average and 0.48% of standard deviation as a result the CV of 0.52% of total debt to total assets over the study period. For HBL bank, the average total debt to total ratio was 92.42% and standard deviation was 0.88% CV was 0.95%.For NSBIL bank, the average total debt ratio was 93.01%, standard deviation

equals to 1.23% and CV 1.32% and lastly, the EBL bank has average debt ratio of 93.59%, 0.60% of standard deviation and 0.65% of coefficient of variation in total debt to total assets ratio.

The above table can be shown in the following figure for the five year from 2006/07 to 2010/11.

Figure No: 4.3.2

Comparative Analysis of Total Debt to Total Assets Ratio



From the above figure no 4.3.2, NABIL bank has92.45%, 93.44%, 92.86%, 92.65% and 92.15% of total debt of total assets for 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 respectively. For the HBL bank, the ratios are 93.60%, 93.05%, 92.07%, 91.95% and 91.45%of total debt to total ratio for 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 respectively. For the NSBIL bank, the ratios 91.63%, 91.77%, 94.32%, 93.56% and 93.75% for 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 respectively. Finally, the EBL bank has 94.39%, 92.92%, 94.03%, 93.33% and 93.27% of total debt ratio for 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 respectively.

From the above comparative analysis of the ratio, The Everest bank is regarded as highly levered firm because it has higher total debt ratio that that of others banks. In average the

bank has 93.59% of contribution in total assets but NABIL bank is performing the best in term of coefficient of variation of the debt to total assets ratio.

4.3.3 Comparative Analysis of Interest Coverage Ratio

The interest coverage ratio is also called interest earned ratio. It shows the firm's ability to pay interest out of earnings. It reflects the number of times the interest charges are covered by funds that are ordinarily available for their payment. It uses the concept of net profit before tax because tax is calculated after paying interest on loan. It examines the interest paying capacity of the firm by how many times the interest charges are covered by EBIT.

The following table and figure shows the position of interest coverage ratio in the banks over the past five-years (2006/07 - 2010/11)

Table No: 4.3.3

Comparative Analysis of Interest Coverage Ratio

Fiscal Year	NABIL	HBL	NSBIL	EBL
2006/07	2.79	1.90	1.84	1.88
2007/08	2.44	2.16	1.77	2.04
2008/09	2.28	2.24	1.54	1.88
2009/10	1.83	1.37	1.37	1.76
2010/11	1.71	1.42	1.31	1.52
Total	**11.04**	**9.09**	**7.82**	**9.08**
Mean	**2.21**	**1.82**	**1.56**	**1.82**
Standard Deviation	**0.45**	**0.41**	**0.23**	**0.19**
Coefficient of Variation	**20.16%**	**22.30%**	**14.82%**	**10.56%**

Source: Appendix IX

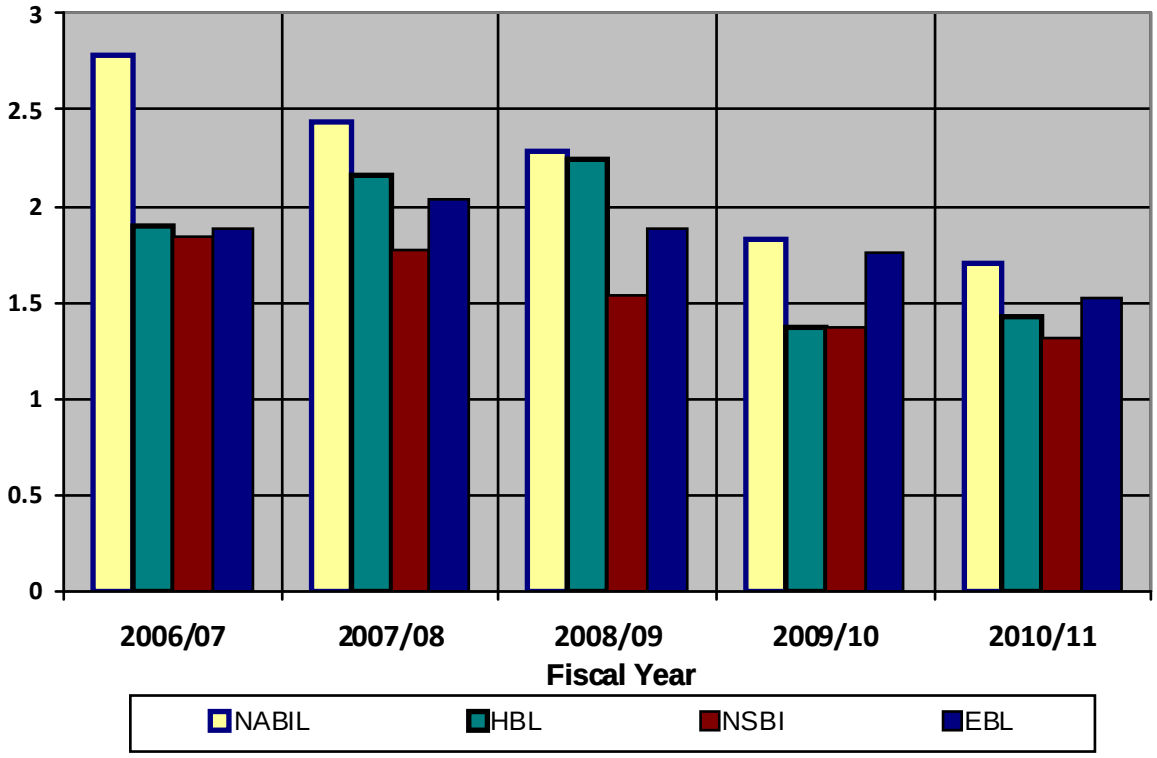
The above table no 4.3.3 shows the interest coverage ratio for NABIL bank, HBL bank, NSBIL bank and EBL bank from 2006/07 to 2010/11. From the above comparative analysis, NABIL bank has 2021 times of average and 0.45 times of standard deviation as a result the CV of 20.16% of interest coverage ratio for the study period. For HBL bank, the average times interest earned ratio was 1.82 and standard deviation was 0.41 and CV was 22.30%.For NSBIL bank, the average ratio was 1.56times, standard deviation equals to

0.23 times and CV of 14.82% and lastly, the EBL bank has average times of 1.82, 0.19 times of standard deviation and 1.56% of coefficient of variation in times interest earned ratio.

The above table of comparative interest coverage ration can be shown in the following figure for the five year from 2006/07 to 2010/11.

Figure No: 4.3.3

Comparative Analysis of Interest Coverage Ratio



From the above figure no 4.3.3, NABIL bank has2.79, 2.44, 2.28, 1.83 and 1.71 times of operating profit to pay the interest for 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 respectively. For the HBL bank, the interest coverage ratios are 1.90, 2.16, 2.24, 1.37 and 1.42 times for 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 respectively. For the NSBIL bank, the interest payment ratios are 1.84, 1.77, 1.54, 1.37 and 1.31 for 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 respectively. Finally, the EBL bank has 1.88, 2.04, 1.88, 1.76f and 1.52 times of interest coverage ratio for 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 respectively.

From the above comparative analysis, all the banks are capable to pay the interest on their total debt for entire fiscal year. Because all the banks have interest coverage ratio are higher than of 1. It means the banks are making more operating profit to pay the interest. The NSBI bank has lower average interest coverage ration and NABIL bank has greater interest coverage ratio which reflect the easily payment of the interest out of operating income. But EBL bank is has lower coefficient of variation of interest coverage ratio.

4.4 Profitability Ratio Analysis

Profitability ratio is relative measure to check the degree of efficiency of management of any organization. This measure helps the investor to calculate the amount of risk presents in the business, what amount of interest can be expected or generated from such organization. Measure, or forecast of profitability is again prepared by the help of current profit and one trend line is prepared and for the next year profit is forecasted. Return on asset (ROA) and return on shareholder's equity (ROE) are calculated under profitability ratio for the study.

4.4.1 Comparative Analysis of return on Total Asset

Return on total assets ratio establishes the relationship between net profit and total assets of the business firm. It 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 indicates efficiency in utilizing its overall resources and vice-versa.

The following table and figure shows the position of Return on total assets in the banks over the past five years (2006/07 - 2010/11).

Table No: 4.4.1

Comparative Analysis of return on Total Asset

Fiscal Year	NABIL	HBL	NSBIL	EBL
2006/07	2.47%	1.47%	1.83%	1.38%
2007/08	2.01%	1.76%	1.44%	1.66%
2008/09	2.35%	1.91%	1.05%	1.73%
2009/10	2.19%	1.19%	1.03%	2.01%
2010/11	2.30%	1.91%	1.01%	2.01%
Total	**11.32%**	**8.24%**	**6.36%**	**8.80%**
Mean	**2.26%**	**1.65%**	**1.27%**	**1.76%**
Standard Deviation	**0.18%**	**0.31%**	**0.36%**	**0.26%**
Coefficient of Variation	**7.74%**	**19.03%**	**28.41%**	**15.03%**

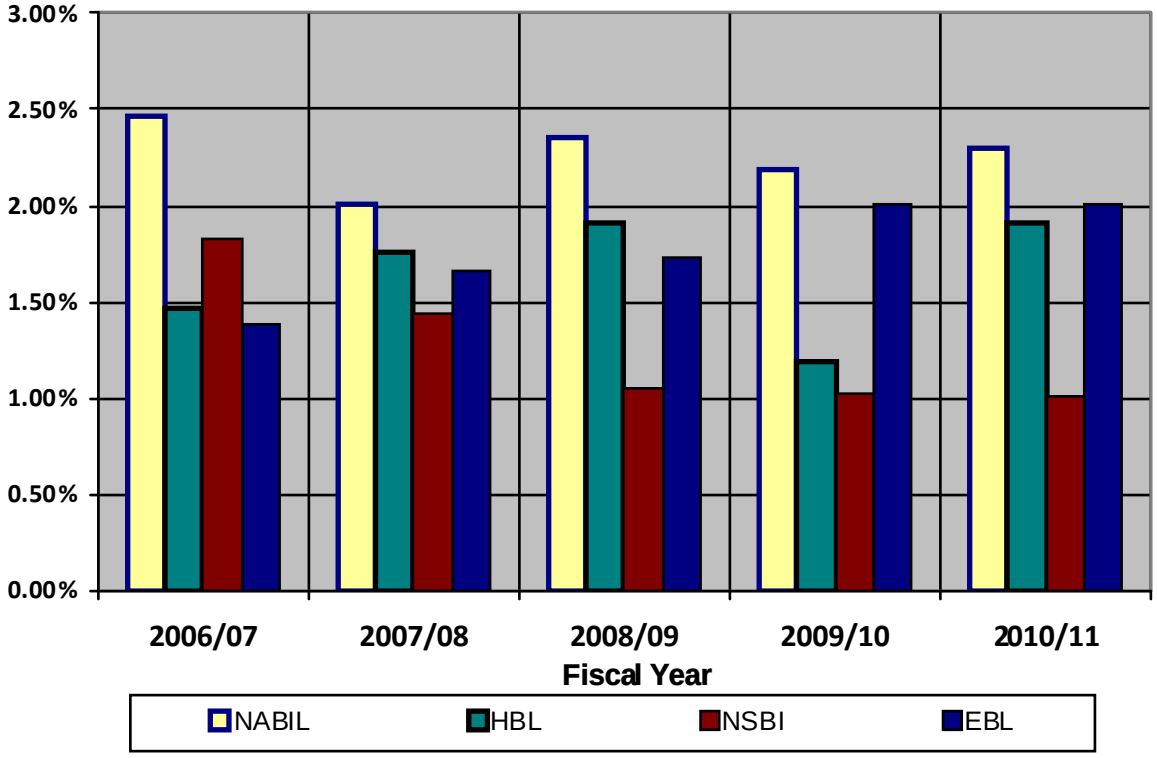
Source: Appendix X

The above table no 4.4.1 shows return on assets (ROA) ratio for NABIL bank, HBL bank, NSBIL bank and EBL bank from 2006/07 to 2010/11. From the above comparative analysis, NABIL bank has 2.26% of average ROA and 0.18% of standard deviation as a result the CV of 7.74% of return on assets over the study period. For HBL bank, the average ROA ratio was 1.65% and standard deviation was 0.31% CV was 19.03%.For NSBIL bank, the average ROA ratio was 1.27%, standard deviation equals to 0.36% and CV 28.41% and lastly, the EBL bank has average ROA ratio of 1.76% 0.26% of standard deviation and 15.03% of coefficient of variation in return on total assets ratio.

The above table can be shown in the following figure for the five year from 2006/07 to 2010/11.

Figure No: 4.4.1

Comparative Analysis of return on Total Asset



From the above figure no 4.4.1, NABIL bank has 2.47%, 2.01%, 2.35%, 2.19% and 2.30%of return on total assets for 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 respectively. For the HBL bank, the ROA ratios are 1.47%, 1.76%, 1.91%, 1.19% and 1.91% for 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 respectively. For the NSBIL bank, the ratios are 1.83%, 1.44%, 1.05%, 1.03% and 1.01%for 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 respectively whereas the EBL bank has 1.38%, 1.66%, 1.73%, 2.01%f and2.01% of return on total assets for 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 respectively.

From the above comparative analysis, The NABIL bank has got more return of 2.26% in average on total assets among the entire banks and NSBI bank has lower Return on assets ratio than that of other banks. But the NSBI bank is unstable in term of ROA ratio because of higher coefficient of variation where as the Everest bank has good trend of return on total assets because it has only 7.74% of CV.

4.4.2 Comparative Analysis of Return on Equity

Shareholders are actually the real 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 (ROE) is used. ROE established the relationship between net profit after tax and shareholders' equity/fund. It shows the rate of return on shareholders' funds. The high ROE represents the high profitability of the firm and vice-versa.

The following table and figure shows the position of return on shareholders' equity in the banks over past five year (2006/07 - 2010/11).

Table No: 4.4.2

Comparative Analysis of Analysis of Return on Equity

Fiscal Year	NABIL	HBL	NSBIL	EBL
2006/07	32.76%	22.92%	21.91%	24.67%
2007/08	30.63%	25.32%	17.51%	23.49%
2008/09	32.94%	24.13%	18.47%	28.99%
2009/10	29.76%	14.79%	15.99%	30.15%
2010/11	29.29%	22.36%	16.13%	29.91%
Total	**155.38%**	**109.51%**	**90.02%**	**137.21%**
Mean	**31.08%**	**21.90%**	**18.00%**	**27.44%**
Standard Deviation	**1.69%**	**4.13%**	**2.41%**	**3.13%**
Coefficient of Variation	**5.44%**	**18.88%**	**13.41%**	**11.40%**

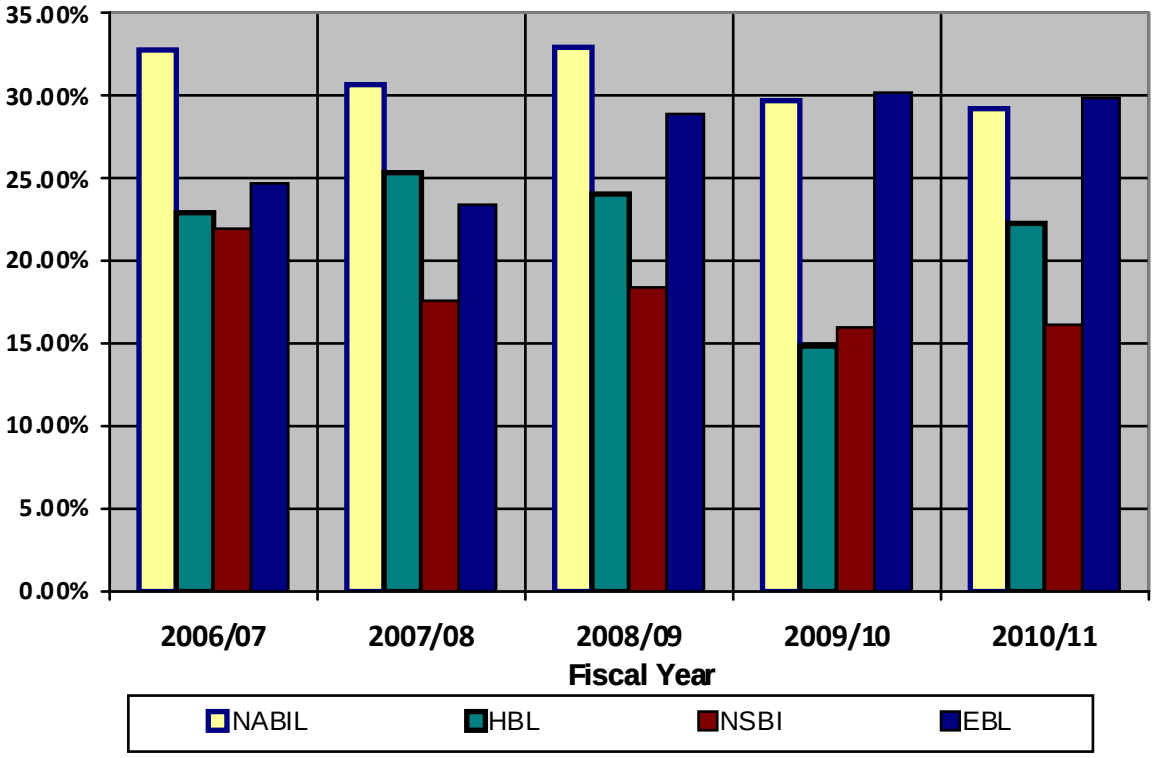
Source: Appendix XI

The above table no 4.4.2 shows return on shareholder's equity (ROE) ratio for NABIL bank, HBL bank, NSBIL bank and EBL bank from 2006/07 to 2010/11. From the above comparative analysis, NABIL bank has 31.08% of average ROE having 1.69% of standard deviation and 5.44% of CV over the study period. For HBL bank, the average ROE ratio was 21.90% having and standard deviation of 4.13% and18.88% of CV. For NSBIL bank, the average ROE ratio was 18.00% with standard deviation of 2.41% and CV of 13.41% and finally, the EBL bank has average ROE ratio of 27.44% with 3.13% of standard deviation and 11.40% of coefficient of variation in ROE ratio.

The above table can be shown in the following figure for the five year from 2006/07 to 2010/11.

Figure No: 4.4.2

Comparative Analysis of Return on Equity



From the above figure no 4.4.2, NABIL bank has 32.76%, 30.63%, 32.94%, 29.76%and 29.29%of return on shareholder's equity (ROE) for 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 respectively. For the HBL bank, the ROE ratios are 22.92%, 25.32%, 24.13%, 14.79%and 22.36% for 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 respectively. For the NSBIL bank, the ratios are 21.91%, 17.51%, 18.47%, 15.99% and16.13%for 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 respectively whereas the EBL bank has 24.67%, 23.49%, 28.99%, 30.15% and 29.91%of return on total equity for 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 respectively.

From the above comparative analysis, The NABIL bank has got more profit based on shareholder's equity. Because it has greater ROE ratio of 31.08% in average among the entire banks and its earning is also less variability in ROE ratio So, NABIL is performing very well in profitability. But NSBI bank has lower Return on equity than that of other banks and the HBL has more variability in term of return on equity based on coefficient of variation.

4.5 Market Related Ratio Analysis

In order to see market performance of the selected banks i.e NABIL bank, HBL bank, NSBIL bank and EBL bank, various market-related ratios are computed. Dividend payout ratio and price earning ratio are calculated under this ratio.

4.5.1 Comparative Analysis of Dividend Payout Ratio

Dividend payout ratio represents the percentage of the profit distributed as dividend and percentage retained as revenue and surplus for the growth of the bank. The shareholders prefer usually higher ratio whereas a very high ratio may slow down the growth rate of the firm. It helps to segregate the proportion of dividend and retained earnings. Importance of DPR shows its ability to state the dividend policy of the concerned banks more, obviously, which influences the market value of the share. The purpose of calculating this ratio is to know the portion of dividend distributed out of total earning. This ratio shows the relation between the returns belonging to equity shareholders and the dividend paid to them.

The following table that and figure shows the position of P/E ratio in the banks over past five years (2006/07–2010/11).

Table No: 4.5.1

Comparative Analysis of Dividend Payout Ratio

Fiscal Year	NABIL	HBL	NSBIL	EBL
2006/07	72.95%	65.94%	91.79%	51.01%
2007/08	55.40%	71.72%	-	54.45%
2008/09	74.93%	70.37%	128.54%	60.01%
2009/10	83.52%	115.85%	73.87%	59.90%
2010/11	42.45%	82.49%	70.42%	72.13%
Total	**329.25%**	**406.38%**	**364.61%**	**297.50%**
Mean	**65.85%**	**81.28%**	**91.15%**	**59.50%**
Standard Deviation	**16.60%**	**20.26%**	**26.63%**	**8.02%**
Coefficient of Variation	**25.21%**	**24.93%**	**29.21%**	**13.49%**

Source: Appendix XII

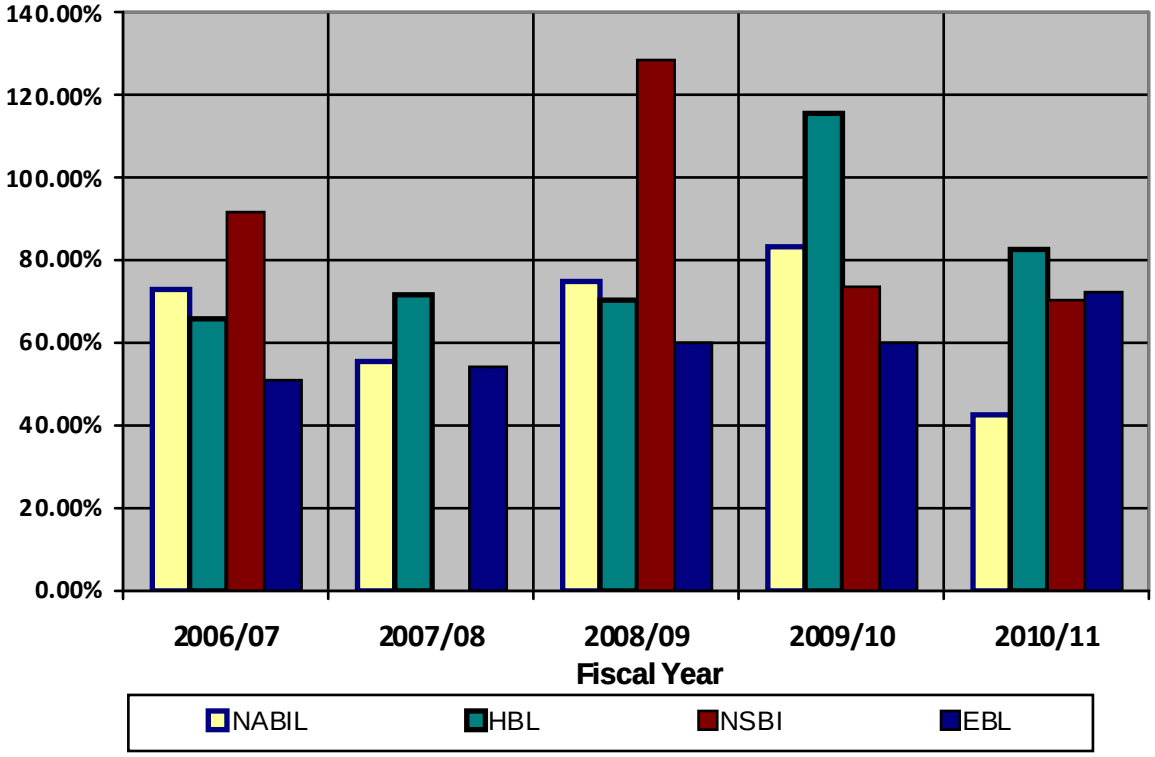
The above table no 4.5.1 shows dividend payout ratio (DPR) for NABIL bank, HBL bank, NSBIL bank and EBL bank from 2006/07 to 2010/11. The NABIL bank has 65.85% of

average DPR with standard deviation of 16.60% and 25.21% of CV. For the HBL bank, it has 81.28% of average DPR with standard deviation of 20.26% and 24.93% of CV. For the NSBIL bank, it has 91.15% of average DPR with standard deviation of 26.63% and 29.21% of CV. Finally, The EBL bank has 59.50% of DPR tax with standard deviation of 8.02% and 13.49% of CV.

The above table can be shown in the following figure for the five year from 2006/07 to 2010/11.

Figure No: 4.5.1

Comparative Analysis of Dividend Payout Ratio



From the comparative analysis of dividend payout ratio, all the banks have fluctuating trend of their payment to the shareholders which include stock dividend as well as cash dividend for year to year. NSBIL pay the higher than that of others and the EBL bank lower dividend payout ratio but least variability in dividend payment.

4.5.2 Comparative Analysis of Price Earning Ratio

Price earning ratio reflects the price currently being paid by the market for each rupees of currently reported EPS. In other words, it measures investor's expectation

and the market appraisal of the performance of the firm. It is an indication of the way investor's think that the bank would perform better in the future.

The following table that and figure shows the position of P/E ratio in the banks over past five years (2006/07–2010/11).

Table No: 4.5.2

Comparative Analysis of Price Earning Ratio

Fiscal Year	NABIL	HBL	NSBIL	EBL
2006/07	36.84	28.68	22.68	30.99
2007/08	48.70	31.56	42.03	34.11
2008/09	43.19	28.43	58.00	24.55
2009/10	28.45	25.66	31.28	16.27
2010/11	17.72	12.88	22.73	13.15
Total	**174.89**	**127.21**	**176.72**	**119.08**
Mean	**34.98**	**25.44**	**35.34**	**23.82**
Standard Deviation	**12.25**	**7.33**	**14.95**	**9.06**
Coefficient of Variation	**35.01%**	**28.81%**	**42.29%**	**38.05%**

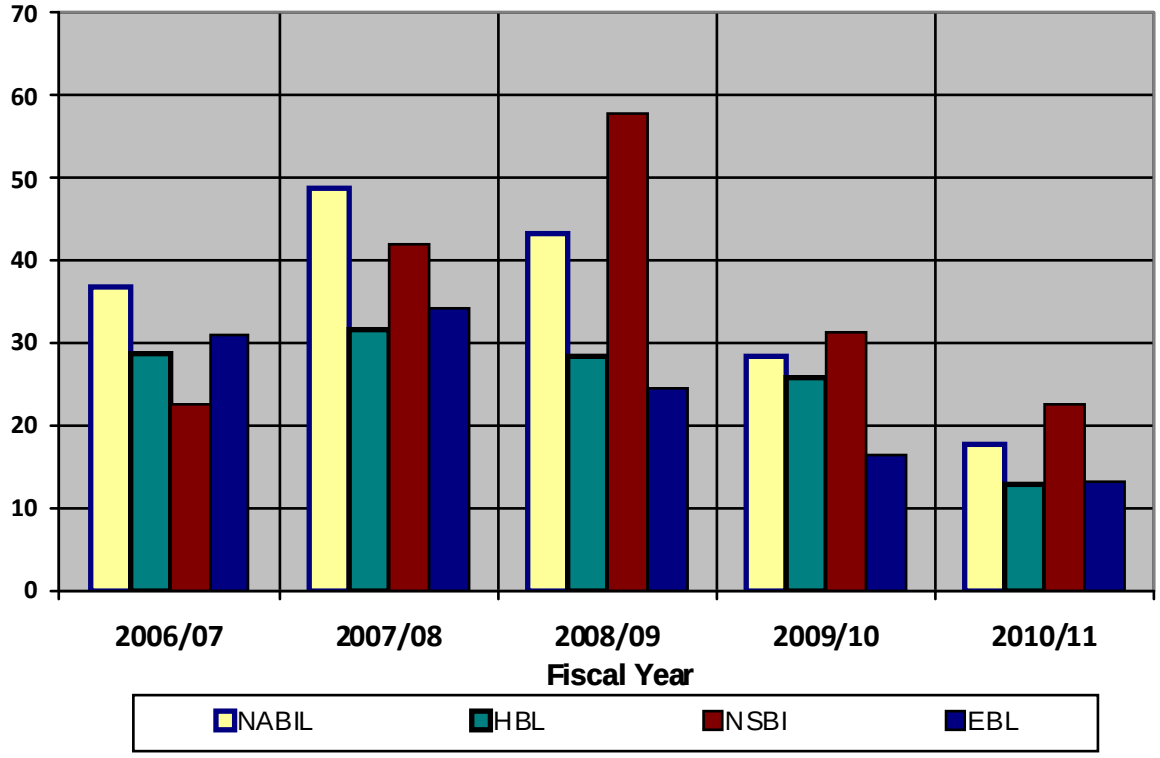
Source: Appendix XIII

The above table no 4.5.2 shows price earning ratio (PE Ratio) for NABIL bank, HBL bank, NSBIL bank and EBL bank from 2006/07 to 2010/11. The NABIL's share price is trading 34.98 times of earning with standard deviation of 12.25 and 35.01% of CV. For the HBL bank, its MPS is set 25.44 times of EPS with standard deviation of 7.33% and 28.81% of CV. For the NSBIL bank, its MPS has 35.34 times of EPS with standard deviation of 14.95 and 42.29% of CV. Finally, The EBL bank's MPS is 23.82 times greater than its EPS with standard deviation of 9.06 and 38.05% of CV.

The above table can be shown in the following figure for the five year from 2006/07 to 2010/11.

Figure No: 4.5.2

Comparative Analysis of Price Earning Ratio



From the comparative analysis of price earning ratio, all the banks have fluctuating trend of their price earning ratio that reflect the market value of firm and investors attitude. In average, their market price of share is set to 23-35 times greater than their earning per share. The NSBIL is more variability in PE ratio and HBL is least variability in term of PE ratio.

4.6 Coefficient of Correlation Analysis

Correlation analysis shows the relationship between the variables. Coefficient of correlation is used to measure the degree of relationship between variables. Its range is +1 (+ve) to -1(-ve). Positive figure shows perfectly positively correlation and negative figure shows perfectly negatively correlation. The zero result is interpreted as independent variables. It is denoted by r.

4.6.1 Correlation between Debt-Equity and Return on Equity Ratio

The correlation coefficient between debt to equity (D/E ratio) and return on equity (ROE ratio) will give us information on increase debt capital portion in the capital structure increase return on equity. Here D/E ratio (X) is independent variable and

ROE (Y) is dependent variable. Positive values show the positive relation and negative values shows the negative relation.

The following result is obtained for selected banks

Table No: 4.6.1

Correlation between Return on Equity and Debt-Equity Ratio

Particular	NABIL	HBL	NSBIL	EBL
Correlation	0.1551	0.3780	-0.5079	-0.1086
PE	0.2944	0.2586	0.2238	0.2981
6 x PE	1.7664	1.5513	1.3430	1.7885
Test of Significant	**insignificant**	**insignificant**	**insignificant**	**insignificant**
Reason	r < 6 P.E	r < 6 P.E	r < 6 P.E	r < 6 P.E

Source: Appendix XIV

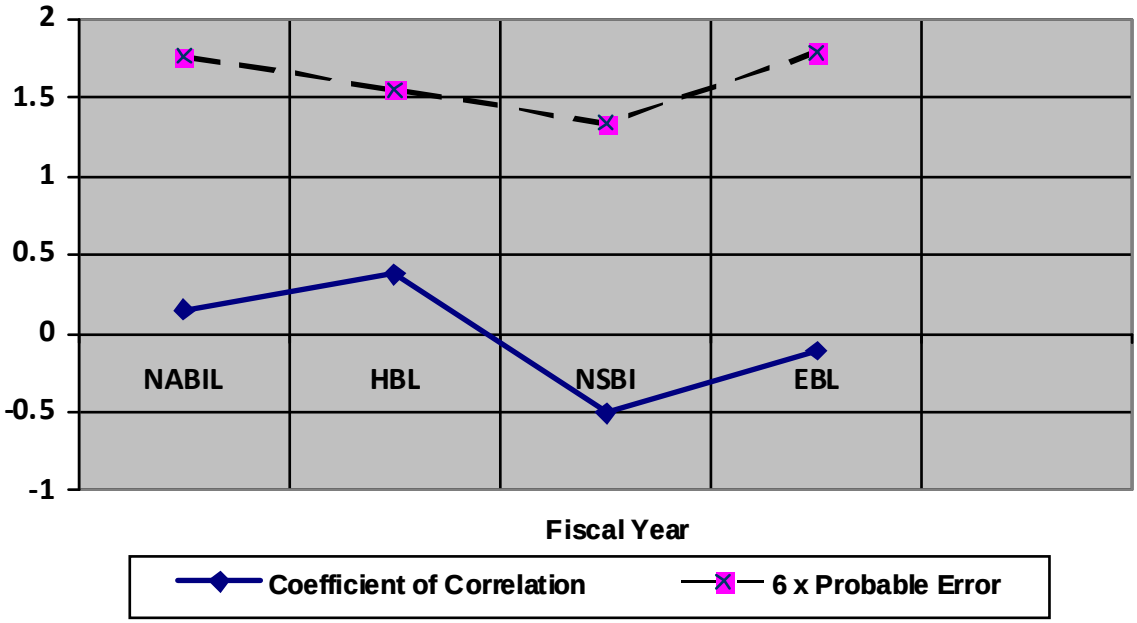
Above table no 4.6.1 shows the correlation coefficient between D/E ratio and ROE of NABIL, HBL, NSBI and EBL bank. The coefficient correlation between D/E ratio and ROW are 0.1551, 0.3780, -0.5079 and -0.1086 for NABIL, HBL, NSBI and EBL bank respectively. Considering the probable error (P.E), 6 times of PE, the value of 'r' is less than six time of P.E in all the banks. Therefore, it is implied that the value of 'r' in all banks are insignificant relationship between D/E ratio and ROE.

The correlation coefficient of NABIL and HBL shows positive relationship i.e. increase in debt capital will increase in ROE and vice versa where as correlation coefficient of NSBIL and EB shows negative relationship i.e. increase in debt capital will decrease in ROE and vice versa.

The Correlation coefficient between D/E ratio and ROE and 6 times of PE can be shown as following figure for the selected banks.

Figure No: 4.6.1

Correlation between Return on Equity and Debt-Equity Ratio



The above figure no 4.6.1 shows the correlation coefficient between D/E ratio and ROE and 6 times of PE for the NABIL, HBL, NSBI and EBL bank. The line chart shows clearly that the line made from coefficient of correlation is below than its 6 PE. Therefore, it is decided that the value of 'r' in all banks are insignificant relationship between D/E ratio and ROE.

4.6.2 Correlation between Debt-Equity Ratio and Return on Assets

The correlation coefficient between D/E ratio and ROA of selected banks are analyzed in order to examine which debt capital is significant in generating more return it is assumed that there is significant relationship between debt capital and return. Here D/E ratio (X) is independent variable and ROA (Y) is dependent variable positive values shows positive relation and negative values shows that negative relation. The following result is obtained for selected banks

Table No: 4.6.2

Correlation between Debt-Equity Ratio and Return on Assets

Particular	NABIL	HBL	NSBIL	EBL
Correlation	-0.7313	-0.2484	-0.8790	-0.6644
PE	0.1403	0.2830	0.0686	0.1685
6 x PE	0.8421	1.6982	0.4116	1.0109
Test of Significant	**insignificant**	**insignificant**	**insignificant**	**insignificant**
Reason	r < 6 P.E	r < 6 P.E	r < 6 P.E	r < 6 P.E

Source: Appendix XV

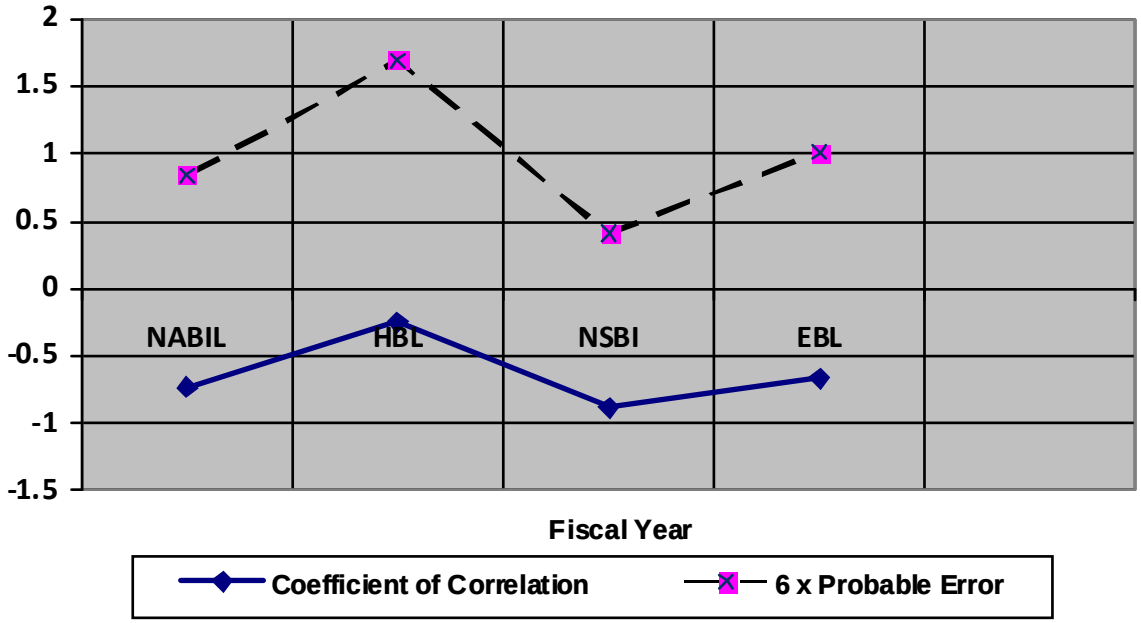
Above table no 4.6.2 shows the correlation coefficient between D/E ratio and ROA of NABIL, HBL, NSBI and EBL bank. The coefficient correlation between D/E ratio and ROA are -0.7313, -0.2484, -0.8790 and -0.6644 for NABIL, HBL, NSBI and EBL bank respectively. Considering the probable error (P.E), 6 times of PE, the value of 'r' is less than six time of P.E in all the banks. Therefore, it is implied that the value of 'r' in all banks are insignificant relationship between D/E ratio and ROA.

The correlation coefficient of between Debt equity ratio and return on assets shows negative relationship i.e. increase in debt capital will decrease in ROA and vice versa.

The Correlation coefficient between D/E ratio and ROA and 6 times of PE can be shown as following figure for the selected banks.

Figure No: 4.6.2

Correlation between Debt-Equity Ratio and Return on Assets



The above figure no 4.6.2 shows the correlation coefficient between D/E ratio and ROA and 6 times of PE for the NABIL, HBL, NSBI and EBL bank. The line chart shows clearly that the line made from coefficient of correlation is below than its 6 PE. Therefore, it is noticed that the value of 'r' in all banks are insignificant relationship between D/E ratio and ROA.

4.7 Major Findings of the Study

From Comparative Capital Structure Analysis

1. All the banks are continuously increasing their value from the beginning year of study period 2006/07 to the end of the study year 2010/11. The HBL bank is very consistency in term of value of firm than that of others banks.

2. From the comparative analysis net income approach, all the banks have fluctuating trend of their overall capitalization rate for year to year. But it is nearly set to the 5.50%. The NABIL bank has greater capitalization rate than that of others bank and NSBI bank has lowest rate of capitalization.

3. From the comparative analysis of net operating income approach, all the banks have fluctuating trend of their equity capitalization rate for year to year. As per mean value of equity capitalization rate it is nearly about to the 5%. The EBL bank

has greater equity capitalization rate than that of others bank and NSBI bank has lowest rate of equity capitalization.

From Comparative analysis of Components Cost of Capital

4. From the comparative analysis of cost of equity, all the banks have fluctuating trend of their cost of equity for year to year. As per mean value of cost of equity it is nearly about to the 15% to 17%. The NABIL bank has greater variability in cost of equity than that of others bank due to higher CV and NSBI bank has less variability due to lowest cost of equity.

5. From the comparative analysis of cost of debt after tax, all the banks have fluctuating trend of their cost of debt after tax for year to year. As per mean value of cost of debt after tax, it is nearly about to the 2.50%. The NABIL bank has lowest cost of debt after tax NSBI and EBL bank have higher cost of debt after tax.

6. From the comparative analysis of overall cost of capital (Ko), all the banks have the higher cost on their capital at the end. As per mean value of Ko, it is nearly about to the 3.50%. The NABIL bank has lowest overall cost of capital and HBL bank has higher cost of capital.

From Comparative Leverage Ratio Analysis

7. From the comparative analysis of debt to equity ratio, The Everest bank has contributed highly by the debt in comparison to the equity over the period because it has higher debt ratio that that of others banks. But NABIL bank is performing the best in the ratio due to the lower coefficient of variation of the debt to equity ratio.

8. From the comparative analysis of the total debt to total assets ratio, The Everest bank is regarded as highly levered firm because it has higher total debt ratio that that of others banks. In average the bank has 93.59% of contribution in total assets but NABIL bank is performing the best in term of coefficient of variation of the debt to total assets ratio.

9. From the comparative analysis interest coverage ratio, all the banks are capable to pay the interest on their total debt for entire fiscal year. Because all the banks have interest coverage ratio are higher than of 1.

From Comparative Profitability Ratio Analysis

10. From the above comparative analysis of return on asset, The NABIL bank has got more return of 2.26% in average on total assets among the entire banks and NSBI bank has lower Return on assets ratio than that of other banks.

11. From the above comparative analysis of return on equity, The NABIL bank has got more profit based on shareholder's equity. Because it has greater ROE ratio of 31.08% in average among the entire banks and its earning is also less variability in ROE ratio So, NABIL is performing very well in profitability. But NSBI bank has lower Return on equity.

From Comparative Market Related Ratio Analysis

12. From the comparative analysis of dividend payout ratio, all the banks have fluctuating trend of their payment to the shareholders which include stock dividend as well as cash dividend for year to year. NSBIL pay the higher than that of others and the EBL bank lower dividend payout ratio but least variability in dividend payment.

13. From the comparative analysis of price earning ratio, In average, the market price of share is set to 23-35 times greater than their earning per share. The NSBIL is more variability in PE ratio and HBL is least variability in term of PE ratio.

From Comparative Coefficient of Correlation Analysis

14. The correlation coefficient of NABIL and HBL shows positive relationship i.e. increase in debt capital will increase in ROE and vice versa where as correlation coefficient of NSBIL and EB shows negative relationship i.e. increase in debt capital will decrease in ROE and vice versa.

15. The correlation coefficient of between Debt equity ratio and return on assets shows negative relationship i.e. increase in debt capital will decrease in ROA and vice versa.

.CHAPTER - V
SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter is the extract of all the previously discussed chapters. This chapter includes three parts: Summary, Conclusion and Recommendation.

5.1 Summary

Although the development of commercial and industrial sectors opens the door of progress and prosperity in the country, industrialization in Nepal is started lately, only after the Second World War. But even that time also the fewer number of the industries were established. Establishment of manufacturing companies is the main way of industrial development in the country. Similarly, the development of banking sector is also the most essence for uplifting the activities related to the financial situations. Banking sector is the back bone of industrial development. Banking sector plays an important role in the economic development of the country. Commercial banks are one of the vital aspects of this sector, which deals in the process of channeling the available resources in the needed sectors. It is the intermediary between the deficit and surpluses of financial resources.

Capital is the first essence of each and every business firm to establish and operate the business activities. Capital is the blood or root of the business. Capital is a scare sources and much more essential to maintain smooth operation of any firm. As in order form, capital structure is crucial part for banking industry too. 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. The capital structure concept has an important place in the theory of financial management. A proper balance between debt and equity is necessary to ensure a tradeoff between risk and return to the shareholders.

A capital structure with a reasonable proportion of debt and equity capital is called optimum capital structure. The main function of manager is to determine the proportion of equity and debt capital. If a company can increase its total valuation by varying its capital structure, an optimal financing mix would be increase. The capital

structure and cost of capital both are important in maximizing the wealth of shareholders. Therefore, the financial manager should try his/her best to optimize the capital structure and minimize the overall cost of capital.

The study mainly aims to analyze the relationship among capital structure, cost of capital and other variables in the context of Nepalese commercial banks. Among many commercial banks, Nabil bank Limited, Himalayan bank Ltd. Nepal SBI bank Limited and Everest Bank Limited are taken as sample for the study and providing same type of service to the customers. Due to the time and resources constraints, all types of analysis are not conducted. The study covers five fiscal years starting from 2006/07 to 2010/11. The study depends on the secondary data collected from different sources. Journals, articles, annual reports are the secondary data used in this study. Analysis is done categorically and in a simple way. Tables and figures are drawn to make the analysis easier to understand.

5.2 Conclusion

This study tries to analyzed the capital structure of the sample companies based on the data provided in the financial statements as well as other concerned information. From the study, it is tried to establish the relationship between leverage and profitability. Some ratios, which are related with capital structure, are computed overall capitalization rate and equity capitalization rate, correlation between some relevant variables are also included. Based on these calculation and analysis, the following conclusion is drawn from the study.

1. All the banks are continuously increasing their value from the beginning year of study period 2006/07 to the end of the study year 2010/11. The HBL bank is very consistency in term of value of firm than that of others banks.

2. From the comparative analysis net income approach, all the banks have fluctuating trend of their overall capitalization rate for year to year. But it is nearly set to the 5.50%. The NABIL bank has greater capitalization rate than that of others bank and NSBI bank has lowest rate of capitalization.

3. From the comparative analysis of net operating income approach, all the banks have fluctuating trend of their equity capitalization rate for year to year. As per

mean value of equity capitalization rate it is nearly about to the 5%. The EBL bank has greater equity capitalization rate than that of others bank and NSBI bank has lowest rate of equity capitalization.

4. The four banks are using both equity and debt capital in their capital structure. The ratio of debt is slightly fluctuating trend; the creditors margin of safety is very low, which shows high risk, the selected banks are low leveraged in terms of debt to total assets ratio on five year time horizon which shows all four banks have lower level of debt financing of assets.

5. From the comparative analysis of the total debt to total assets ratio, The Everest bank is regarded as highly levered firm because it has higher total debt ratio that that of others banks. In average the bank has 93.59% of contribution in total assets but NABIL bank is performing the best in term of coefficient of variation of the debt to total assets ratio.

6. The average interest coverage ratio of NABIL is 2.21 times, which is highest ratio in four banks. It shows that the interest payment of NABIL is covered by EBIT and it has higher debt servicing capacity. The NSBIL has low interest coverage ratio than others.

7. The ROA of NABIL is higher than other banks. It means that NABIL is utilizing its assets in profitable investment. The ROA of NSBIL is lower than other banks. It means that NSBIL is not properly using its assets than other banks.

8. ROE of all banks is in good conditions, which is more than about 20%. The highest average ROE of NABIL is 31.08%, which indicates good performance of bank whereas the lowest average ROE of NSBIL is 18.00% which indicates weak performance of bank is maximizing shareholders equity than other banks.

9. All the banks have fluctuating trend of their payment to the shareholders which include stock dividend as well as cash dividend for year to year. NSBIL pay the higher than that of others and the EBL bank lower dividend payout ratio but least variability in dividend payment.

10. The average P/E ratio of NSBIL is 35.34 times which is highest than other banks because its market value per share is in increasing trend. Whereas EBL has lowest average P/E ratio of 23.82 because it's market value per share is in decreasing trend. Price earning ratio of all banks shows fluctuating trend in the study period.
11. The correlation coefficient of NABIL and HBL shows positive relationship i.e. increase in debt capital will increase in ROE and vice versa where as correlation coefficient of NSBIL and EB shows negative relationship i.e. increase in debt capital will decrease in ROE and vice versa.

12. The correlation coefficient of between Debt equity ratio and return on assets shows negative relationship i.e. increase in debt capital will decrease in ROA and vice versa.

5.3 Recommendations

On the basis of core analysis and findings, some points that can be helpful to stakeholders as well as to the company are recommended in this section of the study. These recommendations are given below:

1. The knowledge of capital structure and cost of capital plays vital role in uplifting the financial position of the banks. The analysis of cost of capital is very much important in making investment at different projects because of competition. So, the management of the banks always should be well informed about sources of capital, their reliability and their cost.

2. The capital structure of selected banks is highly leveraged. NABIL has lower leverage ratio in compared to other banks. It is good making handsome return by employing outsiders fund but at same time it also brings risk to the bank.

The proportion of debt and equity capital should be decided keeping in mind that effort of tax advantage and financial distress.

3. The Return on total assets (ROA) NSBIL bank is low in comparison to NABIL and EBL bank. So, the bank needs to seek more profitable area in order to increase profit of the bank. And it also needs to maintain optimal capital structure considering cost of capital so that it helps to enhance the profitability of the bank.

4. Dividend payout ratio should be determined considering the shareholders expectation and the growth requirements of the banks. A higher payment attracts both the existing and potential investors leading to increase in market price of the share, which consequently leads to the strength of financial capacity. Hence, HBL and EBL banks are recommended to maintain consistent dividend payout ratio.

5. The earnings of all the selected banks are fluctuating yearly. The banks need to enhance their profitability by increasing efficiency in their productivity and decreasing the cost.

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www.ebl.com.np
www.nepalsharemarket.com

APPENDIXES

Appendix I

1. Capital Structure of NABIL Bank Ltd

(Rs. in Million)

Fiscal Year	Total Debt	Total Equity	Value of Firm	Wd	We
2006/07	25196.35	2057.04	27253.39	0.9245	0.0755
2007/08	34695.56	2437.19	37132.75	0.9344	0.0656
2008/09	40737.16	3130.23	43867.39	0.9286	0.0714
2009/10	48315.48	3834.75	52150.23	0.9265	0.0735
2010/11	53574.92	4566.52	58141.44	0.9215	0.0785

2. Capital Structure of HBL Bank Ltd

(Rs. in Million)

Fiscal Year	Total Debt	Total Equity	Value of Firm	Wd	We
2006/07	31372.64	2146.5	33519.14	0.9360	0.0640
2007/08	33662.54	2512.99	36175.53	0.9305	0.0695
2008/09	36200.43	3119.89	39320.32	0.9207	0.0793
2009/10	39277.91	3439.21	42717.12	0.9195	0.0805
2010/11	42740.8	3995.4	46736.2	0.9145	0.0855

3. Capital Structure of NSBIL Bank Ltd

(Rs. in Million)

Fiscal Year	Total Debt	Total Equity	Value of Firm	Wd	We
2006/07	12737.91	1163.29	13901.2	0.9163	0.0837
2007/08	15772.8	1414.65	17187.45	0.9177	0.0823
2008/09	28453.83	1712.61	30166.44	0.9432	0.0568
2009/10	35597.14	2450.56	38047.7	0.9356	0.0644
2010/11	43208.94	2879.29	46088.23	0.9375	0.0625

4. Capital Structure of EBL Bank Ltd

(Rs. in Million)

Fiscal Year	Total Debt	Total Equity	Value of Firm	Wd	We
2006/07	20231.05	1201.52	21432.57	0.9439	0.0561
2007/08	25228.1	1921.24	27149.34	0.9292	0.0708
2008/09	34713.85	2203	36916.85	0.9403	0.0597
2009/10	38623.62	2759.14	41382.76	0.9333	0.0667
2010/11	43122.66	3113.55	46236.21	0.9327	0.0673

Appendix II

1. Net Income Approach of NABIL Bank Ltd

(Rs. in Million)

Fiscal Year	EBIT	Value of Firm	Ko (%)
2006/07	1550.75	27253.39	5.69%
2007/08	1847.43	37132.75	4.98%
2008/09	2631.94	43867.39	6.00%
2009/10	3585.28	52150.23	6.87%
2010/11	5039.59	58141.44	8.67%

2. Net Income Approach of HBL Bank Ltd

(Rs. in Million)

Fiscal Year	EBIT	Value of Firm	Ko (%)
2006/07	1456.3	33519.14	4.34%
2007/08	1778.69	36175.53	4.92%
2008/09	2094.7332	39320.32	5.33%
2009/10	2132.76	42717.12	4.99%
2010/11	3430.02	46736.2	7.34%

3. Net Income Approach of NSBIL Bank Ltd

(Rs. in Million)

Fiscal Year	EBIT	Value of Firm	Ko (%)
2006/07	756.85	13901.2	5.44%
2007/08	802.95	17187.45	4.67%
2008/09	1267.73	30166.44	4.20%
2009/10	1982.05	38047.7	5.21%
2010/11	2749.51	46088.23	5.97%

4. Net Income Approach of EBL Bank Ltd

(Rs. in Million)

Fiscal Year	EBIT	Value of Firm	Ko (%)
2006/07	971.98	21432.57	4.54%
2007/08	1291.24	27149.34	4.76%
2008/09	1904.26	36916.85	5.16%
2009/10	2760.81	41382.76	6.67%
2010/11	3866.95	46236.21	8.36%

Appendix III

1. Net Operating Income of NABIL Bank Ltd

(Rs. in Million)

Fiscal Year	EBT	NOS	MPS	Market Value of Firm	Ke (%)
2006/07	995.05	4.9165	5050.00	24828.33	4.01%
2007/08	1088.99	6.8920	5275.00	36355.30	3.00%
2008/09	1478.67	9.6570	4899.00	47309.64	3.13%
2009/10	1625.18	14.4900	2384.00	34544.16	4.70%
2010/11	2092.91	20.2977	1252.00	25412.72	8.24%

2. Net Operating Income of HBL Bank Ltd

(Rs. in Million)

Fiscal Year	EBT	NOS	MPS	Market Value of Firm	Ke (%)
2006/07	688.89	8.1100	1740	14111.40	4.88%
2007/08	954.95	10.1400	1980	20077.20	4.76%
2008/09	1159.95	12.1600	1760	21401.60	5.42%
2009/10	579.23	16.0000	816	13056.00	4.44%
2010/11	1015.21	20.0000	575	11500.00	8.83%

3. Net Operating Income of NSBIL Bank Ltd

(Rs. in Million)

Fiscal Year	EBT	NOS	MPS	Market Value of Firm	Ke (%)
2006/07	344.59	4.9165	1176	5781.80	5.96%
2007/08	348.03	6.892	1511	10413.81	3.34%
2008/09	443.03	9.657	1900	18348.30	2.41%
2009/10	538.36	16.5362	741	12253.32	4.39%
2010/11	653.47	18.693	565	10561.55	6.19%

4. Net Operating Income of EBL Bank Ltd

(Rs. in Million)

Fiscal Year	EBT	NOS	MPS	Market Value of Firm	Ke (%)
2006/07	454.74	3.78	2430.00	9185.40	4.95%
2007/08	658.62	4.91	3132.00	15390.65	4.28%
2008/09	891.34	6.39	2455.00	15684.56	5.68%
2009/10	1188.04	8.30	1630.00	13536.61	8.78%
2010/11	1331.02	11.20	1094.00	12248.42	10.87%

Appendix IV

1. Cost of Equity (Ke) of NABIL Bank Ltd

(Rs. in Million)

Fiscal Year	NOS	DPS	Dividend Paid	Total Equity	Ke
2006/07	4.9165	100.00	491.65	2057.04	23.90%
2007/08	6.8920	60.00	413.53	2437.19	16.97%
2008/09	9.6570	85.00	820.85	3130.23	26.22%
2009/10	14.4900	70.00	1014.30	3834.75	26.45%
2010/11	20.2977	30.00	608.93	4566.52	13.33%

2. Cost of Equity (Ke) of HBL Bank Ltd

(Rs. in Million)

Fiscal Year	NOS	DPS	Dividend Paid	Total Equity	Ke
2006/07	8.1100	40.00	324.40	2146.50	15.11%
2007/08	10.1400	45.00	456.30	2512.99	18.16%
2008/09	12.1600	43.56	529.69	3119.89	16.98%
2009/10	16.0000	36.84	589.44	3439.21	17.14%
2010/11	20.0000	36.84	736.80	3995.40	18.44%

3. Cost of Equity (Ke) of NSBIL Bank Ltd

(Rs. in Million)

Fiscal Year	NOS	DPS	Dividend Paid	Total Equity	Ke
2006/07	4.9165	47.59	233.98	1163.29	20.11%
2007/08	6.8920	-	-	1414.65	-
2008/09	9.6570	42.11	406.66	1712.61	23.74%
2009/10	16.5362	17.50	289.38	2450.56	11.81%
2010/11	18.6930	17.50	327.13	2879.29	11.36%

4. Cost of Equity (Ke) of EBL Bank Ltd

(Rs. in Million)

Fiscal Year	NOS	DPS	Dividend Paid	Total Equity	Ke
2006/07	3.7800	40.00	151.20	1201.52	12.58%
2007/08	4.9140	50.00	245.70	1921.24	12.79%
2008/09	6.3888	60.00	383.33	2203.00	17.40%
2009/10	8.3047	60.00	498.28	2759.14	18.06%
2010/11	11.1960	60.00	671.76	3113.55	21.58%

Appendix V

1. Cost of Debt (Kd) of NABIL Bank Ltd

(Rs. in Million)

Fiscal Year	Total Debt	Interest Expenses	Kd	Kdt
2006/07	25196.35	555.71	2.21%	1.54%
2007/08	34695.56	758.43	2.19%	1.53%
2008/09	40737.16	1153.28	2.83%	1.98%
2009/10	48315.48	1960.1	4.06%	2.84%
2010/11	53574.92	2955.43	5.52%	3.86%

2. Cost of Debt (Kd) of HBL Bank Ltd

(Rs. in Million)

Fiscal Year	Total Debt	Interest Expenses	Kd	Kdt
2006/07	31372.64	767.41	2.45%	1.71%
2007/08	33662.54	823.74	2.45%	1.71%
2008/09	36200.43	934.78	2.58%	1.81%
2009/10	39277.91	1553.53	3.96%	2.77%
2010/11	42740.80	2414.81	5.65%	3.95%

3. Cost of Debt (Kd) of NSBIL Bank Ltd

(Rs. in Million)

Fiscal Year	Total Debt	Interest Expenses	Kd	Kdt
2006/07	12737.91	412.26	3.24%	2.27%
2007/08	15772.80	454.92	2.88%	2.02%
2008/09	28453.83	824.70	2.90%	2.03%
2009/10	35597.14	1443.69	4.06%	2.84%
2010/11	43208.94	2096.04	4.85%	3.40%

4. Cost of Debt (Kd) of EBL Bank Ltd

(Rs. in Million)

Fiscal Year	Total Debt	Interest Expenses	Kd	Kdt
2006/07	20231.05	517.24	2.56%	1.79%
2007/08	25228.10	632.62	2.51%	1.76%
2008/09	34713.85	1012.92	2.92%	2.04%
2009/10	38623.62	1572.77	4.07%	2.85%
2010/11	43122.66	2535.93	5.88%	4.12%

Appendix VI

1. Overall Cost of Capital of NABIL Bank Ltd (Ko)

(Rs. in Million)

Fiscal Year	Wd	We	Ke	Kdt	WACC
2006/07	0.9245	0.0755	23.90%	1.54%	3.23%
2007/08	0.9344	0.0656	16.97%	1.53%	2.54%
2008/09	0.9286	0.0714	10.83%	1.98%	2.61%
2009/10	0.9265	0.0735	11.34%	2.84%	3.46%
2010/11	0.9215	0.0785	13.33%	3.86%	4.61%

2. Overall Cost of Capital of HBL Bank Ltd (Ko)

(Rs. in Million)

Fiscal Year	Wd	We	Ke	Kdt	WACC
2006/07	0.9360	0.0640	15.11%	1.71%	2.57%
2007/08	0.9305	0.0695	18.16%	1.71%	2.86%
2008/09	0.9207	0.0793	16.98%	1.81%	3.01%
2009/10	0.9195	0.0805	17.14%	2.77%	3.93%
2010/11	0.9145	0.0855	18.44%	3.95%	5.19%

3. Overall Cost of Capital of NSBIL Bank Ltd (Ko)

(Rs. in Million)

Fiscal Year	Wd	We	Ke	Kdt	WACC
2006/07	0.9163	0.0837	20.11%	2.27%	3.76%
2007/08	0.9177	0.0823	-	2.02%	1.85%
2008/09	0.9432	0.0568	23.74%	2.03%	3.26%
2009/10	0.9356	0.0644	11.81%	2.84%	3.42%
2010/11	0.9375	0.0625	11.36%	3.40%	3.89%

4. Overall Cost of Capital of EBL Bank Ltd (Ko)

(Rs. in Million)

Fiscal Year	Wd	We	Ke	Kdt	WACC
2006/07	0.9439	0.0561	12.58%	1.79%	2.39%
2007/08	0.9292	0.0708	12.79%	1.76%	2.54%
2008/09	0.9403	0.0597	17.40%	2.04%	2.96%
2009/10	0.9333	0.0667	18.06%	2.85%	3.86%
2010/11	0.9327	0.0673	21.58%	4.12%	5.29%

Appendix VII

1. Debt to Equity Ratio (D/E Ratio) of NABIL Bank Ltd 47

(Rs. in Million)

Fiscal Year	Total Debt	Shareholders' Equity	D/E Ratio
2006/07	25196.35	2057.04	12.25
2007/08	34695.56	2437.19	14.24
2008/09	40737.16	3130.23	13.01
2009/10	48315.48	3834.75	12.60
2010/11	53574.92	4566.52	11.73

2. Debt to Equity Ratio (D/E Ratio) of HBL Bank Ltd 47

(Rs. in Million)

Fiscal Year	Total Debt	Shareholders' Equity	D/E Ratio
2006/07	31372.64	2146.50	14.62
2007/08	33662.54	2512.99	13.40
2008/09	36200.43	3119.89	11.60
2009/10	39277.91	3439.21	11.42
2010/11	42740.80	3995.40	10.70

3. Debt to Equity Ratio (D/E Ratio) of NSBIL Bank Ltd 47

(Rs. in Million)

Fiscal Year	Total Debt	Shareholders' Equity	D/E Ratio
2006/07	12737.91	1163.29	10.95
2007/08	15772.80	1414.65	11.15
2008/09	28453.83	1712.61	16.61
2009/10	35597.14	2450.56	14.53
2010/11	43208.94	2879.29	15.01

4. Debt to Equity Ratio (D/E Ratio) of EBL Bank Ltd 47

(Rs. in Million)

Fiscal Year	Total Debt	Shareholders' Equity	D/E Ratio
2006/07	20231.05	1201.52	16.84
2007/08	25228.10	1921.24	13.13
2008/09	34713.85	2203.00	15.76
2009/10	38623.62	2759.14	14.00
2010/11	43122.66	3113.55	13.85

Appendix VIII

1. Total Debt to Total Assets Ratio of NABIL Bank Ltd

(Rs. in Million)

Fiscal Year	Total Debt	Total Assets	TD/TA Ratio
2006/07	25196.35	27253.39	92.45%
2007/08	34695.56	37132.75	93.44%
2008/09	40737.16	43867.39	92.86%
2009/10	48315.48	52150.23	92.65%
2010/11	53574.92	58141.44	92.15%

2. Total Debt to Total Assets Ratio of HBL Bank Ltd

(Rs. in Million)

Fiscal Year	Total Debt	Total Assets	TD/TA Ratio
2006/07	31372.64	33519.14	93.60%
2007/08	33662.54	36175.53	93.05%
2008/09	36200.43	39320.32	92.07%
2009/10	39277.91	42717.12	91.95%
2010/11	42740.80	46736.20	91.45%

3. Total Debt to Total Assets Ratio of NSBIL Bank Ltd

(Rs. in Million)

Fiscal Year	Total Debt	Total Assets	TD/TA Ratio
2006/07	12737.91	13901.20	91.63%
2007/08	15772.80	17187.45	91.77%
2008/09	28453.83	30166.44	94.32%
2009/10	35597.14	38047.70	93.56%
2010/11	43208.94	46088.23	93.75%

4. Total Debt to Total Assets Ratio of EBL Bank Ltd

(Rs. in Million)

Fiscal Year	Total Debt	Total Assets	TD/TA Ratio
2006/07	20231.05	21432.57	94.39%
2007/08	25228.10	27149.34	92.92%
2008/09	34713.85	36916.85	94.03%
2009/10	38623.62	41382.76	93.33%
2010/11	43122.66	46236.21	93.27%

Appendix IX

1. Interest Coverage Ratio of NABIL Bank Ltd

(Rs. in Million)

Fiscal Year	EBIT	Interest Expenses	IC Ratio
2006/07	1550.75	555.71	2.7906
2007/08	1847.43	758.43	2.4359
2008/09	2631.94	1153.28	2.2821
2009/10	3585.28	1960.10	1.8291
2010/11	5039.59	2955.43	1.7052

2. Interest Coverage Ratio of HBL Bank Ltd

(Rs. in Million)

Fiscal Year	EBIT	Interest Expenses	IC Ratio
2006/07	1456.30	767.41	1.8977
2007/08	1778.69	823.74	2.1593
2008/09	2094.73	934.78	2.2409
2009/10	2132.76	1553.53	1.3728
2010/11	3430.02	2414.81	1.4204

3. Interest Coverage Ratio of NSBIL Bank Ltd

(Rs. in Million)

Fiscal Year	EBIT	Interest Expenses	IC Ratio
2006/07	756.85	412.26	1.8359
2007/08	802.95	454.92	1.7650
2008/09	1267.73	824.70	1.5372
2009/10	1982.05	1443.69	1.3729
2010/11	2749.51	2096.04	1.3118

4. Interest Coverage Ratio of EBL Bank Ltd

(Rs. in Million)

Fiscal Year	EBIT	Interest Expenses	IC Ratio
2006/07	971.98	517.24	1.8792
2007/08	1291.24	632.62	2.0411
2008/09	1904.26	1012.92	1.8800
2009/10	2760.81	1572.77	1.7554
2010/11	3866.95	2535.93	1.5249

Appendix X

1. Return on Total Asset of NABIL Bank Ltd

(Rs. in Million)

Fiscal Year	NPAT	Total Assets	ROA Ratio
2006/07	673.96	27250.39	2.47%
2007/08	746.47	37132.75	2.01%
2008/09	1031.05	43867.39	2.35%
2009/10	1141.05	52150.23	2.19%
2010/11	1337.75	58141.44	2.30%

2. Return on Total Asset of HBL Bank Ltd

(Rs. in Million)

Fiscal Year	NPAT	Total Assets	ROA Ratio
2006/07	491.95	33519.14	1.47%
2007/08	636.18	36175.53	1.76%
2008/09	752.70	39320.32	1.91%
2009/10	508.80	42717.12	1.19%
2010/11	893.20	46736.20	1.91%

3. Return on Total Asset of NSBIL Bank Ltd

(Rs. in Million)

Fiscal Year	NPAT	Total Assets	ROA Ratio
2006/07	254.91	13901.20	1.83%
2007/08	247.77	17187.45	1.44%
2008/09	316.37	30166.44	1.05%
2009/10	391.74	38047.70	1.03%
2010/11	464.57	46088.23	1.01%

4. Return on Total Asset of EBL Bank Ltd

(Rs. in Million)

Fiscal Year	NPAT	Total Assets	ROA Ratio
2006/07	296.42	21432.57	1.38%
2007/08	451.23	27149.34	1.66%
2008/09	638.69	36916.85	1.73%
2009/10	831.81	41382.76	2.01%
2010/11	931.34	46236.21	2.01%

Appendix XII

1. Return on Equity of NABIL Bank Ltd

(Rs. in Million)

Fiscal Year	NPAT	Shareholders' Equity	ROE Ratio
2006/07	673.96	2057.04	32.76%
2007/08	746.47	2437.19	30.63%
2008/09	1031.05	3130.23	32.94%
2009/10	1141.05	3834.75	29.76%
2010/11	1337.75	4566.52	29.29%

2. Return on Equity of HBL Bank Ltd

(Rs. in Million)

Fiscal Year	NPAT	Shareholders' Equity	ROE Ratio
2006/07	491.95	2146.50	22.92%
2007/08	636.18	2512.99	25.32%
2008/09	752.70	3119.89	24.13%
2009/10	508.80	3439.21	14.79%
2010/11	893.20	3995.40	22.36%

3. Return on Equity of NSBIL Bank Ltd

(Rs. in Million)

Fiscal Year	NPAT	Shareholders' Equity	ROE Ratio
2006/07	254.91	1163.29	21.91%
2007/08	247.77	1414.65	17.51%
2008/09	316.37	1712.61	18.47%
2009/10	391.74	2450.56	15.99%
2010/11	464.57	2879.29	16.13%

4. Return on Equity of EBL Bank Ltd

(Rs. in Million)

Fiscal Year	NPAT	Shareholders' Equity	ROE Ratio
2006/07	296.42	1201.52	24.67%
2007/08	451.23	1921.24	23.49%
2008/09	638.69	2203.00	28.99%
2009/10	831.81	2759.14	30.15%
2010/11	931.34	3113.55	29.91%

Appendix XIII

1. Dividend Payout Ratio of NABIL Bank Ltd

(Rs. in Million)

Fiscal Year	DPS	EPS	DP Ratio
2006/07	100.00	137.08	72.95%
2007/08	60.00	108.31	55.40%
2008/09	85.00	113.44	74.93%
2009/10	70.00	83.81	83.52%
2010/11	30.00	70.67	42.45%

2. Dividend Payout Ratio of HBL Bank Ltd

(Rs. in Million)

Fiscal Year	DPS	EPS	DP Ratio
2006/07	40.00	60.66	65.94%
2007/08	45.00	62.74	71.72%
2008/09	43.56	61.90	70.37%
2009/10	36.84	31.80	115.85%
2010/11	36.84	44.66	82.49%

3. Dividend Payout Ratio of NSBIL Bank Ltd

(Rs. in Million)

Fiscal Year	DPS	EPS	DP Ratio
2006/07	47.59	51.85	91.79%
2007/08	-	35.95	-
2008/09	42.11	32.76	128.54%
2009/10	17.50	23.69	73.87%
2010/11	17.50	24.85	70.42%

4. Dividend Payout Ratio of EBL Bank Ltd

(Rs. in Million)

Fiscal Year	DPS	EPS	DP Ratio
2006/07	40.00	78.42	51.01%
2007/08	50.00	91.82	54.45%
2008/09	60.00	99.99	60.01%
2009/10	60.00	100.16	59.90%
2010/11	60.00	83.18	72.13%

Appendix XIV

1. Price Earning Ratio of NABIL Bank Ltd

(Rs. in Million)

Fiscal Year	MPS	EPS	PE Ratio
2006/07	5050	137.08	36.84
2007/08	5275	108.31	48.70
2008/09	4899	113.44	43.19
2009/10	2384	83.81	28.45
2010/11	1252	70.67	17.72

2. Price Earning Ratio of HBL Bank Ltd

(Rs. in Million)

Fiscal Year	MPS	EPS	PE Ratio
2006/07	1740	60.66	28.68
2007/08	1980	62.74	31.56
2008/09	1760	61.90	28.43
2009/10	816	31.80	25.66
2010/11	575	44.66	12.88

3. Price Earning Ratio of NSBIL Bank Ltd

(Rs. in Million)

Fiscal Year	MPS	EPS	PE Ratio
2006/07	1176	51.85	22.68
2007/08	1511	35.95	42.03
2008/09	1900	32.76	58.00
2009/10	741	23.69	31.28
2010/11	565	24.85	22.73

4. Price Earning Ratio of EBL Bank Ltd

(Rs. in Million)

Fiscal Year	MPS	EPS	PE Ratio
2006/07	2430	78.42	30.99
2007/08	3132	91.82	34.11
2008/09	2455	99.99	24.55
2009/10	1630	100.16	16.27
2010/11	1094	83.18	13.15

Appendix XV

1. Correlation between Return on Equity and Debt-Equity Ratio of NABIL Bank Ltd

(Rs. in Million)

Fiscal Year	D/E Ratio (X)	ROE Ratio (Y)	x^2	y^2	X*Y
2006/07	12.2488	0.3276	150.0340	0.1073	4.0132
2007/08	14.2359	0.3063	202.6605	0.0938	4.3602
2008/09	13.0141	0.3294	169.3671	0.1085	4.2866
2009/10	12.5994	0.2976	158.7444	0.0885	3.7490
2010/11	11.7321	0.2929	137.6424	0.0858	3.4369
Total	63.8303	1.5538	818.4484	0.4840	19.8459

2. Correlation between Return on Equity and Debt-Equity Ratio of HBL Bank Ltd

(Rs. in Million)

Fiscal Year	D/E Ratio (X)	ROE Ratio (Y)	x^2	y^2	X*Y
2006/07	14.6157	0.2292	213.6192	0.0525	3.3498
2007/08	13.3954	0.2532	179.4371	0.0641	3.3912
2008/09	11.6031	0.2413	134.6322	0.0582	2.7994
2009/10	11.4206	0.1479	130.4306	0.0219	1.6896
2010/11	10.6975	0.2236	114.4366	0.0500	2.3915
Total	61.7324	1.0951	772.5556	0.2467	13.6214

3. Correlation between Return on Equity and Debt-Equity Ratio of NSBIL Bank Ltd

(Rs. in Million)

Fiscal Year	D/E Ratio (X)	ROE Ratio (Y)	x^2	y^2	X*Y
2006/07	10.9499	0.2191	119.9003	0.0480	2.3994
2007/08	11.1496	0.1751	124.3139	0.0307	1.9528
2008/09	16.6143	0.1847	276.0352	0.0341	3.0692
2009/10	14.5261	0.1599	211.0083	0.0256	2.3221
2010/11	15.0068	0.1613	225.2042	0.0260	2.4213
Total	68.2468	0.9002	956.4619	0.1644	12.1648

4. Correlation between Return on Equity and Debt-Equity Ratio of EBL Bank Ltd

(Rs. in Million)

Fiscal Year	D/E Ratio (X)	ROE Ratio (Y)	x^2	y^2	X*Y
2006/07	16.8379	0.2467	283.5142	0.0609	4.1540
2007/08	13.1312	0.2349	172.4272	0.0552	3.0840
2008/09	15.7575	0.2899	248.2999	0.0841	4.5684
2009/10	13.9984	0.3015	195.9560	0.0909	4.2202
2010/11	13.8500	0.2991	191.8224	0.0895	4.1429
Total	73.5750	1.3721	1092.0198	0.3804	20.1695

Appendix XVI

1. Correlation between Debt-Equity Ratio and Return on Assets of NABIL Bank Ltd

(Rs. in Million)

Fiscal Year	D/E Ratio (X)	ROA Ratio (Y)	X^2	Y^2	X*Y
2006/07	12.2488	0.0247	150.0340	0.0006	0.3029
2007/08	14.2359	0.0201	202.6605	0.0004	0.2862
2008/09	13.0141	0.0235	169.3671	0.0006	0.3059
2009/10	12.5994	0.0219	158.7444	0.0005	0.2757
2010/11	11.7321	0.0230	137.6424	0.0005	0.2699
Total	63.8303	0.1132	818.4484	0.0026	1.4406

2. Correlation between Debt-Equity Ratio and Return on Assets of HBL Bank Ltd

(Rs. in Million)

Fiscal Year	D/E Ratio (X)	ROA Ratio (Y)	X^2	Y^2	X*Y
2006/07	14.6157	0.0147	213.6192	0.0002	0.2145
2007/08	13.3954	0.0176	179.4371	0.0003	0.2356
2008/09	11.6031	0.0191	134.6322	0.0004	0.2221
2009/10	11.4206	0.0119	130.4306	0.0001	0.1360
2010/11	10.6975	0.0191	114.4366	0.0004	0.2044
Total	61.7324	0.0824	772.5556	0.0014	1.0127

3. Correlation between Debt-Equity Ratio and Return on Assets of NSBIL Bank Ltd

(Rs. in Million)

Fiscal Year	D/E Ratio (X)	ROA Ratio (Y)	X^2	Y^2	X*Y
2006/07	10.9499	0.0183	119.9003	0.0003	0.2008
2007/08	11.1496	0.0144	124.3139	0.0002	0.1607
2008/09	16.6143	0.0105	276.0352	0.0001	0.1742
2009/10	14.5261	0.0103	211.0083	0.0001	0.1496
2010/11	15.0068	0.0101	225.2042	0.0001	0.1513
Total	68.2468	0.0636	956.4619	0.0009	0.8366

4. Correlation between Debt-Equity Ratio and Return on Assets of EBL Bank Ltd

(Rs. in Million)

Fiscal Year	D/E Ratio (X)	ROA Ratio (Y)	X^2	Y^2	X*Y
2006/07	16.8379	0.0138	283.5142	0.0002	0.2329
2007/08	13.1312	0.0166	172.4272	0.0003	0.2182
2008/09	15.7575	0.0173	248.2999	0.0003	0.2726
2009/10	13.9984	0.0201	195.9560	0.0004	0.2814
2010/11	13.8500	0.0201	191.8224	0.0004	0.2790
Total	73.5750	0.0880	1092.0198	0.0077	1.2841