CHAPTER – I
INTRODUCTION

1.1 Background of the Study

A firm's capital structure refers to the mix of its financial liabilities. As financial capital is an uncertain but critical resource for all firms, suppliers of finance are able to exert control over firms. Debt and equity are the two major classes of liabilities, with debt-holders and equity-holders representing the two types of investors in the firm. Each of these is associated with different levels of risk, benefits, and control. While debt-holders exert lower control, they earn a fixed rate of return and are protected by contractual obligations with respect to their investment. Equity-holders are the residual claimants, bearing most of the risk, and, correspondingly, have greater control over decisions.

Questions related to the choice of financing (debt versus equity) have increasingly gained importance in management research. Traditionally examined in the discipline of finance, these issues have gained relevance in the past few years, with researchers examining linkages to strategy and strategic outcomes. The modern financial theory and strategic management are based on very different paradigms, resulting in opposing conclusions. Thus, more integrative research is required to resolve the controversies. Strategic management scholars exhibit disparate opinions regarding the possibility of such integration. A theoretical integration between the two disciplines is indeed possible, and that transaction cost economics and agency theory provides possible avenues. In contrast, the scope for integration is limited, if at all possible. Strategy researchers should neither import empirical results from finance, nor should they work towards integration of strategic and financial research. Therefore, while strategy should expand its domain to study areas traditionally considered in finance, researchers should be careful to maintain a strategic perspective.

Some management researchers have viewed capital structure decisions as arising from the preferences of various stakeholders such as managers, board of directors, and institutional investors. Other researchers have viewed capital structure as an antecedent to firm strategy, such as diversification into new businesses. While these studies have definitely contributed to some understanding of the linkages between strategic management and capital structure, they have largely ignored some basic issues confronting researchers and managers alike, namely: Does it matter how firms finance their assets? and do different modes of financing make a difference? While anecdotal evidence suggests that the amount and type of financing should be closely tied to a firm's strategy few researchers have looked at the strategy/financing interaction. A firm consists of a bundle of resources, some of them able to contribute to sustainable competitive advantage. The financial management function of a firm - including its capital structure decision - deals with the management of the sources and uses of finances. Firms enter into transactions with suppliers of finance (be they debt-holders or equity-holders) when raising capital for strategic assets. The right to partake of the cash flows generated from the assets lies with these suppliers. The debt-to-equity ratio of a firm determines how these cash flows will be shared between debt-holders and equity-holders. In other words, if firms are set up to maximize equity-holder's wealth, then the proportion of cash flows disbursed to debt-holders becomes important. The different types of financing, however, are also associated with different levels of costs. An examination of the net benefit of a firm's assets should incorporate these cost differences along with the value of such assets.

1.1.1 Profile of the Selected Banks

A) Nepal SBI Bank Limited

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 256. 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 and Issued Capitals have been increased to Rs. 100 Crores and Rs. 87.45 Crores, respectively. The local promoters are Employees Provident Fund and Agricultural Development Bank/Nepal. 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 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, five percent is held by the Agricultural Development Bank Nepal and thirty percent is held by the general public.

B) Everest Bank Limited

Everest Bank Limited (EBL) started its operations in 1994 with a view and objective of extending professionalized and efficient banking services to various segments of the society. EBL joined hands with Punjab National Bank (PNB), India as its joint venture partner in 1997.

All the major branches of the bank are connected through Anywhere Branch Banking System (ABBS), a facility which enables a customer to do banking transactions from any of the branches irrespective of their having accounts in other branch. The Bank in association with Smart Choice Technology (SCT) is providing ATM services for its customers. EBL Debit Card can be accessed at

more than 50 ATMs and over 250 Point of Sales across the nation. The bank is also managing the SCT ATM at Tribhuvan International Airport for the convenience of the customers and the travelers, the first and the only bank in Nepal to place ATM outlet at the Airport.

EBL is playing a pivotal role in facilitating remittance to and from across globe. With an aim to help Nepalese citizens working abroad, the bank has entered into arrangements with banks and finance companies in different countries which enables quick remittance of funds by the Nepalese citizens in countries like UAE, Kuwait, Bahrain, Qatar, Saudi Arabia, Malaysia, Singapore and UK.

The Bank recognizes the value of offering a complete range of services. We have pioneered in extending various customer friendly products such as Home Loan, Education Loan, EBL Flexi Loan, EBL Property Plus (Future Lease Rentals), Home Equity Loan, Car Loan, Loan Against Shares, Loan Against Life Insurance Policies and Loan for Professionals. EBL have always endeavored in delivering innovative products suiting the consumer's requirements and needs thus enriching, enabling and beautifying their lives.

1.2 Statement of the Problem

The capital structure decisions i.e. the choice of equity and debt portion in the firms capital structure, ultimately affect the profitability of the organization. The equity portion reduces the risk of bankruptcy and avoids the burden of meeting maturing interest and principal payments but does not provide any tax benefits and due to transaction cost, issue of share a lengthy and expensive process whereas employment of debt to acquire capital resources is cheaper in comparison to equity financing but increases the risk of bankruptcy. Thus, it is seen in the practice that capital structure management is really the important factor that could enhance the ultimate performance of the organization by cutting down irrelevant expenses and encouraging the management to be

conscious enough in choosing the favorable equity debt mix.

In practice, it is noticed that firms procure funds without much of the analysis that may cost them an arm and the leg to survive in the competitive modern business environment for the long. Thus, it seems to be the relevant topic of discussion which tries to explore the capital structure position of selected banks in Nepal, so that the fact can be revealed whether strengthening their proper mixture pattern in capital structure adds to their competitive advantage.

So, this concise study revolves around the derivation of understanding the capital structure pattern of the selected banks in Nepal, namely Nepal SBI Bank Limited (NSBL) and Everest Bank Limited (EBL). For the study, the following research questions have been raised;

a. How efficiently NSBL and EBL are managing their capital structure?
b. Whether the selected banks are able to mobilize their resources properly?
c. How does the leverage decision affect the profitability of the banks?
d. What are the major factors affecting capital structure of banks?

1.3 Objectives of the Study

It aims to analyze, examine and interpret the impact of capital structure on profitability of selected banks of Nepal. To achieve such objectives, the following objectives have been formulated.

a. To analyze the capital structure of banks.
b. To examine the solvency position of banks under study.
c. To evaluate the effect of capital structure on profitability of banks.
d. To compute the return on equity and return on assets of the selected banks.

1.4 Significance of the Study

It is inevitable that the financial mix decision affects the entire valuation of the firm in the long run. As, every firm desire to have high valuation of their shares, the great care must be taken while determining the composition of liabilities. The more employment of ownership capital in financing mix lessens the risk but may bring down the performance due to secured position. On the other hand, the maximum employment of debt increases the risk but helps to improve the profitability during the economic boom.

Therefore, this study seems relevant as it attempts to analyze & determine the right capital structure mix for the selected banks so that their value ultimately increases. It attempts to explore the financial strength and weakness of the selected banks of Nepal and whole of the discussion revolve around the capital structure pattern. The result of the study shows the actual condition of the banks and the necessary ways to overcome issues if any so that their performance can be improved. So, this study is beneficial to:

a. The internal groups as well as external groups to find out the Pros & Cons of financial position, rate of growth, liquidity position & turnover.
b. The shareholders in obtaining the information about the impact of capital structure on profitability of banks to understand the security of their investment.
c. The policy makers for formulating the policy regarding banks.
d. The potential investors, customers & shareholders in taking the right investment decisions.
e. The students to conduct essential research projects.

1.5 Limitations of the Study

Every research study is limited by the various reasons. Similarly, this research study also has certain limitations: such as limitation of the time period, area of the study, lack of sufficient relevant data and morality of respondents and also so on. Its main limitations are summarized below:

a. This study will attempt to analyze the capital structure and profitability only and does not cover the other aspect of finance.

b. The study is limited to only two banks, namely Nepal SBI Bank Limited and Everest Bank Limited, and thus may not represent the whole banking industry of Nepal.

c. This reliability of the secondary data highly depends on the accuracy of the annual report of the concerned banks, and the validity of the primary data depends upon the responses of the respondents.

d. The study covers only five years ranging from fiscal year 2004/05 to 2008/09.

1.6 Organization of the Study

The entire study has been organized into five main chapters as:

Chapter-I: Introduction

The first chapter deals with background of the study, statement of problem, objective of the study, significance of the study and limitations of the study.

Chapter-II: Review of Literature

The second chapter deals with conceptual framework including the fundamental concept capital structure. It also includes the brief review of previous research work.

Chapter-III: Research Methodology

The third chapter deals with the research methodology which has been followed to achieve the purposes of the study. It consists of research design, the period covered, nature and sources of data, tools to be used, research variable etc.

Chapter-IV: Data Presentation and Analysis

The fourth chapter deals with presentation and analysis of data. It gives a clear picture of how the collected data has been presented on the study and how it has been analyzed.

Chapter-V: Summary, Conclusion and Recommendations

And at last, the fifth chapter shows the summary of whole study, conclusion drawn and recommendations given. This ends the study paper.

Besides these chapters, Bibliography and Appendix are included in this research paper.

CHAPTER – II
REVIEW OF LITERATURE

2.1 Conceptual Framework

2.1.1 Capital Structure

"The term Capital denotes the long term funds of the firm. All of the items on the liabilities side of firms' balance sheet excluding current liabilities are source of capital. The total capital can be divided into two components: debt capital and equity capital. Debt capital includes all long term borrowing incurred by the firm, i.e. Debenture, bonds, long term loan, etc. and Equity capital consists of the long term fund provided by the firm's owners." (*Bearly, Stewart and Myers; 1985: 400)* In other words, equity capital includes common stock, paid in capital, reserve and surplus and retained earnings. "One should be clear about the key differences between two types of capital, relative to voice in management, claim on income and assets, maturity and tax treatment. Debt holders are preferred stockholders to not have voice in management. However, in default, they may receive a voice in management, otherwise only common stock holders have voting rights. Debt holders have a higher priority of claim against any earning or assets available for payment. Generally, life of debt capital is stated, but equity capital remains in the firm for an indefinite period of time. Tax can be saved in interest payment where as payment of dividend is non tax deductible expenditure. Tax must be paid before payment of dividend to the share holders. It should be clear that due to its secondary position (in income and assets) relative to debt suppliers of equity capital take greater risk and therefore must be compensated with higher expected return those suppliers of debt capital." *(Mathur; 1979: 242-243)*

"Capital structure refers to the combination of long term sources of fund, such as debentures, long term debt, preference shares capital and equity capital including reserves and surpluses. Capital structure represents the relationship

among different kinds of long term sources of capital and their amount. Normally a firm raises long term capital through the issue of common shares, sometimes accompanied by preference shares. The share capital is often supplemented by debt securities and other long term borrowed capital. In some cases, the firm accepts deposits. In a going concern, retained earnings or surpluses too form a part of capital structure, except for the common shares, different kinds of external financing, i.e. preference shares as well as the borrowed capital carry fixed return to the investors." *(Solomon; 1993: 87)* Financial structure refers to the compositions of all sources and amount of funds collected to use or invest in the business. In other words, "financial structure refers to the Capital and Liabilities side of balance sheet. Therefore, it includes shareholder's funds, long term loans as well as short term loans. It is different from capital structure as capital structure includes only the long term sources of financing while financial structure includes both long term and short term sources of financing. Thus a firm's capital structure is only a part of its financial structure." *(Keister; 2000: 68)*

2.1.2 Optimal Capital Structure

"The capital structure decision can influence the value of the firm through the cost of capital and trading on equity or leverage. 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. Optimal capital structure maximizes the value of the company and hence the wealth of its owners and minimizes the company's cost of capital. Thus, every firm should aim at achieving the optimal capital structure and then to maintain it." *(Korajczyk and Levy; 2003: 295)*

"The following considerations should be kept in mind while maximizing the value of the firm in achieving the goal of optimum capital structure:
    a. If the return on investment is higher than the fixed cost of funds, the company should prefer to raise funds having a fixed cost, such as

debentures, loans and preference share capital. It will increase earnings per share and market value of the firm. Thus, a company should make maximum possible use of leverage.

b. When debt is used as a source of finance, the firm saves a considerable amount in payment of tax as interest is allowed as a deductible expense in computation of tax. Hence, the effective cost of debt is reduced, called tax leverage. A company should, therefore, take advantage of tax leverage.

c. The firm should avoid undue financial risk attached with the use of increased debt financing. If the shareholders perceive high risk in using further debt-capital, it will reduce the market price of shares.

d. The capital structure should be flexible." *(McKinnon; 1996: 44)*

2.1.3 Checklist for Capital Structure Decision

A firm must consider the following factors, which have an important, though hard to measure, bearing on the choice of a target capital structure. *(Weston & Brigham; 1987: 619-623)*

a) **Sales Stability:** A firm whose sales are relatively stable can safely take on more debt and insure higher fixed charges then company with unstable sales. Utility companies, because of their stable demand, have historically been able to use more financial leverage than industrial firms.

b) **Asset Structure:** Firms whose assets are suitable as security for loan fend to use debt rather heavily. Thus real estate companies are usually highly leveraged, while companies involved in technological research employ less debt.

c) **Operating Leverage:** Other thing the same, a firm with less operating leverage is better able to employ financial leverage because as the

interaction of operating and financial leverage determines the overall of a dealing in sales on operating income and net cash flow.

d) **Growth Rate:** Other the same, faster growing firms must rely more heavily on external capital. Further, the flotation costs involved in selling common stock exceed those incurred in selling common stock exceed those incurred when selling debt. Thus, rapidly growing firms tend to use somewhat more debt than slower growing firms.

e) **Profitability:** One after observe that firms with very high rate of return on investment use relatively little debt. Although there is no theoretical justification for these facts, one possible explanation is that; very profitable firms such as IBM, Kodak, simply does not debt financing their high rates of return enable them to do most of their financing with retained earnings.

f) **Taxes:** Interest in deductible expenses, while divided is not. Hence the higher a firm's corporate tax rate, the greater the advantage of losing debt.

g) **Control:** The effect that debt or stock might have on a management's control position may influence its capital structure decision. If management have voting control (over 5% of the stock) but is not in a position to but any more stocks; it may chose debt for new financing. On the other hand, a management group that is not concerned about voting control may decide to use equity rather debt if the firm's financial situation is so weak that the use of debt might subject the firm to serious risk of default, if the firm gives into default, the manager will almost surely lose their jobs. However, if little debt is used, management runs the risk of a takeover control considerations do not necessarily suggest the use of debt or equity. The type of capital that best protects management will vary from situation to situation, but if management is at all insecure, it will take the effects of capital structure on control into account.

h) **Management Attitudes:** In the absence of proof that one capital structure will lend to higher stock prices than another, might be able to exercise its non judgment about a proper choice. Some management tends to be more conservative than others and thus use less debt than the average firm in their industry, while for other management the reverse is true.

i) **Lender & Voting Agency Attitudes:** Regardless of managers' own analyses of the proper leverage factors for their firms, there is no question but that lenders and rating agencies attitudes are frequently important determinants of financial structures. In the majority of cases the corporation discusses its financial structure with lenders and rating agencies and gives much weight to their advices. But when management is so confident of the future that it seeks to use leverage beyond the norms for its industry, lenders may be unwilling to accept such debt increases or may do so only at a high price.

j) **Market Conditions:** Conditions in the stock and bond markets undergo both long and short-run changes than can have an important bearing on a firm's optimal capital structure. For example, during the credit crunch in the winter of 1982, there was simply no market at any 'reasonable' interest rate for new long-term bonds rated below A. Therefore, low-rated companies that needed capital were forced to go to the stock market or to the short-term debt market, regardless of their target capital structures. Later financings might, however, bring the capital structure back to the target level.

k) **The Firm's Internal Condition:** A firm's own internal condition can also have a bearing on its target capital structure. For example, suppose a firm has just successfully completed on R & D program, and it projects higher earnings in the immediate future. However, the new earnings are yet anticipated by investors and hence are not reflected in the price of the stock.

This company would not want to issue stock-it would prefer to finance with debt until the higher earnings materialize and are reflected in the stock price, at which time it might want to sell an issue of common stock, retire that debt, and return to its target capital structure.

l) **Financial Flexibility:** It has been noted that from an events a lot more money from good capital budgeting and quantity decisions than they can from good financing decisions.

2.1.4 Capital Structure Planning

"Capital structure means all the sources through which a firm finances its operation. It includes long term debt sources and equity share capital. As raising capital from both debt and equity sources involve floatation cost, transaction cost, holding cost, thus to maximize and economize the use of funds, the capital structure planning is very essential. *(Omet and Nobanee; 2001: 53)*

Usually a finance manager plans the optimum capital structure that means selects the right proportion of debt and equity funds in the firm's capital structure. It assures value maximization. Besides, proper financing mix helps the firm to raise enough capital at the time of requirement.

Generally companies do not plan their capital structure. It occurs as the result of financial decisions taken by the financial manager. But it is necessary to plan because it helps and guides in using the available funds in possibly best way.

"Capital structure planning is made in order to obtain the optimum capital structure which is reflected by its market price of the share at the highest value. Determination of appropriate capital structure needs great consideration and involves formidable task. Number of factors influence capital structure decision which are highly psychological, complex and qualitative and do not follow the

accepted theory. So exploration of appropriate capital structure goes beyond the theory and such decisions should be taken under the imperfect market with risk." *(Michaelas; 1998: 183)*

"Capital structure is planned at the time of incorporation. While deciding about the proportions of debt and equity in the structure, the target capital structure should be considered as well because the items in present balance sheet decide the future balance sheet as well. Capital structure decision is the continuous one. It is made when the firm requires the fund. There are three common approaches to decide about a firm's capital structure." *(Michaelas; 1998: 185)*

A) EBIT-EPS Approach
This approach helps in analyzing the effect of debt on the earning per share of the firm.

B) Valuation Approach
This approach is used for analyzing the impact of debt on the shareholder's value.

C) Cash Flow Approach
This approach is used for analyzing the firm's ability to service debt and meet the maturing fixed obligation. It determines the solvency position of the firm.

2.1.5 Theory of Capital Structure
The optimum capital structure may be defined as the capital structure or combination of debt and equity that leads to the maximum value of the firm. In theory, capital structure can affect the value of a company by affecting either its expected earning or the cost of capital or both. The capital structure decision can influence the value of the firm through the earning available to the share holders. *(Khan & Jain; 2003: 111)*

- Net Income Theory

- Net Operating Income Theory

- Modigliani Miller Theory

- Traditional Theory

2.1.5.1 Net Income Theory

NI Theory to valuation is based on three assumptions. "First, there are no taxes; second, the cost of debt is less than of equity. Capitalization votes on the cost of equity: found that the use of debt doesn't change the risk perception of investors. That the financial risk perception of the investors doesn't change with the introduction of debtor change in leverage implies that due to change in leverage, there is no change in either the cost of debt or the cost of equity. The implication of the three assumptions under laying the NI Theory is that as the degree of leverage increases, the proportion of a cheaper source of funds that is debt in the capital structure increases. As a result, the weighted average cost of capital tends to decline, leading to an increase in the total value of the firm. Thus, with the cost of debt and cost of equity being constant, the increased use of debt (increase in leverage), will magnify the shareholder's earning and thereby, the market value of the underway shares." *(Pandey; 1992: 175)*

The financial leverage is, according to the NI Theory, an important variable to the capital structure of a firm. With a judicious mixture of debt and equity, firms can evolve the highest and the overall cost of capital is the lowest. At that structure, the market price per share would be maximum.

If the firm uses no debt or if the financial leverage is in zero, the overall cost of capital will be equal to the equity capitalization vote. The weighted average cost of capital will decline.

Capital Structure policy includes a trade off between risk and return, using more debt raises the riskiness of the firms' earning stream, but it also raises the

expected vote of return on equity. Higher risk tends to lower the stack's price, but a higher expected rate of return raises it. The optimal capital structure strikes that balance between risk and return which maximizes the price of the stock. This same optimal capital structure also minimizes the firm's overall cost of Capital.

2.1.5.2 Net Operating Income Theory

Another theory of capital structure is the net operating income (NOI) theory. This theory is dramatically opposite to the NI theory. The essence of this theory is that the capital structure decision of a firm is irrelevant. Any change in leverage will not lead to any change in the total value of a firm and the market price of shares as well as the overall lost of capital is independent of the degree of leverage. The NOI theory is based on the following propositions:

a. Overall Cost of Capital/Capitalization Role (K_0) is constant: The NOI theory to valuation argues that the overall capitalization rate of the firms remains constant, for all degrees of leverage. The value of the firm the level of EBIT is determined by:

$$V = EBIT / K0$$

In other words, the market evaluates the firm as a whole. The split of the capitalization between debt and equity is therefore not significant.

b. Residual value of Equity: The value of equity is a residual value which is determined by deducting the total value of debt (B) from total value of the firm (V). Symbolically,

Total market of equity capital (S) = V – B

c. Charges in Cost of Equity Capital: The equity-capitalization rate/cost of equity capital (K_e) increases with the degree of leverage. The increase in the proportion of debt in the capital structure relative to equity shares would tend

to and increases in the financial risk to the ordinary shareholders. To compensate for the increased risk, the shareholders would expect a higher rate of return on their investment. The increase in the equity, capitalization rate (or the lowering of the price earning ratio) would match the increase in the debt-equity ratio:

The K_e would be = $K_0 + (K_0 - K_i)$ x B/S

d. Cost of Debt: The cost of debt (K_i) has two parts: explicit cost which is represented by the rate of interest, irrespective of the degree of leverage, the firm is assumed to be able to borrow at a given rate of interest. This implies that the increasing proportion of debt in the financial structure does not affect the financial risk of the lenders and they do not penalize the firm by charging higher interest and another is implicit cost. As shown in the assumption relating to the changes in K_e, Increase in the degree of leverage in the proportion of debt tot equity causes an increase in the cost of equity causes an increase in the cost of equity capital. This increase in K_e, being attributable to the increase in debt, is the implicit part of K_i. Thus, the advantage associated with the use of debt, supposed to be cheaper sources of funds in terms of the explicit cost, is exactly neutralized by the implicit cost represented by the increase in K_e. As a result, the real cost of debt and the real cost of equity, according to the NOI theory, use the same and equal K_0.

The total value of the firm is unaffected by its capital structure. No matter what the degree of leverage is, the total value of the firm will remain constant. The market price of shares will also not change with the change in the debt equity ratio. There is nothing such as optimum capital structure. Any capital structure is optimum according to the NOI theory.

2.1.5.3 Modigliani Miller (MM) Theory

There are three basic proposition of the MM theory; the overall cost of capital (K_0) and the value of the firm (V) are dependent of its capital structure. The K_0

and V are constant for all degrees of leverage. The total value is given by capitalizing the expected stream of operating saving at a discount rate appropriate for its risk class.

The second proposition of the MM theory is that the K_e is equal to the capitalization rate of a pure equity stream plus a premium for financial risk equal to the difference between the pure equity capitalization rates (K_e) and (K_i) time the ratio of debt to equity. In other word, K_e increases in a manner to offset exactly the use of a less expensive source of funds represented by debt.

Third proposition of the MM theory is that the unit off rule for investment purpose is completely independent of the way in which an investment is framed. The proposition that the weighted average cost of capital is constant irrespective of the type of capital structure is based on the following assumption:

a) Perfect Capital Market: The implication of a perfect capital market is that
   - securities are infinitely divisible
   - investors are free to buy/sell securities
   - Investors can borrow without restrictions on the share terms and conditions as firm.
   - there are not transaction cost
   - information is perfect i.e. another investors has the same information which is readily available to him without cost
   - investors are rational and behave accordingly
b) Given the assumption of perfect information and rationally, all investors have the same expectation of firm's net operating income (EBIT) with which to evaluate the value of firm.
c) Business risk is equal among all firms within similar operating investments. That means all firms can be divided into equivalent risk class. The term

equivalent risk class means that the expected earnings have identical risk characteristics. Firms within and industry as assumed to have the same risk characteristics. The categorization of firms into equivalent risk class is on the basis of the industry group to which the firm belongs.

d) The dividend payment ration is 100%.

e) There are no taxes. This assumption is removed later.

2.1.5.4 Traditional Theory

Traditional theory is midway between net income and net operating income theory. It partakes of some features of both these theories. It is also known as the intermediate theory. It resembles the net income theory in arguing that cost of capital and total value of the firm are not independent of the capital structure. But it doesn't subscribe to the view (Of NI theory) that value of a firm will necessarily increase for all degree of leverage. In other respect it shares a feature with the net operating theory that beyond a certain degree of leverage, the overall cost of capital increases leading to a decrease in the total value of the firm. But it differ from the net operating theory in that is does not argue that the weighted average cost of capital is constant for all degree of leverage.

The crux of the traditional view relating to leverage and valuation is that through judicious use of debt equity proportion, a firm can increase its total value and thereby reduce its overall cost of capital. The rationale behind this view is that debt is a relatively cheaper source of funds as compared to ordinary shares. With a change in leverage, that is, using more debt in place of equity; a relatively cheaper source of funds replaces sources of funds which involve a relatively higher cost. Thus obviously causes a decline in the overall cost of capital. If the debt- equity ratio is raised further the firm would become financially more risky to the investors who would penalize the firm by demanding a higher equity capitalization rate. But the increase in equity capitalization rate may not be as high as to neutralize the benefit of

using cheaper debt. In other words, the advantages arising out of the use of debt is so large that, even after allowing for higher equity capitalization rate the benefit of the use the cheaper source of funds is still available.

If however, the amount of debt is increased further, two things are likely to happen, owing the increased financial risk, equity rate will record a substantial rate and the firm would become very risky to the creditors who also would like to be compensated by a higher return such that cost of debt will rise. The use of debt beyond a certain point will, therefore, have the effect of raising the WACC and conversely the value of the firm. Thus up to a point degree of leverage the use of debt will favorably affect the value of a firm; beyond that point use of debt will adversely affect it. At that level of debt-equity ratio, the capital structure is an optimal capital structure.

2.1.6 Profit & Profitability

"In business, profits are the excess of revenue over cost. In other words, business profits are the residual income, which is equal to sale proceeds minus costs. In a simple term, profits mean the residual balance of earning expected to be available with the firm that is obtained after deducting entire expenses, costs, charges and provision from total revenue of a period of time. Profit is the resources left to the firm for future growth and expansion or reward to be distributed to the entrepreneurship in the form of dividends." *(Richard; 1996: 80)*

2.1.7 Need for Profit

Profit is a must for the following reasons:

A) Measurement of Performance

"Profit is only one factor to measure the management efficiency, productivity and performance. Profit is the most widely used yardstick to see what really is to be achieved and where the firm is to go in the future." *(Saunders &*

Cornett; 2004: 61)

B) Premium to Cover Costs of Staying in Business

"Business environment is full of risks and uncertainties. To grasp the globally changing technologies, to stay in the market uncertainties, to replace and acquire assets and enhancing business scope etc. require a profit margin." *(Saunders & Cornett; 2004: 61)*

C) Ensuring Supply of Future Capital

"Profit is necessary to plough back in the investments like innovations, business expansion and self-financing. It also attracts investors for further investment." *(Mishkin; 1998: 26)*

D) Return to the Investors

"Shareholders provide equity capital to the business because they expect the entity will provide return to their funds at least equal or above market rate of return. To maintain the shareholders expectation, it is most important that a firm should earn sufficient profit so that it can distribute dividends." *(Mishkin; 1998: 26)*

2.1.8 Profitability of Commercial Banks

"Unlike in any other organizations, there are various forms of stakeholders in the Bank. So, the bank also has to make the best efforts to meet the interests of the stakeholders. The majority of the needs of the stakeholders are related with the profitability of the banks. For example, in case the bank earns profits, the investors get dividends, employees get bonus, government gets benefits in forms of taxes etc. Thus, the foremost objective of the banks is the profit maximization.

The major source of funds of the bank is the public deposit. The bank in most of the cases has to pay certain rate of interest to the public in their deposit.

Thus, the banks have to mobilize these funds in the profitable sectors, which derive maximum return on the assets. Hence, the investment or granting of loan and advances by them are highly influenced by profit margin. The profit of the bank is dependent on the interest rate, volume of loan and time period of loan. However, the bank at the same time has to ensure that their investment is safe from default.

Although the banks have to invest in order to earn profits. But, at the same time have to set aside some of its fund in order to maintain their liquidity. As the major source of bank's fund is public deposits, the bank has to be able to allow the depositors to withdraw their deposit in terms of need. Thus, the bank cannot invest all its funds in the profitable sectors. Thus, a successful bank is one who invests most of its funds in different earning asset standing safely from the problem of liquidity i.e. keeping cash reserves to meet the daily requirements of the depositors. Lower the liquidity, higher the profitability and higher the liquidity, lower the profitability. So, profitability and liquidity maintain a highly negative co-relation. Since both are equally important, banks cannot afford to ignore any of them. So, the management has to make a crucial decision regarding a mixture of liquidity and profitability." *(William; 1990: 32-34)*

2.1.9 Theories of Profit
Economists have propounded several theories of profits to explain profits of entrepreneurs. Most of the theories are centered on the controversy about the role of the entrepreneur. In the following section some of the fundamental theories of profit has reviewed in brief.

A) Theory of Risk and Uncertainty Bearing
It was F.B. Hawley who first developed the theory of risk bearing and concluded that profit is a reward of the entrepreneurs for bearing risks. But, the theory was picked up by Professor F.H. Knight who divided risks into

insurable and non-insurable risks and concluded that profit is a reward for bearing non-insurable risks and uncertainties. Thus according to Knight, profit is a reward to the entrepreneur for his non-transferable function of bearing non- insurable risk and uncertainties.

B) Dynamic Theory of Profit

This theory was propounded by J.B. Clark. According to this theory, 'dynamic changes' in the economy are the basic causes of emergence of profits. There is no profit in a static economy as no changes take place. In a dynamic economy there are constant changes in population, capital, methods of production and industrial set up. These changes multiply wants of consumers, which earn profits to the entrepreneur.

C) Innovation Theory of Profits

Joseph Schumpeter singled out 'innovation' form the dynamic theory of profits and developed the innovation theory of profits. According to Schumpeter changes take place in a dynamic economy and innovation in the changing world gives rise to profits. In his vies, the entrepreneur plays an important role of introducing innovation in an economy and profits are the rewards for his role as an innovator. The innovation could be changes or techniques that reduces cost of production or increases demand for the product.

2.2 Review of Journals and Articles

Mesquita & Lara (2006), in their article *"Capital Structure and Profitability: The Brazilian Case",* have shown a great dispersion among the several capital sources used by the Brazilian companies, exception to the equity, the main component, and the one that presents smaller variability. As to the relationship between return rates and debt, the results indicate inverse relationship for the long run financing, and direct relationship for short-run financing and equity.

The facts of the most lucrative companies are the ones with lowest debt are in consonance with other empiric evidences. However the low debt level, when compared to the debt level of more developed economies, such as United States, Japan, Germany and United Kingdom, indicates that the Brazilian companies are using debt in a extremely conservative way. Perhaps the high interest rates practiced at the Brazilian market, the instability of the exchange rate politics and remaining atmosphere of uncertainty of the local economy which conveys operational and financial risks that hinder the managerial planning and inhibit the adoption of more sophisticated debt politics can explain that fact.

Raheman, Zulfiqar and Mustafa (2007), in their article, *"Capital Structure and Profitability: Case of Islamabad Stock Exchange",* have stated that firstly there is negative relationship between the long term debt and profitability verifying first hypothesis, which means that firms with having more long term debt are less profitable. This can be attributed to the interest cost bear by the company for a long term debt financing, which increase the fixed costs of the product and resultantly decrease the profitability. Secondly numeric verifications and statistical analysis shows negative relationship between net operating profitability and debt ratio.

Thirdly the relationship of profitability with percentage of equity in the total financing has direct relationship meaning thereby more equity leads to more profits. Fourthly size with profitability numerical calculations have accepted that with the increase in size of the firm the profitability increases. The study has taken the N-log of sales as proxy for growth in size and the increase in sales result in more profits.

Driffield & Pal (2008), in their article, *"Evolution of Capital Structure in East Asia: Corporate Inertia or Endeavors?"* have stated that many firms in the worst affected countries indulged in some reckless capital structure behavior.

There is evidence that firms in the worst affected countries not only have higher leverages (being the result of high debt even in a situation of deteriorating assets), but also tend to have lower speed of adjustment than their counterparts in the least affected countries. This general ranking is robust to various alternative specifications and sample selections.

The case of Malaysia is particularly interesting in this context: while by virtue of its rigorous institutional and legal environment and also access to market based finance, the country was successful to restrict leverages to a generally lower level, it was not so successful to ensure speedy adjustment of capital structure and was among the worst affected countries hit by the crisis. This analysis also identifies some important adjustment mechanisms: (a) adjustment speeds are greater for larger firms and firms in the top leverage quartile who tend to have access to cheaper credit, as reflected in a comparison of effective interest rates. (b) Firms with more cash flow tend to have faster speed of adjustment. (c) Firms with only long-term debt however have lower speed of adjustment. (d) Firms in countries with tighter regulations and access to equity finance tend to have lower leverage and higher speed of adjustment (with the exception of Malaysia). (e) In general financially distressed firms in most countries tend to have higher speed of adjustment, revealing cases of sudden adjustment; the latter is especially evident in the post-crisis period, highlighting the fact that lessons have been learnt after the crisis.

Abor (2008), in his article, *"Determinants of the Capital Structure of the Ghanaian Firms",* has examined the determinants of capital structure decisions of publicly quoted firms, large unquoted firms and SMEs in Ghana. Publicly quoted and large unquoted firms were found to have higher debt ratios than SMEs. Overall, listed and unquoted firms exhibit different financing behavior from that of SMEs. Short term debt constitutes a relatively high proportion of total debt of Ghanaian firms.

Listed firms are better positioned to raise equity finance from the stock market, and large unquoted firms are also able to access equity finance from institutional investors usually through private placements. Firm size was found to have a positive relationship to short-term debt ratio of SMEs and debt ratios of quoted firms, but negative with respect to long-term debt ratio in the case of unquoted firms. The results of this study seem to support the pecking order hypothesis, given that both long-term and short-term debts have inverse associations with profitability in all the sample groups. Firm growth was found to have a positive association with long-term debt for the unquoted firms' sample and short-term debt ratio for SMEs. Limited liability companies are more likely to obtain long-term debt finance relative to sole-proprietorship businesses.

The issue of capital structure is an important strategic financing decision that firms have to make. Clearly, the pecking order theory appears to dominate the Ghanaian capital structure story. It is therefore important for policy to be directed at improving the information environment.

Frank and Goyal (2008), in their article, *"Profits and Capital Structure",* have stated that the empirical relationship between profits and corporate use of debt finance has been widely misinterpreted. More profitable firms tend to issue more debt and they tend to repurchase equity. Firm size matters. Larger firms tend to be more active in the debt markets while smaller firms tend to be more active in the equity markets.

However, there is a particular group of firms that has had a big influence on the common rejection of the trade-off theory. Large, low-profit firms typically have high debt levels and they often increase their debt by quite a bit despite their low profit status. Further, these firms experience an even larger increase in the market value of their equity. Apparently, the market is expecting significant future profits from these firms despite low current profits. Thus, if

the market is correct on average, the debt issuance by these firms may not be so surprising.

Overall, the empirical evidence on issuance seems rather easy to understand from the perspective of the static trade-off theory. Firms with more profits are less likely to issue equity, and more likely to repurchase equity. Firms with more profits do tend to issue debt. Market conditions also seem to have a fairly natural effect on issuance. The effect of bad market conditions is particularly strong on small and low-profit firms. Larger firms and more profitable firms are less strongly affected.

Mahmood and Zakaria (2009), in their article, *"Profitability and Capital Structure of the Property and Construction Sectors in Malaysia",* have assessed the profitability and capital structure among property developers and contractors in Malaysia. The study uses a sample of 25 property companies and 20 construction companies for a period of eight years from 2000 through 2008.

The study provides insight into the performance of property developers and contractor's profitability and factors impacting capital structure decisions of these firms to the Malaysia economy. Thus, the key contributions of the study were to explore and expand on existing literature from a Malaysian perspective. The study presented that the developers in Malaysia are larger and more profitable compared to contractors' counterparts. This is because their capital gearing and debt equity ratio are less than those of contractors. Further, contractors are heavily burden with debt and the need to service this debt is very high and thus, this led to low pre-tax profit margin as well as profit margin. The results from the regression analysis indicate that capital gearing is negatively related with net profit margin and price earning ratio for both property and construction sectors. The simple argument for the result is that the high gearing firms have to service their large amount of debt which in turn will reduce their profit margin and PE ratio, regardless of sector size.

Hutchison and Cox (2010), in their article, *"The Causal Relationship Between Bank Capital and Profitability",* have demonstrated that for banks in the U.S. there is a positive relationship between financial leverage and the return on equity for both the 1996-2002 and the 2003-2009 periods. Furthermore, the proportionality of financial leverage to return on equity appears to have been more or less maintained between the later more regulated time period as opposed to the earlier freer period.

Moreover, when viewing the return on assets relationship a similar pattern as the return on equity to capital relationship is observed. That is, ROA is inversely related to financial leverage. Again, there seems to be a dearth of evidence to sustain the notion that the 1996-2002 period is different than the 2003-2009 period. Bank performance has been robust to the regulatory environment that they have faced.

2.3 Review of Thesis

Subedi (2004), in his study, *"Capital Structure and Cost of Capital",* has the main objective of analyzing the capital structure and cost of capital of the selected companies. The other specific objectives of the study are;

    a. To study the profitability position.
    b. To assess the debt servicing capacity.

The major findings of the study are;

    a. The return on equity is constantly decreasing for all companies throughout the years; the cost of capital has not followed the capital structure theories.
    b. The banks followed moderate capital structure whereas the insurance companies practiced conservative capital structure.
    c. The profitability position of the banks were comparatively higher than that of insurance companies.

Basnet (2005), in his study, *"Capital Structure and the Cost of Capital of Nepalese Listed Companies",* has the main objective to examine the capital structure and the cost of capital of the sampled companies. The other specific objectives were as follows:

a. To test the relationship between the cost of capital and capital structure.
b. To examine the relationship between the cost of equity and capital structure of selected listed companies.

The major findings of the study are;

a. The regression coefficient of leverage against cost of capital was negative on manufacturing and trading sector and positive on banking and finance sector.
b. In addition, the t-value showed the beta coefficient was not statistically significant in both sectors.
c. There were not strong enough to establish relationship between cost of capital and capital structure and with other exploratory variables.

Kansakar (2007), in his study, *"Capital Structure of Joint Venture Banks of Nepal",* has the main objective to analyze, examine and interpret the capital structure of selected three Joint Venture Banks. The specific objectives of the study are;

a. To examine the solvency position of joint venture banks under study
b. To evaluate the effect of capital structure on profitability of Joint venture banks under study
c. To analyze the capital structure of sample banks
d. To analyze the comparative capital structure of selected JVBs

The major findings of the study are;

a. All JVBs has used high percentage of total debt in raising the assets and finance its activities. There is the highest ratio of the outsiders' claim in total assets than that of the owner's claim. The implication of higher

outsiders' fund is computed as debt ratio analysis. In an average the highest debt ratio belongs to Standard Chartered Bank of 93.29% which means that it is exposed to the greatest financial risk.

b. All the JVBs under study show the highest portion of debt in their capital structure. So they constantly face the burden of huge interest payments. The analysis shows that Standard Chartered Bank has the highest interest coverage ratio of 3.04 times on an average which indicates that it has been successful in generating sufficient income though the utilization of leverage. The lowest belongs to Himalayan bank of 1.71 times.

c. The ROA computed for the selected banks depicts the exact utilization of assets made by them. In comparison to all the other banks, Standard Chartered bank has the highest ROA which means that it is successful in the utilization of assets to generate more efficiency.

d. The results obtained through ROE calculation of all the selected JVBs shows the positive reflection of their efficiency of providing satisfactory returns to their shareholders. Standard Chartered bank has the highest ROE of 36.76% which means its capacity to utilize the shareholder's equity in an efficient way. All other remaining bank also shows the satisfactory result though the lowest ROE belongs to Himalayan Bank.

Simkhada (2009), in his study, *"Capital Structure of Nepalese Enterprises",* has the main objective of the study is to analyze the behavior of the capital structure of the selected manufacturing companies of Nepal. The other specific objectives of the study are;

a. To find out the capital structure of the sample companies.

b. To measure the relationship between debt and equity capital.

c. To examine the relationship of leverage with different financial ratios.

The major findings of the study are;

a. Average debt to total assets ratio of UNL is 51.33%, NLOL is 66.33% and DNPL is 74%. 74% ratio of DNPL inidicated that 74% of the assets have been acquired by creditor' fund and the contribution of shareholder's was only 26%.

b. Generally, 70% long term to total debt is preferable but both NLOL and DNPL have almost 37% average ratio shows unsatisfactory condition. Since NLOL has not employed long term debt for few years and UNL has not used it in whole sampled years, they are unlevered frims.

c. DNPL has greatest interest-coverage ratio, which is 2.46 times. In the last three years of time, there is not interest charged by NLOL because they have not employed long-term debt. UNL has also zero interest charged, as it is also unlevered firm. But DNPL has good debt service capacity in spite of high burden of interest.

d. The ROSE indicated that NLOL has least ratio, i.e. 13.33% , and the ROSE in UNL is highest, i.e. 29.83%. The shareholders of DNPL have the higher risk although earning of DNPL's shareholders is lower, i.e. 26.33%.

2.4 Research Gap

All of the above studies reviewed have concentrated mainly on how the capital structure should be, or how much the company should earn the profit, but none of the theses have put effort to find out the relationship between capital structure and profitability. To fulfill such gap, the present study has been conducted to illuminate the impact of capital structure on profitability, along with the capital structure of the bank, its solvency position, the profitability position and cost of capital.

CHAPTER – III
RESEARCH METHODOLOGY

3.1 Research Design

Research design is a formal plan of action for a research project. Research designs help researchers to lay out their <u>research questions</u>, methodologies, implementation procedures, and data collection and analysis for the conduct of a research. Generally there are three types of research design: <u>quantitative design</u>, <u>qualitative design</u>, and <u>mixed methods design</u>. For the study, the mixed methods design has been adopted, as the quantitative design is adopted for secondary data and qualitative design has been adopted for primary data.

3.2 Population and Sample

At present, 28 commercial banks are operating in the country. However, the analysis of all these commercial banks in terms of capital structure and its impact on profitability will be onerous to conduct. So taking this numbers as the population of the study, only two commercial banks; namely Nepal SBI Bank Limited (NSBL) and Everest Bank Limited (EBL), have been taken as the sample of the study.

3.3 Nature and Sources of Data

For the study both primary and secondary data analyses have been done. The primary data has been collected through questionnaire method. While the secondary data have been collected through the annual reports and official websites of NSBL, EBL, and NRB. Besides these, the brochures, journals and articles and others have been also extensively used as the secondary source.

3.4 Tools Used

To achieve the objectives of the study, both financial and statistical tools have been used;

3.4.1 Financial Tools

Under the financial tools, mainly the capital structure, solvency position, profitability and cost of capital of the banks have been measured.

A) Capital Structure

It is a mix of a company's long-term debt, specific short-term debt, common equity and preferred equity. The capital structure is how a firm finances its overall operations and growth by using different sources of funds.

Debt comes in the form of bond issues or long-term notes payable, while equity is classified as common stock, preferred stock or retained earnings. Short-term debt such as working capital requirements is also considered to be part of the capital structure.

i) Debt-Equity Ratio

This ratio measures company's financial leverage. Debt/equity ratio is equal to long-term debt divided by common shareholders' equity. Investing in a company with a higher debt/equity ratio may be riskier, especially in times of rising interest rates, due to the additional interest that has to be paid out for the debt. It is important to realize that if the ratio is greater than 1, the majority of assets are financed through long term debt. If it is smaller than 1, assets are primarily financed through equity.

$$Debt - Equity\ Ratio = \frac{Long\ Term\ Debt}{Total\ Equity\ Capital}$$

ii) Long Term Debt to Total Debt

This ratio computes the proportion of a company's long-term debt compared to its total debt. By using this ratio, investors can identify the amount of leverage utilized by a specific company and compare it to others to help analyze the company's risk exposure. Generally, companies that finance a

greater portion of their total debt via long term debt are considered less riskier than those which finances through short term debt.

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

iii) Debt ratio

The debt ratio compares a company's total debt to its total assets, which is used to gain a general idea as to the amount of leverage being used by a company. A low percentage means that the company is less dependent on leverage, i.e., money borrowed from and/or owed to others. The lower the percentage, the less leverage a company is using and the stronger its equity position. In general, the higher the ratio, the more risk that company is considered to have taken on.

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

B) Solvency ratio

The solvency ratio measures the size of a company's after-tax income; excluding non-cash depreciation expenses, as compared to the firm's total debt obligations. It provides a measurement of how likely a company will be to continue meeting its debt obligations.

i) Current Assets to Short Term Debt

The ratio is mainly used to give an idea of the company's ability to pay back its short-term liabilities (debt and payables) with its short-term assets (cash, inventory, receivables). The higher the current ratio, the more capable the company is of paying its obligations. A ratio under 1 suggests that the company would be unable to pay off its obligations if they came due at that point. While this shows the company is not in good financial health, it does not necessarily mean that it will go bankrupt - as there are many ways to access financing - but it is definitely not a good sign.

$$\text{Current Assets to Short Term Debt} = \frac{\text{Current Assets}}{\text{Total Short Term Debt}} \times 100$$

ii) **Interest Coverage Ratio**

The interest coverage ratio is used to determine how easily a company can pay interest expenses on outstanding debt. The ratio is calculated by dividing a company's earnings before interest and taxes (EBIT) by the company's interest expenses for the same period. The lower the ratio, the more the company is burdened by debt expense. When a company's interest coverage ratio is only 1.5 or lower, its ability to meet interest expenses may be questionable.

$$\text{Interest Coverage Ratio} = \frac{\text{EBIT}}{\text{Interest on Borrowed Capital}}$$

C) **Profitability Ratios**

It is a class of financial metrics that are used to assess a business's ability to generate earnings as compared to its expenses and other relevant costs incurred during a specific period of time. For most of these ratios, having a higher value relative to a competitor's ratio or the same ratio from a previous period is indicative that the company is doing well.

i) **Earning Per Share**

Earning per share serves as an indicator of a company's profitability. It is the portion of a company's profit allocated to each outstanding share of common stock. An earning per share is generally considered to be the single most important variable in determining a share's price. It is also a major component used to calculate the price-to-earnings valuation ratio.

$$\text{Earnings per Share} = \frac{\text{Net Profit after Tax} - \text{Dividend paid on Preference Share}}{\text{No. of Common Outstanding Shares}}$$

ii) **Return on Equity**

The return on equity is the amount of net income returned as a percentage of shareholders equity. Return on equity measures a corporation's profitability by

revealing how much profit a company generates with the money shareholders have invested.

$$ROE = \frac{NPAT}{Equity\ Capital} \times 100$$

iii) Return on Assets

Return on asset is an indicator of how profitable a company is relative to its total assets. ROA gives an idea as to how efficient management is at using its assets to generate earnings. Calculated by dividing a company's annual earnings by its total assets, ROA is displayed as a percentage. Sometimes this is referred to as 'return on investment'.

$$ROA = \frac{NPAT}{Total\ Assets} \times 100$$

iv) Return on Total Deposit

Return on total deposit ratio measures how efficiently the deposits have been mobilized. It reveals the relationship between net profit after tax and total deposits.

$$ROD = \frac{NPAT}{Total\ Deposits} \times 100$$

D) Cost of Capital

The cost of capital determines how a company can raise money (through a stock issue, borrowing, or a mix of the two). This is the rate of return that a firm would receive if it invested in a different vehicle with similar risk. Low the cost of capital tends better capital structure of the firm.

$$Cost\ of\ Capital\ (Ko) = \frac{EBIT}{Value\ of\ the\ Firm} \times 100$$

3.4.2 Statistical Tools

The following statistical tools have been extensively used to analyze the secondary data collected;

A) Arithmetic Mean

"Arithmetic mean is the number which is obtained by adding the various numbers of all the items of a series and dividing the total by the number of items. Arithmetic mean is a useful tool in statistical analysis.

The most popular and widely used measure of representing the entire data by one value is what most laymen call an average and what the statisticians call the arithmetic mean." *(Gupta; 2000: 180)*

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

Where,

$\bar{X} =$ Arithmetic Mean

$\sum X =$ Sum of Elements

$N =$ Number of Observations

B) Standard Deviation

"The standard deviation measures the absolute dispersion, the greater the standard deviation the greater will be the magnitude of the deviation means a high degree of uniformity of the observation as well as homogeneity of a series and a large standard deviation means just the opposite. Standard deviation is extremely useful in judging the representativeness of the mean." *(Gupta; 2000: 283)*

$$S.D. = \sqrt{\frac{\sum(X - \bar{X})^2}{N}}$$

C) Coefficient of Variation

Coefficient of variation is the relative measure of dispersion. Coefficient of variation is the percentage variation in means standard deviation being considered as the total variation from the mean.

$$\text{Coefficient of Variation (C. V.)} = \frac{S.D.}{\overline{X}} \times 100$$

D) Correlation Coefficient

It is a useful statistical tool for measuring the intensity of the magnitude of linear relationship between two variables. The most important method of measuring the correlation between the two variables is "Karl person's coefficient of correlation. "If the values of the variables are directly proportional then the correlation is said to be positive. On the other hand, if the values of the variables are inversely proportional, then the correlation is said to be negative. The correlation coefficient always remains within the limit of +1 to -1. The correlation coefficients (r) between two variables X and Y can be obtained by using following formula." *(Gupta; 2002: 541)*

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

Where,

r = The correlation coefficient between two variables of X and Y

Proprieties:

a) It lies between -1 and +1

b) If r = +1, then there is perfect positive correlation.

c) If r = -1, then there is perfect negative correlation.

d) If r = 0, then there is no correlation.

e) If r = 0.7 to 0.99 (or- 0.7 to -0.99) then there is high degree positive or negative correlation.

E) Probable Error

The probable error denoted by P.E. is used to measure the reliability and test of significance of correlation coefficient. Significance of relationship has been tested by using the probable error (P.E.) and it is denoted by the following model:

$$\text{Probable Error (P.E.)} = 0.6745X\frac{1 - r^2}{\sqrt{n}}$$

Where, r = the value of correlation coefficient

n = number of pairs of observations

if r < P.E., it is insignificant, i.e. there is no evidence of correlation.

if r > 6 P.E., it is significant.

if P.E. < r < 6 P.E., nothing can be concluded.

F) Regression Lines

The regression line is the line, which gives the best estimate of one variable for any given value of the other variable. In case of two variables X and Y, we will have two regression lines i.e. lines is called the regression equation and also estimating equations. Since there are two regression lines, there are two regression equations.

Regression equation of Y on X

The regression equation is expressed as;

y = a + bx

We shall get the normal equation for estimating "a" and "b" as.

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

$\sum XY = a\sum Y + b \sum Y^2$

Where,

X = the value of independent variable

40

Y = the value of dependent variable

a = Y-intercept

b = slope of the trend line/coefficient of regression

N = number of pairs of observations.

G) Trend Analysis

An aspect of technical analysis that tries to predict the future movement of a stock based on past data. Trend analysis is based on the idea that what has happened in the past gives traders an idea of what will happen in the future. Let the trend line between the dependent variable y and the independent variable x (i.e. time) be represented by;

$$Y_c = a + bx$$

Where,

a = y intercept or value of y, when x = 0

b = slope of the trend line or amount of change that comes in y of a unit change in x.

The following equations should be solved, to find the value of x and y;

$$\sum y = na + b\sum x$$
$$\sum xy = a\sum x + b\sum x^2$$

CHAPTER – IV

DATA PRESENTATION AND ANALYSIS

4.1 Secondary Data Analysis

Under this section, the capital structure of the banks, the solvency of banks to pay the debt, the profitability and cost of capital of the banks, and the effect of capital structure on profitability of the bank have been measured.

4.1.1 Capital Structure of Banks

A bank needs to have strong capital structure to augment the profitability of the banks. Debt and equity capital are the components of the capital structure of the bank, and thus a bank needs to adopt good composition of these components.

4.1.1.1 Debt-Equity Ratio

The debt-to-equity ratio is a financial ratio indicating the relative proportion of shareholders' equity and long term debt used to finance a company's assets. The two components are often taken from the firm's balance sheet or statement of financial position.

Table 4.1

Debt-Equity Ratio   **(Ratio in Times)**

FY	NSBL			EBL		
	LTD	SE	D/E	LTD	SE	D/E
2004/05	469.63	689.02	0.68	300.00	832.62	0.36
2005/06	812.43	982.38	0.83	300.00	962.81	0.31
2006/07	1015.37	1163.29	0.87	300.00	1201.52	0.25
2007/08	1827.48	1414.65	1.29	300.00	1921.24	0.16
2008/09	927.47	1712.61	0.54	612.00	2203.62	0.28
Mean			**0.84**			**0.27**
S.D.			**0.25**			**0.07**

| C.V.%			29.99			25.19

The table enlightens that the usage of long term debt amount in NSBL is in increasing trend, except in the fiscal year 2008/09, which means that the bank is depending more on outside fund in each fiscal year in financing the total assets. The long term debt of the bank has increased from Rs. 469.63 millions in the fiscal year 2004/05 to Rs. 1827.48 millions in the fiscal year 2007/08. Similarly, the shareholders' equity of NSBL has ranged from Rs. 689.02 millions in the fiscal year 2004/05 to Rs. 1712.61 millions in the fiscal year 2008/09. With regard to the trend of both these variables, the debt equity ratio of the bank has increased for the first four fiscal years and thus has ranged from 0.68 times in the fiscal year 2004/05 to 1.29 times in the fiscal year 2007/08, while in the fiscal year 2008/09, it is 0.54 times. The debt equity ratio clarifies that in each fiscal year the usage of equity capital is greater than the usage of long term debt capital. Nonetheless, in average the debt equity ratio of the bank is 0.84 times and the variation in the ratio is 29.99%, indicating quite inconsistency.

While in EBL, it has been observed that the bank has not increase its long term debt till 2007/08, and thus limited it to Rs. 300 millions, and eventually the long term debt has been increased to Rs. 612 millions in the fiscal year 2008/09. However, it is obtrusive in the increase in equity capital of the bank. The adoption of conservative policy in financing the total assets has resulted the debt equity ratio of the bank below 1 time. In highest, the debt equity ratio is 0.36 times in the fiscal year 2004/05 and in lowest, the debt equity ratio of EBL is 0.16 times in the fiscal year 2007/08. In average, the debt equity ratio of the bank is 0.27 times, and the coefficient of variation is 25.19%.

Comparing the banks on the basis of the debt equity ratio, it can be assumed that NSBL is more risk taker than EBL. Since, the debt equity ratio of NSBL is

greater than that of EBL, and as a result the capital structure of NSBL is more dominated by the debt capital percentage than in EBL.

Figure 4.1

Debt-Equity Ratio
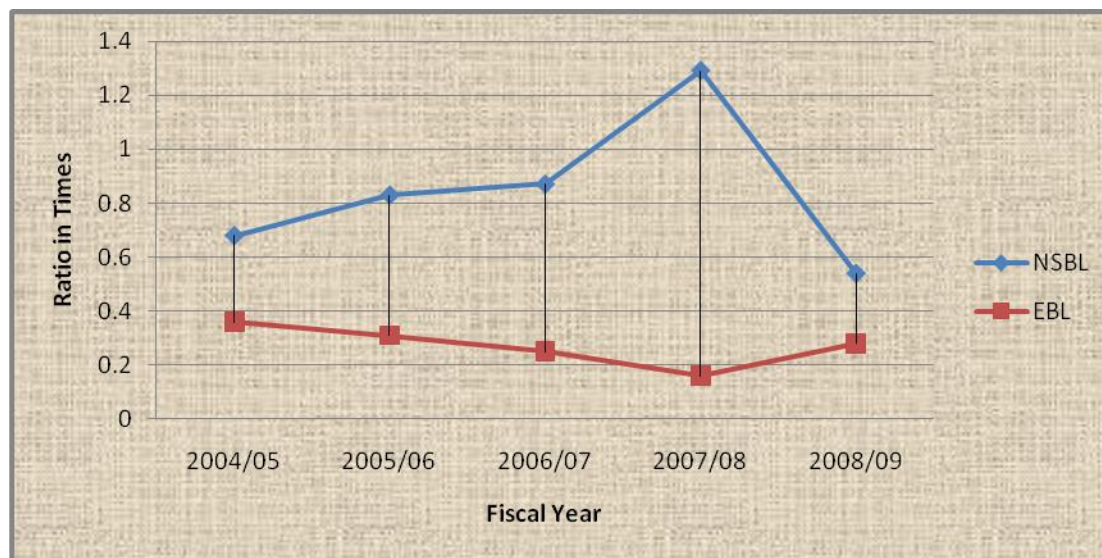
4.1.1.2 Long Term Debt to Total Debt

Debt capital should be limited up to a level, which the earning capacity of the firm can support. Otherwise, the company has to sell its assets and be forced to go into liquidation. The ratio of long term debt to total debt indicates what percentage of company's total debts is included in the form of long term debt.

Table 4.2

Long Term Debt to Total Debt   **(Ratio in %)**

FY	NSBL			EBL		
	LTD	**TD**	**Ratio**	**LTD**	**TD**	**Ratio**
2004/05	469.63	9656.35	4.86	300.00	10899.90	2.75
2005/06	812.43	12053.46	6.74	300.00	14996.47	2.00
2006/07	1015.37	12737.91	7.97	300.00	20231.05	1.48
2007/08	1827.48	15772.80	11.59	300.00	25228.10	1.19
2008/09	927.47	29204.08	3.18	612.00	34713.21	1.76
Mean			**6.87**			**1.84**

44

|					
S.D.			**2.87**			**0.53**
C.V.%			**41.77**			**28.95**

The ratio in the table emblazons that both bank has the practice of borrowing long term debt extremely very lower than the short term debt to meet the fund requirement. The ratio of long term debt to total debt of NSBL has though increased in paltry up to the fiscal year 2007/08, i.e. from 4.86% in the fiscal year 2004/05 to 11.59% in the fiscal year 2007/08, and finally it has decreased to 3.18%. In average, long term debt has only met 6.87% of the total debt finance of the bank, and other 93.13% of the debt has been covered by short term debt.

In contrast to NSBL, the ratio of long term debt to total debt of EBL has decreased in the first four fiscal years, i.e. from 2.75% in the fiscal year 2004/05 to 1.19% in the fiscal year 2007/08, and then it has slightly increased to 1.76% in the fiscal year 2008/09. However, the practice of meeting the fund requirement of the bank has been increased in each fiscal year, as a result the total debt of the bank has increased from Rs. 10899.90 millions in the fiscal year 2004/05 to Rs. 34713.21 millions in the fiscal year 2008/09. In average, EBL has met 1.84% of the total debt fund financing through long term debt, and 98.16% of the total debt through short term debt.

On the basis of the long term debt to total debt, it has been ascertained that EBL is more risk taking than NSBL, since the usage of short term debt in total debt is higher in EBL, and thus ultimately the short term debt carries higher risk than long term debt.

Figure 4.2

Long Term Debt to Total Debt
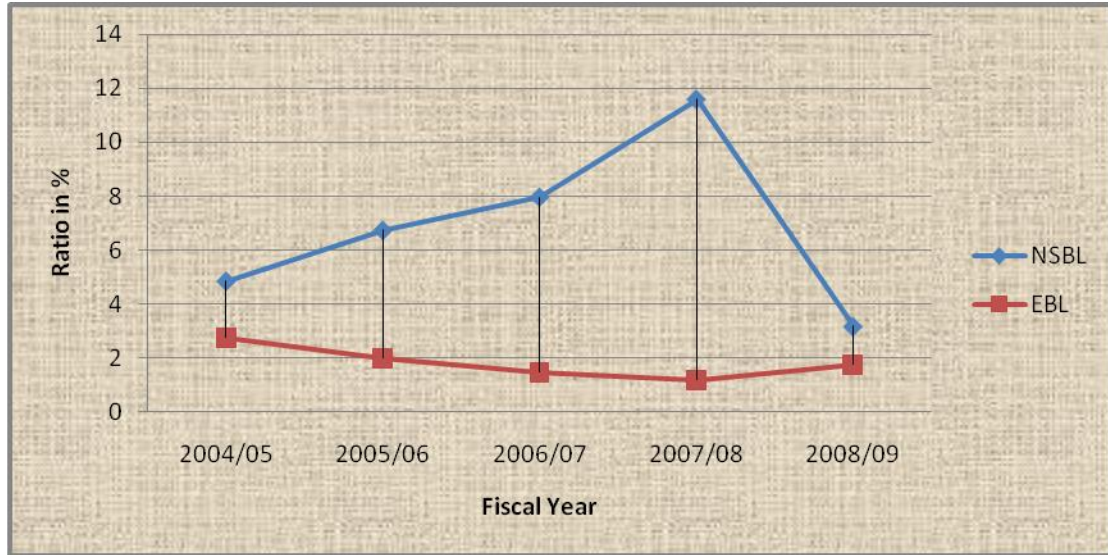
4.1.1.3 Debt Ratio

Debt Ratio is a financial ratio that indicates the percentage of a company's assets that are provided via debt. It is the ratio of total debt (the sum of current liabilities and long-term liabilities) and total assets (the sum of current assets, fixed assets, and other assets such as 'goodwill').

Table 4.3

Debt Ratio   **(Ratio in %)**

FY	NSBL			EBL		
	TD	**TA**	**Ratio**	**TD**	**TA**	**Ratio**
2004/05	9656.35	10345.37	93.34	10899.90	11732.52	92.90
2005/06	12053.46	13035.84	92.46	14996.47	15959.28	93.97
2006/07	12737.91	13901.20	91.63	20231.05	21432.57	94.39
2007/08	15772.80	17187.45	91.77	25228.10	27149.34	92.92
2008/09	29204.08	30916.69	94.46	34713.21	36916.83	94.03
Mean			**92.73**			**93.64**

46

| S.D.			1.06			0.61
C.V.%			1.14			0.66

The practice of financing the total assets through debt capital has decreased in NSBL for the first three fiscal years, i.e. from 93.34% in the fiscal year 2004/05 to 91.63% in the fiscal year 2006/07, and then it is slightly increased from the fiscal year 2007/08 onward, and thus it has finally reached to 94.46% in the fiscal year 2008/09. In average, 92.73% of the total assets of the bank has been financed through total debt, indicating greater risk taking attitude of the bank, and the variation in the ratio is just 1.14%, indicating high stability.

Unlike in NSBL, the debt capital to total assets of EBL has increased for the first three fiscal years, i.e. from 92.90% in the fiscal year 2004/05 to 94.39% in the fiscal year 2006/07, and then it has decreased to 92.92% in the fiscal year 2007/08, and finally it has increased to 94.03% in the fiscal year 2008/09. In average, 93.64% of the total assets of EBL has been financed through debt capital with the variation of 0.66% in the ratio.

Eventually, it has been derived from the analysis that the total assets of each bank bears greater risk. More specifically, the total assets of EBL is slightly risky than that of NSBL, since the debt coverage is slightly greater in EBL than in NSBL.

Figure 4.3

Debt Ratio
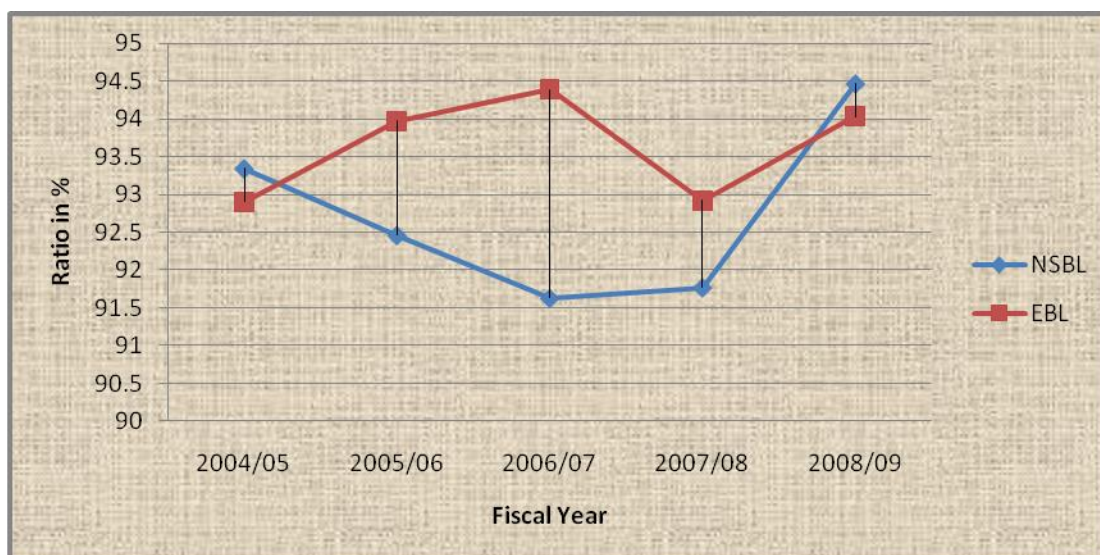
4.1.2 Solvency Position of Banks

Solvency position delineates the capability of the bank to meet the short term debt that it has borrowed for financing the current assets. Under this, the current assets to short term debt and interest coverage ratio of the banks have been measured.

4.1.2.1 Current Assets to Short Term Debt

Funds raised from sources of short term financing should not be used to acquire fixed assets like land and building, plant and machinery, furniture, vehicles etc. it is used to increase level of current assets and to increase working capital. Thus, the bank should be in good solvency position to meet such short term debt repayment.

Table 4.4

Current Assets to Short Term Debt   (Ratio in Times)

FY	NSBL			EBL		
	CA	**STD**	**Ratio**	**CA**	**STD**	**Ratio**
2004/05	10278.92	9186.72	1.12	11598.45	10599.90	1.09
2005/06	12969.13	11241.03	1.15	15807.20	14696.47	1.08
2006/07	13803.98	11722.54	1.18	21262.47	19931.05	1.07
2007/08	17067.23	13945.32	1.22	26788.84	24928.10	1.07
2008/09	30663.11	28276.61	1.08	36489.68	34101.21	1.07

|						
Mean			**1.15**			**1.08**
S.D.			**0.05**			**0.01**
C.V.%			**4.16**			**0.88**

The table elaborates that the banks are almost in quite satisfactory solvency position to repay the short term debt that they have mobilized in financing the current assets. Both the current assets and the short term debt of both the banks have increased in each fiscal year. However, the increment in current assets of NSBL is somewhat greater than the increment in short term debt for the first four fiscal years, as a result the current assets to short term debt financing has increased in these periods, i.e. from 1.12 times in the fiscal year 2004/05 to 1.22 times in the fiscal year 2007/08, and finally the ratio has decreased to 1.08 times in the fiscal year 2008/09. In average, NSBL has maintained the ratio of 1.15 times and the variation in the ratio is just 4.16%, indicating uniformity.

Similarly in EBL, the increment rate in current assets and the increment rate in short term debt is precisely the same for the last three fiscal years, as a result the ratio of current assets to short term debt has remained constant, 1.07 times, within these periods. In highest, the bank has maintained the ratio of 1.09 times in the fiscal year 2004/05, and in average the ratio is 1.08 times, with only 0.88% variation.

Though both the banks are in quite satisfactory position to meet the immediate short term debt payment, the solvency position of NSBL is greater than that of EBL, since the average ratio of NSBL is comparatively higher than that of EBL.

Figure 4.4

Current Assets to Short Term Debt
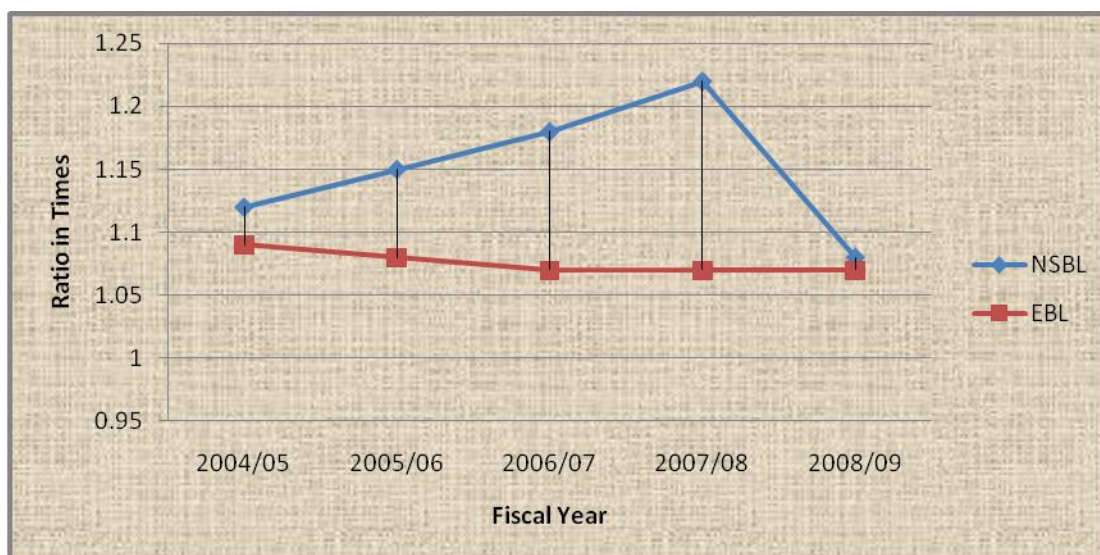
4.1.2.2 Interest Coverage Ratio

Interest Coverage is a great tool when measuring a company's ability to meet its debt obligations. When the interest coverage ratio is smaller than 1, the company is not generating enough cash from its operations EBIT to meet its interest obligations. The interest coverage ratio of NSBL and EBL has been presented in the table below.

Table 4.5

Interest Coverage Ratio   **(Ratio in Times)**

| FY	NSBL			EBL		
	EBIT	Int.	ICR	EBIT	Int.	ICR
2004/05	257.31	4.60	55.94	127.40	2.20	57.91
2005/06	363.60	18.00	20.20	202.41	2.65	76.38
2006/07	472.71	18.00	26.26	359.12	14.53	24.72
2007/08	682.32	23.63	28.88	365.31	17.28	21.14
2008/09	916.71	25.40	36.09	458.93	15.90	28.86
Mean			**33.47**			**41.80**
S.D.			**12.34**			**21.64**
C.V.%			**36.85**			**51.77**

It seems that the interest expenses on long term debt of the bank accounts less for NSBL in decreasing the bank's profitability, though the interest expenses is in increasing trend, i.e. from Rs. 4.60 millions in the fiscal year 2004/05 to Rs. 25.40 millions in the fiscal year 2008/09. In other word, the EBIT of the bank is extremely sufficient to cover the interest expenses, however, the interest coverage ratio of the bank has decreased drastically in the fiscal year 2005/06, i.e. from 55.94 times in the fiscal year 2004/05 to 20.20 times in the fiscal year 2005/06, and then it has caught up the gradual increment and finally it has reached to 36.09 times by the end of the fiscal year 2008/09. In average, the interest coverage ratio of the bank is 33.47 times with 36.85% variation.

Alike in NSBL, the interest expenses on long term debt of EBL has increased over the four fiscal year, i.e. from Rs. 2.20 millions in the fiscal year 2004/05 to Rs. 17.28 millions in the fiscal year 2007/08, and then it has slightly decreased its interest expenses on long term debt to Rs. 15.90 millions. However, the interest coverage ratio of EBL has varied widely, ranging from 21.14 times in lowest in the fiscal year 2007/08 to 76.38 times in highest in the fiscal year 2005/06. In average, the interest coverage ratio of the bank is 41.80 times with 51.77% variation.

Comparing the banks, it can be assumed that the EBIT of EBL has greater capacity to meet the interest expenses on long term debt in first two fiscal years, while in the last two fiscal years, the EBIT of NSBL is more strong to meet the interest expenses. Nonetheless the average interest coverage ratio of EBL is greater than that of NSBL.

Figure 4.5

Interest Coverage Ratio
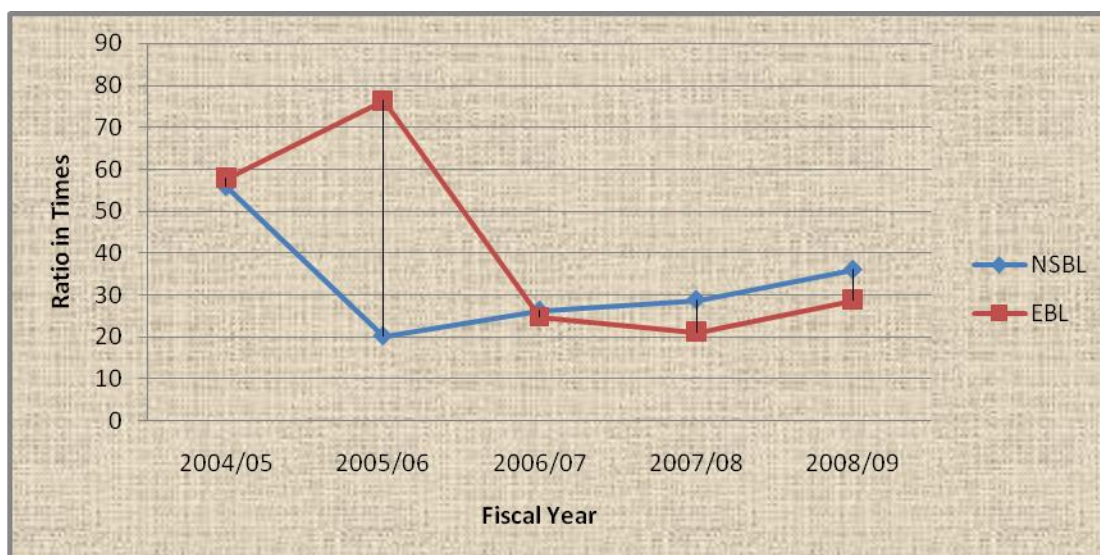
4.1.3 Profitability of Banks

Profit is the ultimate goal of every business organization. Without it the organization cannot sustain in the long run. The bank should also need to accumulate profit to secure its position in the market and to meet the expectations of the investors. Thus, the profitability position of the banks has been measured using different financial tools.

4.1.3.1 Earning Per Share

Earnings per share (EPS) are the earnings returned on the initial investment amount. Earning per share refers the rupee amount earned per share of common stock outstanding. It measures the return of each equity shareholders. The higher earning indicates the better achievements of the profitability of the banks by mobilizing their funds and vice versa.

Table 4.6

Earning Per Share (Unit in Rs.)

FY	NSBL	EBL
2004/05	13.29	54.22
2005/06	18.27	62.78
2006/07	39.35	78.42
2007/08	28.33	91.82

|		
2008/09	36.18	99.99
Mean	**27.08**	**77.45**
S.D.	**10.03**	**17.15**
C.V.%	**37.02**	**22.14**

Except in the fiscal year 2007/08, the earning per share of NSBL shows increasing trend within the five fiscal year periods. At the beginning of the observed periods, the EPS of the bank is Rs. 13.29, which has been progressively increased and thus the EPS has reached to Rs. 36.18 by the end of the fiscal year 2008/09. In average, NSBL has earned Rs. 27.08 per share with the variation of 37.02%, indicating inconsistency.

Likewise, the EPS of EBL has also increased in each fiscal year. Within the five year periods the EPS has been almost increased by two fold; at the beginning of the observed periods, the EPS is Rs. 54.22 which has been raised to Rs. 99.99 by the end of the fiscal year 2008/09. In average, EBL has earned Rs. 77.45 per share, with the variation of 22.14%.

Comparing the banks on the basis of EPS, it can be undoubtedly said that the EBL is stronger than NSBL in terms of profitability, since the EPS of EBL is higher than that of EBL in each fiscal year, and in average the EPS of EBL is more than 2.5 times of EPS of NSBL.

Figure 4.6

Earning Per Share
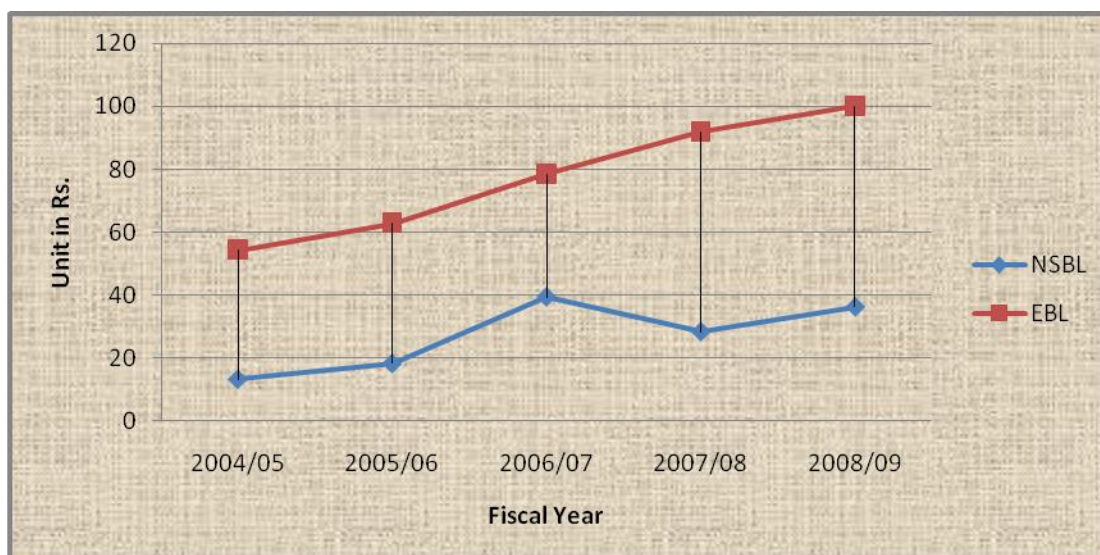
4.1.3.2 Return on Equity

Return on equity (ROE) measures the rate of return on the ownership interest (shareholders' equity) of the common stock owners. It measures a firm's efficiency at generating profits from every unit of shareholders' equity (also known as net assets or assets minus liabilities). ROE shows how well a company uses investment funds to generate earnings growth. The return on equity of NSBL and EBL has been presented in the table below.

Table 4.7

Return on Equity (Ratio in %)

FY	NSBL			EBL		
	NPAT	SE	ROE	NPAT	SE	ROE
2004/05	57.39	689.02	8.33	168.21	832.62	20.20
2005/06	117.00	982.38	11.91	237.29	962.81	24.65
2006/07	254.91	1163.29	21.91	296.41	1201.52	24.67
2007/08	247.77	1414.65	17.51	451.22	1921.24	23.49
2008/09	316.37	1712.61	18.47	638.73	2203.62	28.99

|					
Mean			**15.63**			**24.40**
S.D.			**4.86**			**2.81**
C.V.%			**31.12**			**11.54**

Along with the increment in shareholders' equity, the net profit of NSBL has also increased in each fiscal year, except in the fiscal year 2007/08. The net profit of the bank has been raised from Rs. 57.39 millions in the fiscal year 2004/05 to Rs. 316.37 millions in the fiscal year 2008/09. However, the pace of growth in net profit could not cope with the pace of growth of shareholders' equity, as a result the return on equity of the bank has followed fluctuating trend. In highest, the ROE of the bank is 21.91% in the fiscal year 2006/07 and in lowest, the ROE of the bank is 8.33% in the fiscal year 2004/05. In average, the bank has maintained 15.63% ROE in the last five consecutive fiscal years, which means that the bank has generated Rs. 15.638 net profit from Rs. 100 mobilization of shareholders' equity.

Alike in NSBL, the net profit in EBL has also followed increasing trend in EBL. The net profit of EBL has increased from Rs. 168.21 millions in the fiscal year 2004/05 to Rs. 638.73 millions in the fiscal year 2008/09. Also, the return on equity of the bank has followed increasing trend, except in the fiscal year 2007/08. The ROE of EBL has thus ranged from 20.20% in the fiscal year 2004/05 to 28.99% in the fiscal year 2008/09. In average, the ROE of the bank is 24.40%, indicating Rs. 24.40 net profit generated from Rs. 100 investment of equity capital.

Comparing the banks on the basis of ROE, it can be concluded that EBL is most efficient in mobilizing the equity capital, as a result EBL has earned more profit from same rupees of investment of equity.

Figure 4.7

Return on Equity
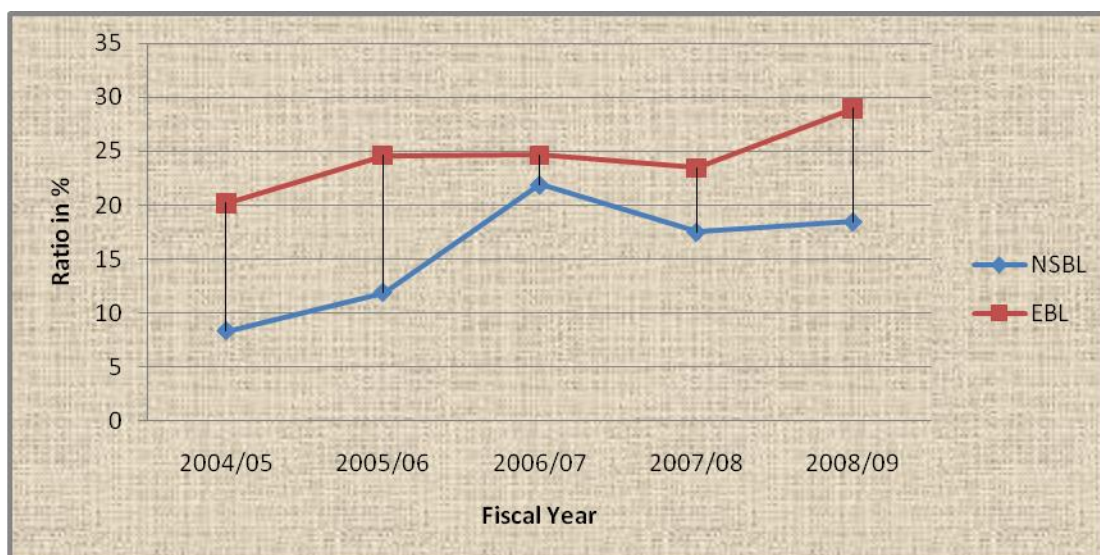
4.1.3.3 Return on Assets

The return on assets shows how profitable a company's assets are in generating revenue. Return on assets is an indicator of how profitable a company is before leverage, and is compared with companies in the same industry. Return on assets is a common figure used for comparing performance of financial institutions (such as banks), because the majority of their assets will have a carrying value that is close to their actual market value.

Table 4.8

Return on Assets   **(Ratio in %)**

FY	NSBL			EBL		
	NPAT	**TA**	**ROA**	**NPAT**	**TA**	**ROA**
2004/05	57.39	10345.37	0.55	168.21	11732.52	1.43
2005/06	117.00	13035.84	0.90	237.29	15959.28	1.49
2006/07	254.91	13901.20	1.83	296.41	21432.57	1.38
2007/08	247.77	17187.45	1.44	451.22	27149.34	1.66

| 2008/09	316.37	30916.69	1.02	638.73	36916.83	1.73
Mean			**1.15**			**1.54**
S.D.			**0.44**			**0.13**
C.V.%			**38.62**			**8.71**

(Source: Appendix II)

Along with the increment in net profit of the bank, the total asset of NSBL has also increased in each fiscal year. The total asset of the bank has ranged from Rs. 10345.37 millions in the fiscal year 2004/05 to Rs. 30916.69 millions in the fiscal year 2008/09. Consequently the ROA of NSBL has increased for the first three fiscal years, i.e. from 0.55% in the fiscal year 2004/05 to 1.83% in the fiscal year 2006/07, and then it has decreased to 1.44% in the fiscal year 2007/08 and finally it has decreased to 1.02% in the fiscal year 2008/09. Nevertheless the bank has kept the ROA of 1.15% in average, and the variation in the ratio is 38.62%, indicating quite inconsistency. The average ratio implies that the bank has generated Rs. 1.15 net profit from Rs. 100 mobilization of total assets.

As in NSBL, the total asset of EBL is also in increasing trend, and thus it has increased from Rs. 11732.52 millions in the fiscal year 2004/05 to Rs. 36916.83 millions in the fiscal year 2008/09. Further, the ROA of the bank has followed almost increasing trend, excluding the decrement in the fiscal year 2006/07. The ROA of EBL is just 1.43% in the fiscal year 2004/05, however, it has been increased to 1.73% by the end of the fiscal year 2008/09. In average, the ROA of the bank is 1.54%, indicating generating of Rs. 1.54 net profit from Rs. 100 investment of total assets, and the coefficient of variation in the ratio is 8.71%, indicating quite consistency.

Comparing the banks on the ground of ROA, it can be concluded that EBL is more efficient than NSBL in effectively mobilizing the total assets, since the net profit generation from mobilizing equal amount of total assets is higher in

EBL than in NSBL. Thus, it can be inferred that the profitability management of EBL is much robust than that of NSBL.

Figure 4.8

Return on Assets
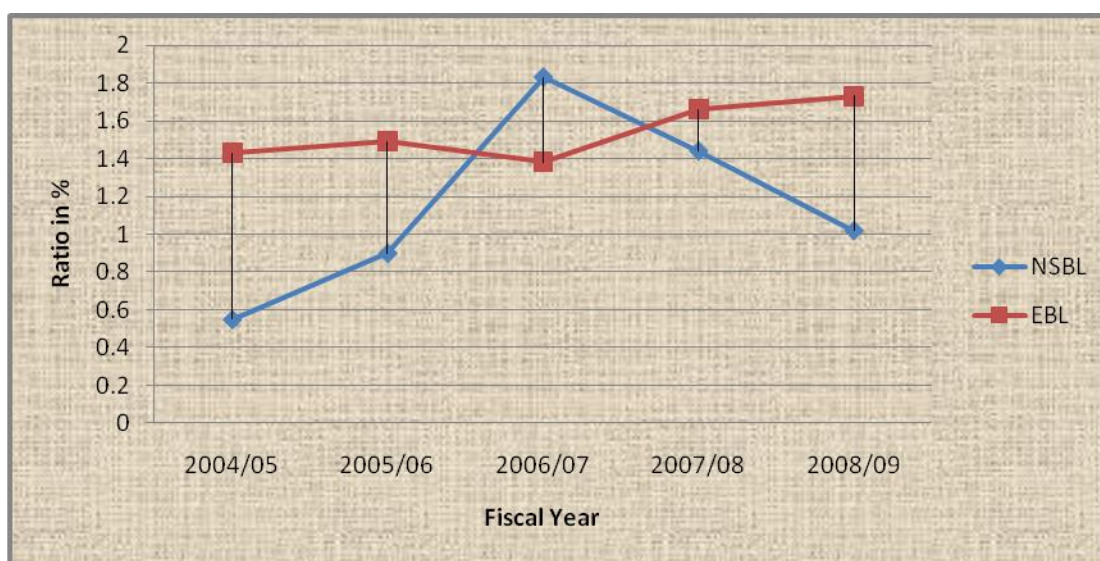
4.1.3.4 Return on Deposits

Deposit is the major source of banks' fund. Return on total deposit ratio measures how efficiently the deposits have been mobilized. It reveals the relationship between net profit after tax and total deposits. The return on deposits of NSBL and EBL has been presented in the table below.

Table 4.9

Return on Deposits   **(Ratio in %)**

FY	NSBL			EBL		
	NPAT	**Dep.**	**ROD**	**NPAT**	**Dep.**	**ROD**
2004/05	57.39	8654.77	0.66	168.21	10097.69	1.67
2005/06	117.00	11002.04	1.06	237.29	13802.44	1.72
2006/07	254.91	11445.28	2.23	296.41	18186.25	1.63

|						
2007/08	247.77	13715.39	1.81	451.22	23976.30	1.88
2008/09	316.37	27957.22	1.13	638.73	33322.95	1.92
Mean			**1.38**			**1.76**
S.D.			**0.56**			**0.12**
C.V.%			**40.72**			**6.56**

The table reveals that the net profit in comparison to total deposit of NSBL has increased for the first three fiscal years and then it has decreased in the last two fiscal years, regardless of the increasing trend of deposit, which has increased from Rs. 8654.77 millions in the fiscal year 2004/05 to Rs. 27957.22 millions in the fiscal year 20008/09. Thus, the return on deposit has ranged from 0.66% in the fiscal year 2004/05 to 2.23% in the fiscal year 2006/07, while in the fiscal year 2008/09, it is 1.13. In average, NSBL has earned 1.38% of the total deposit and the variation in such earning percentage is 40.72%, indicating inconsistency.

Alike in NSBL, the total deposit of EBL has also been ascertained in increasing trend, i.e. the total deposit has increased from Rs. 10097.69 millions in the fiscal year 2004/05 to Rs. 33322.95 millions in the fiscal year 2008/09. In addition, the return of deposit of the bank has also been in increasing trend, except in the fiscal year 2006/07. The ratio is 1.67% in the fiscal year 2004/05 and gradually it has increased to 1.92% in the fiscal year 2008/09. In average, EBL has earned 1.76% of the total deposit as net profit and the instability in such ratio is just 6.56%.

Comparing the banks on the basis of return on deposit, it can be said undoubtedly that EBL possess greater efficiency than NSBL in mobilizing the total deposit to achieve high net profit. Further, there is high security in return on total deposit of EBL than in that of NSBL. Thus, the profitability position of NSBL is just meager in comparison to that of EBL.

Figure 4.9

Return on Deposits
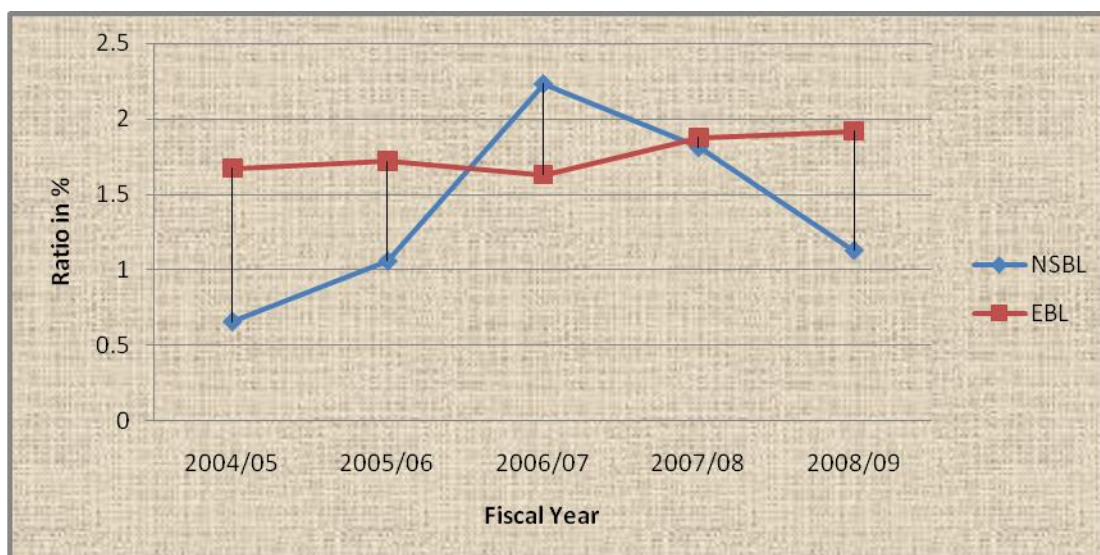
4.1.4 Cost of Capital

The cost of <u>capital</u> is the cost of a company's funds (both <u>debt</u> and <u>equity</u>), or, from an investor's point of view 'the expected return on a portfolio of all the company's existing securities'. It is used to evaluate new projects of a company as it is the minimum return that investors expect for providing capital to the company, thus setting a benchmark that a new project has to meet. Low the cost of capital tends better capital structure of the firm.

Table 4.10

Cost of Capital   **(Ratio in %)**

FY	NSBL			EBL		
	EBIT	**Value**	**Ko**	**EBIT**	**Value**	**Ko**
2004/05	257.31	689.01	37.34	127.40	692.60	18.39
2005/06	363.60	971.73	37.42	202.41	822.80	24.60
2006/07	472.71	1153.31	40.99	359.12	1061.50	33.83

60

|						
2007/08	682.32	1404.26	48.59	365.31	1581.20	23.10
2008/09	916.71	1702.57	53.84	458.93	2003.60	22.91
Mean			**43.64**			**24.57**
S.D.			**6.54**			**5.08**
C.V.%			**14.99**			**20.66**

(Source: Appendix II)

The above table measures the cost of capital and overall capitalization rates of the selected banks. The data of NSBL shows that cost of capital has increased in each fiscal years. The cost of capital indicates that the EBIT does not increase/decrease in the same proportion as the value of the bank does. The cost of capital in the fiscal year 2004/05 is 37.34%, 2005/06 is 37.42%, 2006/07 is 40.99%, 2007/08 is 48.59% and 2008/09 is 53.84%. The average rate of cost of capital or the overall cost of capital of NSBL is 43.64%, and the fluctuation rate is 14.99%.

Similarly, the cost of capital in EBL has followed increasing trend in the first three years and then deceasing trend in the remaining years. The cost of capital in the fiscal year 2004/05 is 18.39%, which has increased up to 33.83% in the fiscal year 2006/07 and then has decreased to 22.91% by the end of the fiscal year 2008/09. In average, EBL has maintained 24.57% cost of capital with 20.66% fluctuation.

The table shows that the overall capitalization rate of EBL is lower than that of NSBL, which indicates that the capital structure of EBL is better than that of NSBL. The NSBL should make an effort to reinforce the capital structure by increasing debt capital in order to lower the cost of capital.

Figure 4.10

Cost of Capital

61
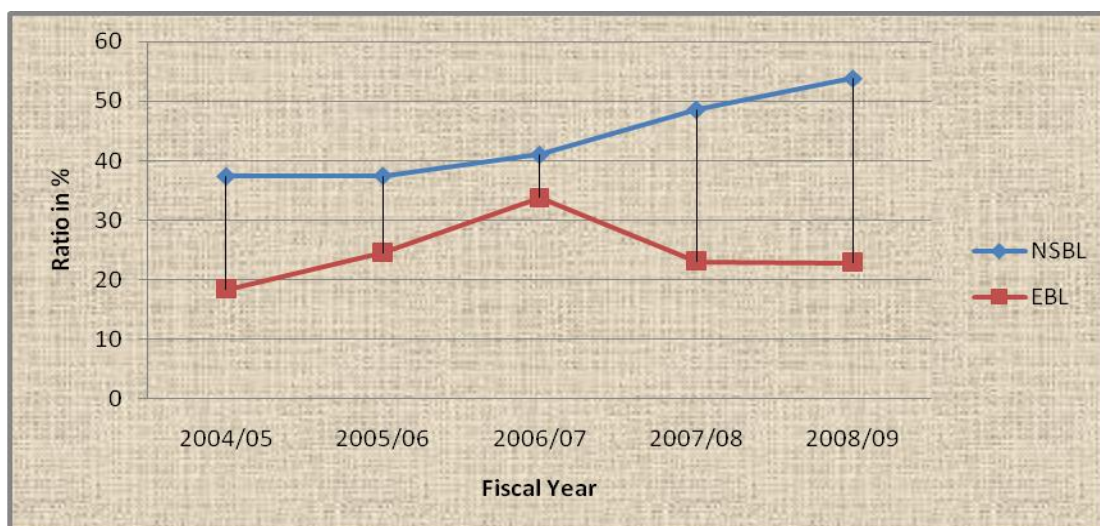
4.1.5 Statistical Analysis

Under this section, the impact of capital structure on profitability of the bank has been measured and the trend value of debt equity ratio and the net profit for the forthcoming four fiscal years have been estimated.

4.1.5.1 Relationship between D/E ratio and NPAT

It is obtrusive that the net profit of the bank somewhat depends on the capital structure, but to what extent is just dilemma. Thus, to measure the impact of debt equity ratio on net profit, the correlation coefficient and regression analysis have been performed.

Table 4.11

Relationship between D/E ratio and NPAT

Bank	r	P.E.	6 P.E.	Regression	Remark
NSBL	0.0981	0.2987	1.7925	NPAT = 167.30 + 37.27 D/E	Insignificant
EBL	-0.5003	0.2261	1.3569	NPAT = 701.77 – 1262.49 D/E	Insignificant

(Source: Appendix III)

The table depicts that the D/E ratio has very low positive relationship with NPAT of NSBL and negative relationship with NPAT of EBL, as the correlation coefficient between these two variables is 0.0981 in NSBL and -0.5003 in EBL. The correlation coefficient indicates that NSBL should increase

62

D/E ratio to increase net profit, which ultimately means to increase long term debt capital or decrease shareholders' equity, and EBL should decrease D/E ratio to increase net profit, which means decrease in long term debt capital or increase in shareholders' equity.

Further, the regression analysis shows that with 1% increase in D/E ratio leads to Rs. 37.27 million increase in net profit of NSBL, and Rs. 1262.49 millions decline in net profit of EBL. However, the net profit is not solely dependent on the D/E ratio, since the calculated correlation coefficient between these two variables is lower than the 6 P.E. of the corresponding banks. Thus, it can be assumed that the relationship between D/E ratio and net profit is statistically insignificant, and thus it is not obligatory that net profit should increase/decrease with the increase/decrease of D/E ratio.

4.1.5.2 Relationship between Debt Ratio and NPAT

To measure the impact of debt ratio on profitability of the bank, the net profit has been considered as the dependent variable on debt ratio.

Table 4.12

Relationship between Debt Ratio and NPAT

Bank	r	P.E.	6 P.E.	Regression	Remark
NSBL	0.0602	0.3006	1.8033	NPAT = -308.99 + 5.47 DR	Insignificant
EBL	0.1869	0.2911	1.7466	NPAT = -4438.03 + 51.22 DR	Insignificant

(Source: Appendix III)

Clearly there is low positive correlation between total debt to total assets ratio and net profit of each bank. The correlation coefficient between these two variables is 0.0602 in NSBL and 0.1869 in EBL. The positive relationship indicates that an increment in total debt capital can cause net profit to increase. Also the regression analysis enlightens that 1% increase in total debt to total assets can increase Rs. 5.47 millions net profit in NSBL, if the variable -308.99 remains constant, and Rs. 51.22 millions net profit in EBL, if the variable -

63

4438.03 remains stable. Comparatively, the effect of total deposit to total assets on net profit is higher in EBL than in NSBL. However, the relationship between these two variables is statistically insignificant, since the 'r' value is lower than the 6 P.E. and thus the net profit may not increase in the same way as the regression analysis suggests.

4.1.5.3 Trend Analysis of D/E ratio

To estimate the value of debt equity ratio in the forthcoming four fiscal years, the debt equity ratio has been considered as the dependent variable (Y) on the time period (X).

Table 4.13

Trend Analysis of D/E ratio

FY	NSBL	EBL
2009/10	0.90	0.18
2010/11	0.91	0.15
2011/12	0.93	0.12
2012/13	0.95	0.09
2013/14	0.97	0.06
Regression	**D/E ratio = 0.79 + 0.02X**	**D/E ratio = 0.37 − 0.03X**

(Source: Appendix IV)

The table shows that NSBL is going to increase the debt equity ratio in the forthcoming fiscal years, whereas EBL will prefer to decrease the debt-equity ratio. The D/E ratio of NSBL will increase by 0.02 times in each fiscal year and that of EBL will decrease by 0.03 times in each forthcoming years, if the other variables remain constant. By the end of the fiscal year 2013/14, the estimated value of D/E ratio of NSBL will be 0.97 times, which indicates almost equal usage of equity and long term debt capital, and that of EBL will be 0.06 times, which indicates almost ten times greater usage of equity capital than long term debt.

Figure 4.11

Trend Analysis of D/E ratio
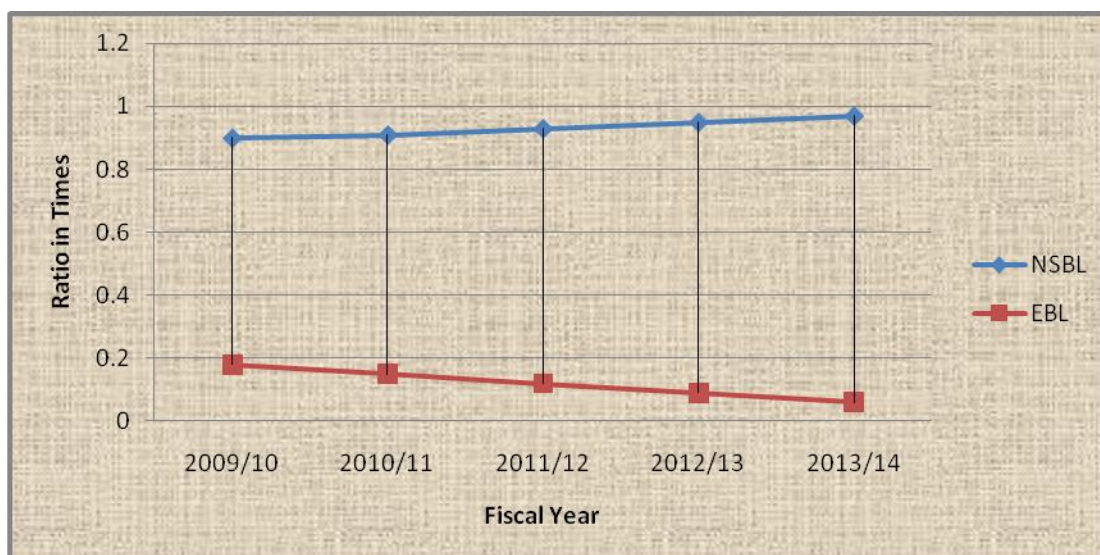
4.1.5.4 Trend Analysis of NPAT

Let net profit after tax be the dependent variable on time period. Then the estimated value of net profit for the forthcoming periods and the regression equation of net profit on time period have been presented in the table below.

Table 4.14

Trend Analysis of NPAT

| FY	NSBL	EBL
2009/10	393.31	704.86
2010/11	458.18	820.36
2011/12	523.05	935.86
2012/13	587.93	1051.35
2013/14	652.80	1166.85
Regression	**NPAT = 4.07 + 64.87X**	**NPAT = 11.88 + 115.50X**

(Source: Appendix IV)

The trend analysis of net profit after tax indicates that the net profit of both the banks will have positive relationship with the time period, and thus the net profit of both the banks increases in the forthcoming fiscal years. The net profit of NSBL will increase by Rs. 64.87 millions in each fiscal year and that of EBL will increase by Rs. 115.50 millions in each fiscal year in the forthcoming periods. This indicates that the pace of growth of net profit of EBL will be

greater than that of NSBL in future. By the end of the fiscal year 2013/14, the estimated value of net profit of NSBL will be Rs. 652.80 millions and that of EBL will be Rs. 1166.85 millions, almost two times of NSBL's net profit.

Figure 4.12

Trend Analysis of NPAT
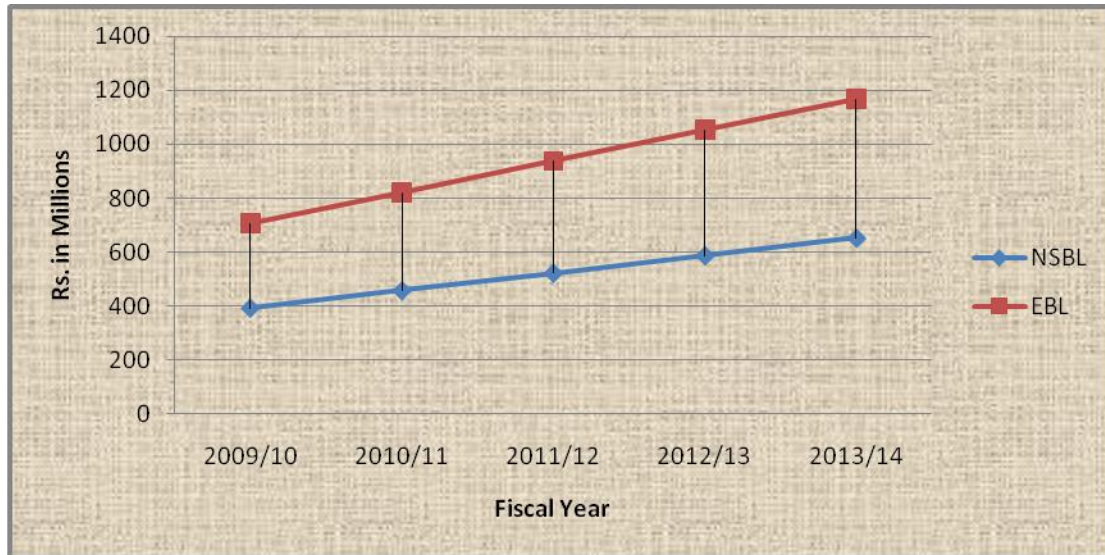
4.2 Primary Data Analysis

To collect the opinions bank related personnel regarding the capital structure and the profitability of the banks, the opinion survey has been performed. For this a questionnaire containing 7 questions has been prepared and requested to 50 respondents; 25 shareholders and 25 depositors, to fill up the questionnaire.

4.2.1 Reflection of Capital Structure

Capital structure is the composition of debt capital and equity capital. To examine what the capital structure of the bank should reflect mainly, the respondents are asked to express their view. The respondents obtained from them are presented in the table.

Table 4.15

Reflection of Capital Structure

Response	Shareholder		Depositor		Total	
	No.	%	No.	%	No.	%

High Equity Capital	13	52	12	48	25	50
High Debt Capital	8	32	12	48	20	40
Don't Know	4	16	1	4	5	10
Total	**25**	**100**	**25**	**100**	**50**	**100**

The table reveals that most of the shareholders, 52% (13 out of 25), and 48% (12 out of 25) of depositors are in the view that the capital structure of the bank should reflect high equity capital than long term debt. In total 50% of the respondents, 25 out of 50, have supported this opinion. Similarly, 32% of the shareholders, 8 out of 25, and 48% of the depositors, 12 out of 25, have opined that the capital structure should reflect high long term debt capital. About 40% of the total respondents have defended for this opinion. While 16% of the shareholders, 4% of the depositors and 10% of the total respondents have said that they have no sufficient idea on this issue. Viewing the majority of the total respondents, it can be argued that most investors are fully aware about the interest cost and risk that debt capital carries, and thus they have desired secured capital structure by financing through more equity capital.

Figure 4.13

Reflection of Capital Structure (in Total)
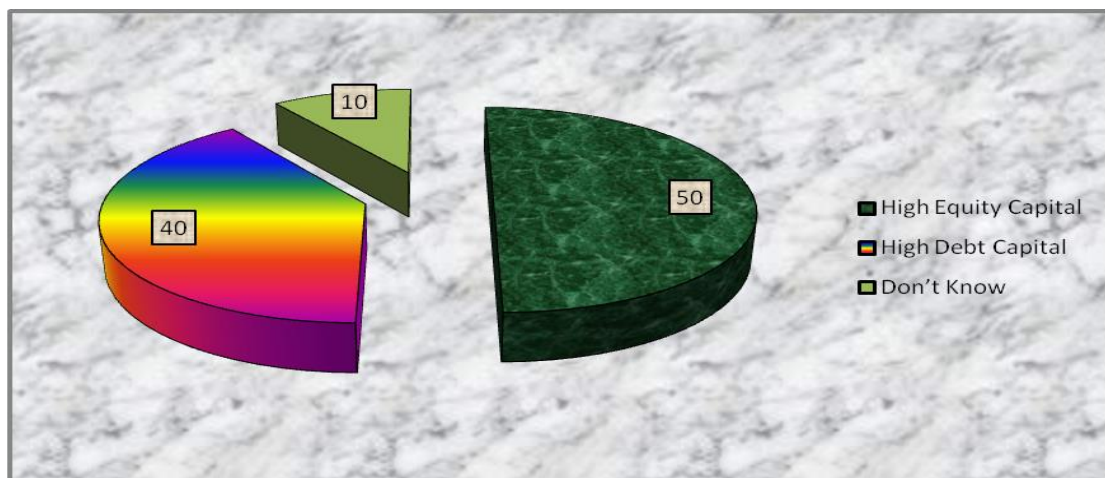
4.2.2 Increment in Equity Capital

To investigate on what the bank should focus on, if it decides to meet the fund requirement through equity capital, the respondents are requested to express their opinions. The responses achieved from them are presented in the table.

67

Table 4.16

Increment in Equity Capital

Response	Shareholder		Depositor		Total	
	No.	**%**	**No.**	**%**	**No.**	**%**
Issue New Share	15	60	9	36	24	48
Increase Retention Rate	2	8	6	24	8	16
Right Offering	8	32	10	40	18	36
Total	**25**	**100**	**25**	**100**	**50**	**100**

(Source: Opinion Survey, 2010)

To increase the equity capital of the bank, the majority of the shareholders, 60% (15 out of 25), 36% of the depositors and 48% of the total respondents have suggested issuing public share. While 32% of the shareholders, 8 out of 25, the majority of the depositors, 40% (10 out of 25), and 36% of the total respondents, 18 out of 50, have implied the right offering as the best option for equity capital augmentation.

Similarly, 8% of the shareholders, 24% of the depositors and 16% of the total respondents have opined the increment in retention rate of the net profit by decreasing the dividend payout ratio as the major source for equity increment. Eventually, on the basis of overall majority, it can be assumed that issuing public share is the best method for increment in equity capital.

Figure 4.14

Increment in Equity Capital (in Total)
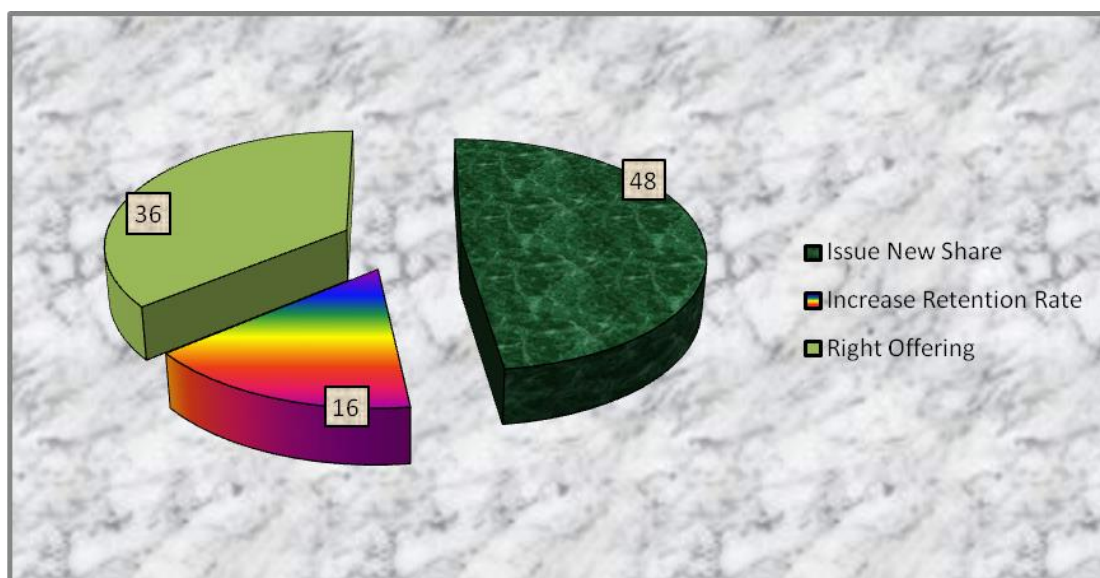
4.2.3 Increment in Debt Capital

Alternatively the bank can meet its fund requirement through debt capital instead of equity capital. But the question may arise on the form of debt capital to be quested on. To resolve such dilemma, the respondents are asked to opine their views.

**Table 4.17**

Increment in Debt Capital

Response	Shareholder		Depositor		Total	
	No.	**%**	**No.**	**%**	**No.**	**%**
Issuing Debenture	4	16	2	8	6	12
Long Term Borrowing	9	36	7	28	16	32
Short Term Borrowing	12	48	16	64	28	56
Total	**25**	**100**	**25**	**100**	**50**	**100**

(Source: Opinion Survey, 2010)

The table shows that the majority of both shareholders, 48%, and depositors, 64%, and eventually the majority of the total respondents, 56%, have opined that the bank should increase its debt capital requirement by borrowing short term credit, although it is considered much risky. In contrast, 16% of the shareholders, 8% of the depositors and 12% of the total respondents have stated that the bank should fulfill its debt requirement by issuing debenture. While

69

36% of the shareholders, 28% of the depositors and 32% of the total respondents have affirmed that the bank should borrow long term credit for meeting the debt capital requirement. Summarizing the majority of the total respondents, it can be inferred that the bank should focus on borrowing short term credit rather than in long term credit or issuing debenture to meet the debt capital requirement.

Figure 4.15

Increment in Debt Capital (in Total)
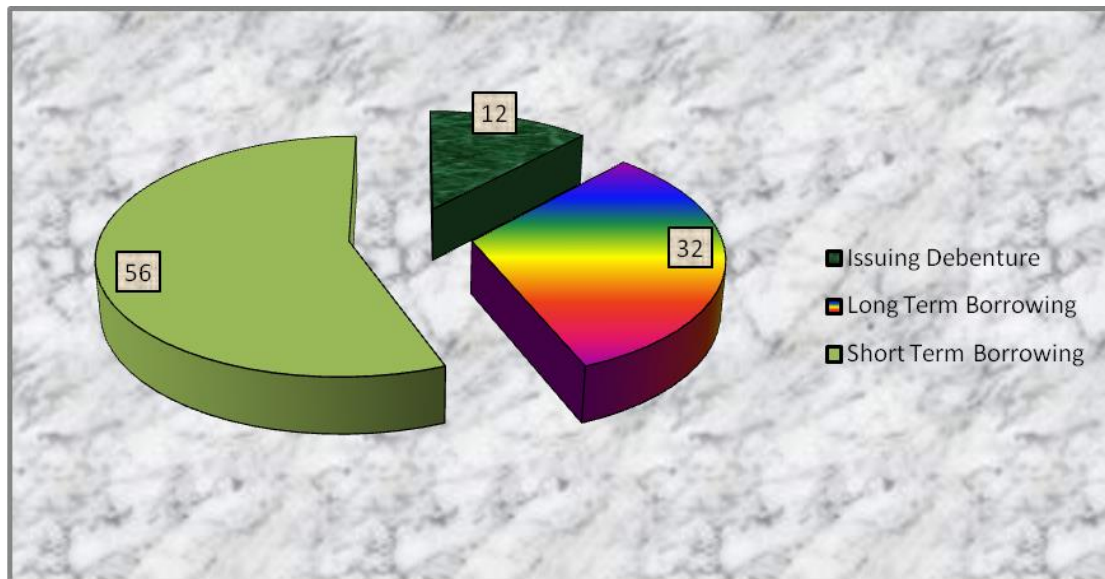
4.2.4 Policy for Optimum Capital Structure

While making optimum capital structure, the bank has three options that best suits it; using extensively equity capital, using extensively debt capital, and using equally debt and equity capital. To know which of the above policy best suits for bank in having optimum capital structure, the responses are collected.

Table 4.18

Policy for Optimum Capital Structure

Response	Shareholder		Depositor		Total	
	No.	%	No.	%	No.	%
Conservative Policy	6	24	8	32	14	28
Moderate Policy	15	60	10	40	25	50
Aggressive Policy	4	24	7	28	11	22
Total	**25**	**100**	**25**	**100**	**50**	**100**

(Source: Opinion Survey, 2010)

The table reveals that 24% of the shareholders, 32% of the depositors and 28% of the total respondents are in the view that the bank should adopt conservative policy, which involves excessive use of equity capital than debt capital, for having sound capital structure. Similarly, 60% of the shareholders, 40% of the depositors and 50% of the total respondents have opined that the bank should adopt moderate policy, which involves equal proportion of debt and equity capital, for having optimal capital structure. Likewise, 24% of the shareholders, 28% of the depositors and 22% of the total respondents have supported aggressive policy, which indicates tremendous use of debt capital than equity capital, for optimal capital structure. On the basis of the overall majority, it can be concluded that the adoption of the moderate policy would be the best option for the bank for having strong capital structure.

Figure 4.16

Policy for Optimum Capital Structure (in Total)
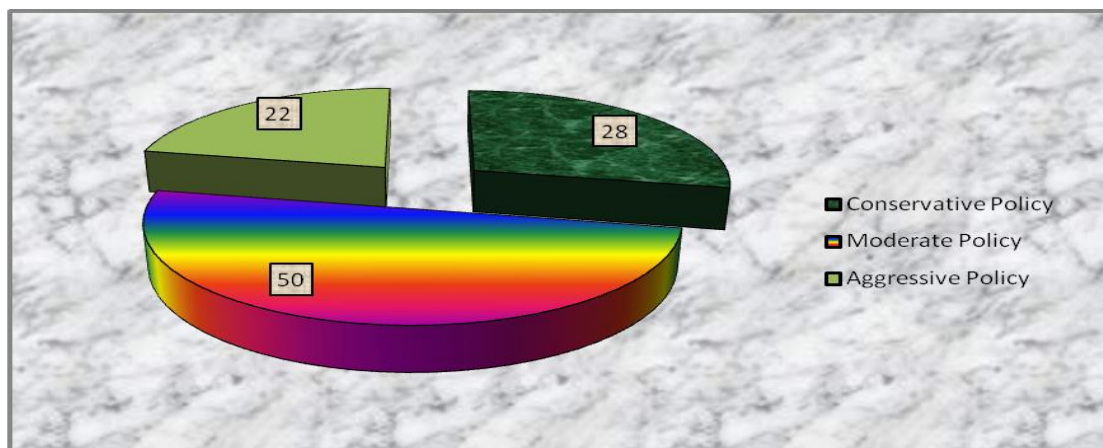
4.2.5 Emphasis for Optimal Capital Structure

Maintaining optimal capital structure, which does not occur itself, is the key onus of the bank management. Thus to maintain optimal capital structure the bank has to consider on various key factors. To investigate the major factor on which the management should give greater emphasis, the responses are collected.

Table 4.19

Emphasis for Optimal Capital Structure

| Response	Shareholder		Depositor		Total	
	No.	%	No.	%	No.	%
Minimizing Cost of Capital	11	44	12	48	23	46
Minimizing Risk	10	40	9	36	19	38
Flexibility	2	8	1	4	3	6
Capacity	1	4	3	12	4	8
Control	1	4	0	0	1	2
Total	**25**	**100**	**25**	**100**	**50**	**100**

(Source: Opinion Survey, 2010)

The table reveals that 44% of the shareholders, 48% of the depositors and 46% of the total respondents are in the view that the management should try to minimize the cost of capital while having optimal capital structure. Similarly, 40% of the shareholders, 36% of the depositors and 38% of the total respondents have opined that the management should pay concern on minimizing the risk that may arise in banking operation for ensuring sound capital structure. Likewise, 8% of the shareholders, 4% of the depositors and 6% of the total respondents have said that the capital structure should be flexible enough to be called as optimal capital structure, since the flexibility helps to grab market opportunity as bank can raise its fund whenever it is needed for profitable investment opportunities.

Also 4% of the shareholders, 12% of the depositors and 8% of the total respondents have decided that the optimal capital structure should be determined within the debt capacity of the bank and the bank should have

enough cash to pay the creditors' fixed charges and principal sum. Finally 4% of the shareholders, which reflects 2% of the total respondents, have stated that the control power should be one of the most concerned parts of management for having optimal capital structure. Among different choices, it can be concluded that the management should give more emphasis to minimize cost of capital for having sound capital structure.

Figure 4.17

Emphasis for Optimal Capital Structure (in Total)
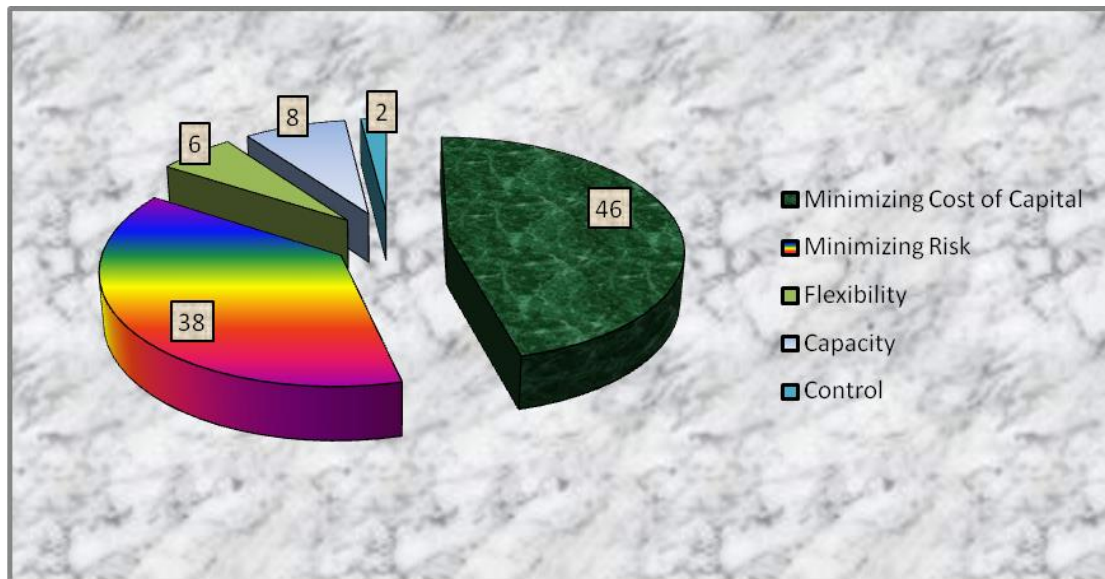
4.2.6 Main Factor Influencing Capital Structure

While determining on how the capital structure of the bank is going to be, the bank management should at first be cautious on the various determinants that affect the capital structure. To examine the main influencer that affects the banks' capital structure, the respondents are asked on this issue.

Table 4.20

73

Main Factor Influencing Capital Structure

| Response	Shareholder		Depositor		Total	
	No.	%	No.	%	No.	%
Component Cost of Capital	5	20	4	16	9	18
Nature & Size of Business	6	24	6	24	12	24
Growth & Stability	8	32	6	24	14	28
Management Attitude	3	12	2	8	5	10
Corporate Tax Rate	0	0	2	8	2	4
Cash Flow Stability	1	4	4	16	5	10
Others	2	8	1	4	3	6
Total	**25**	**100**	**25**	**100**	**50**	**100**

(Source: Opinion Survey, 2010)

The table shows that 20% of the shareholders, 16% of the depositors and 18% of the total respondents are in the view that the component cost of capital, which indicates financial manager who prefers to use larger amount of less costly component use high debt capital, is the main influencer of capital structure. Similarly, 24% of the shareholders, 24% of the depositors and 24% of the total respondents have stated nature and size of business, small companies depends mainly upon ownership capital and vice versa, is the main influencer. Likewise, 32% of the shareholders, 24% of the depositors and 28% of the total respondents have stated that growth and stability of the bank determines capital structure, indicating rapidly growing banks tend to use somewhat more debt than slower growing banks. Further, 12% of the shareholders, 8% of the depositors and 10% of the total respondents have opined that the management attitude is the main influencer of capital structure.

Also, 8% of the depositors, which represents 4% of the total respondents, have opined that the corporate tax rate determines the capital structure, and 4% of the shareholders, 16% of the depositors and 10% of the total respondents have stated that cash flow stability is the major determinant of capital structure, meaning high cash flow stable bank prefer to increase debt capital. Also, 8% of

the shareholders, 4% of the depositors and 6% of the total respondents have said that the others, which involves period of finance, assets structure, lender attitudes, debt covenants etc., are the major determinant of capital structure. Finally, on the basis of the overall majority, it can be assumed that growth and stability of the bank mainly influences the capital structure of such bank.

Figure 4.18

Main Factor Influencing Capital Structure (in Total)
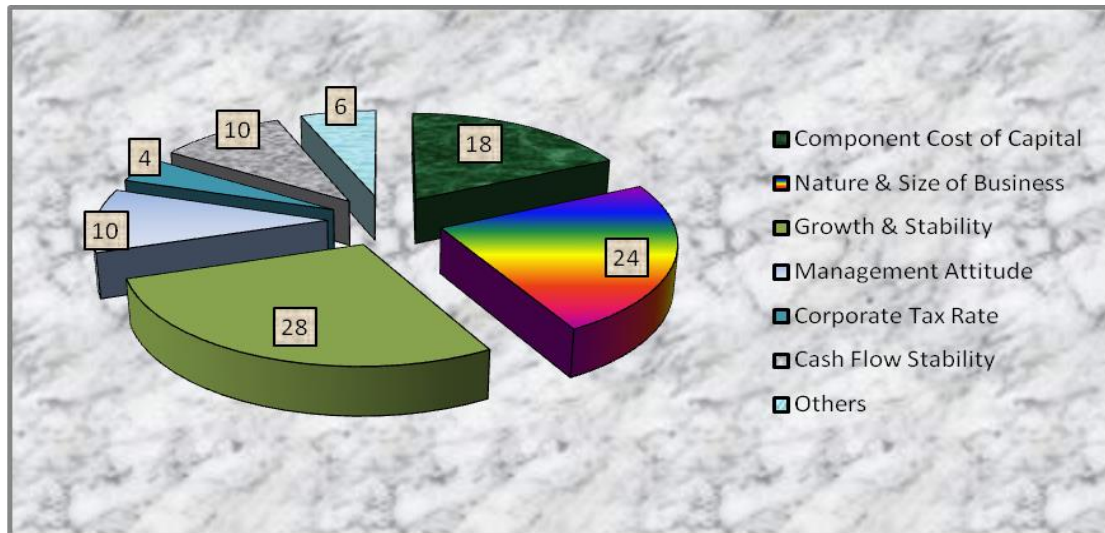
4.2.7 Impact of Capital Structure to Profitability

To examine the impact of capital structure on profitability of the bank is one of the specific objectives of the study. Thus, the respondents are asked to opine on the extent of impact of capital structure on profitability.

Table 4.21

**Impact of Capital Structure to Profitability**

Response	Shareholder		Depositor		Total	
	No.	%	No.	%	No.	%
High	14	56	12	48	26	52
Medium	11	44	13	52	24	48
Low	0	0	0	0	0	0
Total	**25**	**100**	**25**	**100**	**50**	**100**

(Source: Opinion Survey, 2010)

The table depicts that 56% of the shareholders, 48% of the depositors and 52% of the total respondents have opined that capital structure has high impact on the profitability of the banks. While 44% of the shareholders, 11 out of 25, 52% of the depositors, 13 out of 25, and 48% of the total respondents, 24 out of 50, have viewed the medium impact of capital structure on the profitability of the banks. However none of the respondents have said that there is no impact of capital structure on profitability. Clearly, it can be concluded that capital structure of the banks has impact on profitability to some extent.

Figure 4.19

Impact of Capital Structure to Profitability (in Total)
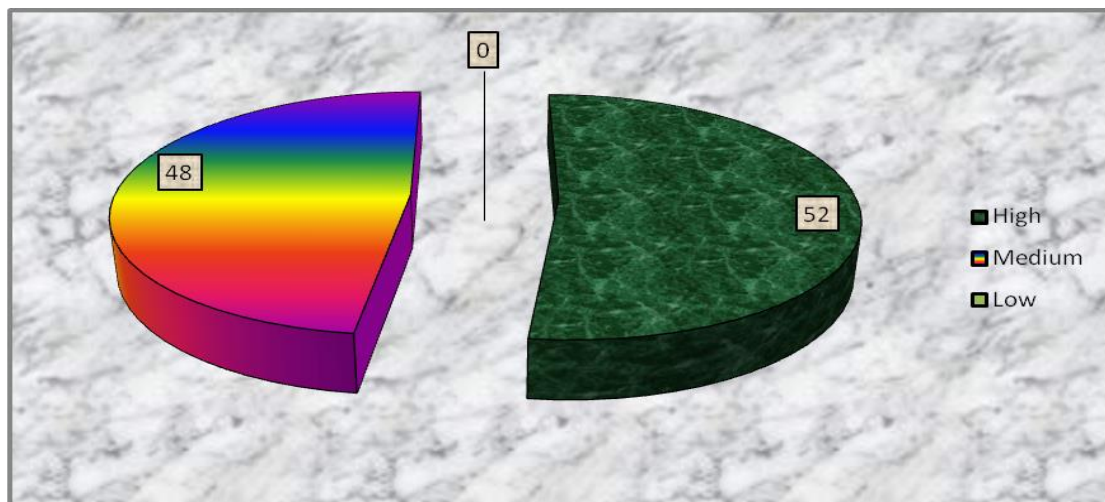
4.3 Major Findings of the Study

On the basis of the analysis, the following major findings have been drawn;

Findings from Secondary Data Analysis

- The equity capital financing of both the banks are greater than the long term debt financing, as a result the debt equity ratio of NSBL is 0.84 times and of EBL is 0.27 times in average.

- The usage of long term debt in term of total debt is higher in NSBL than in EBL. Consequently the average long term debt to total debt of NSBL is 6.87% and that of EBL is 1.84%.

- The total asset of EBL is more risky than that of NSBL, since the average debt ratio of EBL, 93.64%, is greater than that of NSBL, 92.73%.

- The current asset of NSBL is more promising to meet the short term debt than that of EBL. The average current asset to short term debt of NSBL is 1.15%, while that of EBL is 1.08%, indicating strong solvency in NSBL.

- The EBIT of EBL is stronger than that of NSBL in meeting the interest liabilits. The interest coverage ratio of EBL is 41.80% and that of NSBL is 33.47% in average.

- EBL is much profitable than NSBL, which has been verified by earning per share. The EPS of EBL is Rs. 77.45 and that of NSBL is Rs. 27.08 in average.

- Further, EBL is much efficient than NSBL in mobilizing equity capital, total assets and total deposits to yield profit. The average ROA, ROE and ROD of NSBL is 15.63%, 1.15% and 1.38% respectively and those of EBL is 24.40%, 1.54% and 1.76% respectively.

- The capital structure of EBL is superior to that of NSBL in term of keeping low cost of capital. The cost of capital of NSBL is 43.64% and that of EBL is 24.57%.

- The statistical analysis shows that the correlation coefficient between D/E ratio and NPAT is 0.0981 in NSBL and -0.5003 in EBL, statistically insignificant, Debt Ratio and NPAT is 0.0602 in NSBL and 0.1869 in EBL, statistically insignificant.

- The trend analysis shows that the D/E ratio will be 0.97 times in NSBL and 0.06 times in EBL, and the NPAT will be Rs. 652.80 million in NSBL and Rs. 1166.85 million in EBL by the end of the fiscal year 2013/14.

Findings from Primary Data Analysis

- Half of the respondents have opined that the capital structure should reflect high equity capital. 48% of the respondents have suggested issuing new public share to collect the fund through equity capital. Similarly, 56% of the respondents have opined the short term borrowing as the best method for funding through debt capital.

- Likewise, half of the respondents have opined that the bank should adopt moderate policy for having optimum capital structure. And 46% of the respondents have stated that the bank management should consider the cost of capital most, while determining the capital structure.

- Similarly, 28% of the respondents have said that the growth and stability of the bank affects the capital structure most. And 52% of the respondents have opined that the capital structure of the bank has high impact on profitability.

CHAPTER – V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

Capital structure is a very important element for firms' profitability. Firms may use their debt-to-equity ratio to affect profitability. Some firms choose a high debt-to-equity ratio, whereas others prefer to choose a lower one. The successful selection and use of the debt-to-equity ratio is one of the key elements of the firm's financial strategy. Capital structure affects a banks' overall value through its impact on operating cash flows and the cost of capital. Since the interest expense on debt is tax deductible in most countries, a bank can reduce its after-tax cost of capital by increasing debt relative to equity, thereby directly increasing its intrinsic value.

Carrying some debt increases a bank's intrinsic value because debt imposes discipline; a bank must make regular interest and principal payments, so it is less likely to pursue frivolous investments or acquisitions that don't create value. Having too much debt, however, can reduce a bank's intrinsic value by limiting its flexibility to make value-creating investments of all kinds, including capital expenditures, acquisitions, and, just as important, investments in intangibles such as business building, and sales and marketing.

Managing capital structure thus becomes a balancing act. Mature banks with stable and predictable cash flows as well as limited investment opportunities should include more debt in their capital structure, since the discipline that debt often brings outweighs the need for flexibility. Banks that face high uncertainty because of vigorous growth or the cyclical nature of their industries should carry less debt, so that they have enough flexibility to take advantage of investment opportunities or to deal with negative events.

Eventually, it can be said that the capital structure has greater impact in profitability. To examine this axiom, two banks namely, Nepal SBI Bank Limited (NSBL) and Everest Bank Limited (EBL), have been taken as sample for the study. And to achieve the objectives of the study, various financial and statistical tools have meticulously applied.

5.2 Conclusion

Analyzing the capital structure of the banks, it has been ascertained that NSBL is more risk taker than EBL, since the debt equity ratio of NSBL is greater than that of EBL, and as a result the capital structure of NSBL is more dominated by the debt capital percentage than in EBL. However, o the basis of the long term debt to total debt, it has been found that EBL is more risk taking than NSBL, since the usage of short term debt in total debt is higher in EBL, and thus eventually the short term debt carries higher risk than long term debt. Ultimately, it can be concluded that the total assets of each bank bears greater risk. More specifically, the total assets of EBL is slightly risky than that of NSBL, since the debt coverage is slightly greater in EBL than in NSBL. In addition to these, the solvency position of NSBL is greater than that of EBL, since the average ratio of NSBL is comparatively higher than that of EBL. Despite this, EBIT of EBL has greater capacity to meet the interest expenses on long term debt.

Analyzing the profitability of the banks, it can be concluded that the EBL is stronger than NSBL in terms of profitability, since the EPS of EBL is higher than that of EBL in each fiscal year. Further, EBL is most efficient in mobilizing the equity capital, as a result EBL has earned more profit from same rupees of investment of equity. Also EBL is more efficient than NSBL in effectively mobilizing the total assets and total deposit, since the net profit generation from mobilizing equal amount of total assets and total deposit is higher in EBL than in NSBL. Thus, it can be inferred that the profitability management of EBL is much robust than that of NSBL. Again, the overall

capitalization rate of EBL is lower than that of NSBL, which indicates that the capital structure of EBL is better than that of NSBL. The statistical analysis aids to conclude that the net profit is not solely dependent on the D/E ratio, since the calculated correlation coefficient between these two variables is lower than the 6 P.E. of the corresponding banks. However, the effect of total deposit to total assets on net profit is higher in EBL than in NSBL. However, the relationship between these two variables is statistically insignificant.

Analyzing the primary data, it can be inferred that that most investors are aware about the interest cost and risk that debt capital carries, and thus they have desired secured capital structure by financing through more equity capital. Further, it can be presumed that issuing public share is the best method for increment in equity capital. In addition, the bank focuses on borrowing short term credit rather than in long term credit or issuing debenture to meet the debt capital requirement. Also, it can be inferred that the adoption of the moderate policy would be the best option for the bank for having strong capital structure. Among different choices, it can be concluded that the management should give more emphasis to minimize cost of capital for having sound capital structure. Finally, it can be assumed that growth and stability of the bank mainly influences the capital structure of such bank. And the capital structure of the banks has substantial impact on profitability.

5.3 Recommendations

On the basis of the analysis, the following recommendations have been pointed to improvise the capital structure and its impact on the profitability;

- Both the banks have used long term debt in low in comparison to the equity capital. It would be worthwhile if the bank gauges the ratio of debt to equity ratio that generates higher profit and then practices such ratio.

- The preponderance of long term debt to total debt in both the banks is just meager. Both NSBL and EBL should raise the amount of long term debt to minimize the risk, as the short term debt carries high risk.

- EBL needs to keep adequate current assets to meet the debt requirement and thus have sound solvency position in comparison to that of NSBL. Similarly, NSBL needs to decrease the operating costs to increase EBIT and thus to have robust position to meet the interest in long term debt.

- NSBL has debilitating image in earning in comparison to that of EBL. Thus, NSBL needs to reengineer its capital structure, diminish cost, increases investment in high-yield profitable sectors to have strong profitability.

- The impact of debt-equity ratio is indifference to the profitability, which immediately demands both the banks to restructure the capital structure, might be to increase the long term debt.

- Both the banks need to adopt moderate policy. This means that the banks need to have balance between the equity and debt capital to minimize the risk and increase the profit.

- The EPS is directly proportional to the net profit of the bank, as the net profit increases the EPS also raises. Therefore, the banks should give a proper attention towards their operation to earn adequate amount of profit.

- Variable-rate debt comes with certain risks, including basis risk, put risk, bank risk, credit risk, and failed auction risk. A diversified variable-rate debt portfolio can mitigate these risks and lower the banks' overall cost of capital.

BIBLIOGRAPHY

Books:

Bearly, E.W., Stewarts, K. and Myers, Richard V. (1985). *Financial Markets and Institutions.* New Jersey: Prentice Hall Inc.

Cassar, G. and Holmes, S. (2003). *Capital Structure and Financing of SMEs.* Stocksfield: Acumen Publishing Limited.

Francis, Jack Clark (1991). *Investments Analysis and Management.* New York: Mc-Graw Hill.

Francis, Jack Clarke (1991). *Investments Analysis and Management.* New York: Mc-Graw Hill.

Hall, G., Hutchinson, P. and Michaelas, N. (2004). *Determinants of the Capital Structures.* Beamsville: Believers Bookshelf.

Harris, M. and Raviv, A. (1991). *The Theory of Capital Structure.* London: A & C Black Publishers Limited.

Huang, S. and Song, F. (2002). *The Determinants of Capital Structure.* Toronto: Annick Press Ltd.

Joseph, J. (1998). *Financial Institutions and Markets.* USA: Blackwell Publishers.

Keister, L. (2000). *Capital Structure in Transition: Financial Strategy in China's Emerging Economy.* Kunming: Aurora Publishing House.

Koch, W. Timothy & Macdonald, S. Scott (2004). *Bank Management.* Cleveland: Thomson South-Western.

Korajczyk, R. and Levy, A. (2003). *Capital Structure Choice: Macroeconomic Conditions and Financial Constraints.* Oakton: Academia Book Exhibits.

Mathur, V.R. Mutalik (1979). *Banking Development in India.* Bombay: Pc Mansktol and Sons Pvt. Ltd.

McKinnon, R.I. (1996). *Money and Capital in Economic Development.* Washington D.C: Brookings Institutions.

Michaelas, N. (1998). *Financial Policy and Capital Structure Choice.* Basingstoke: A.A. International Publishing.

Mishkin, Frederic S. (1998). *Financial Management Theory and Practice.* New York: Mc-Graw Hill.

Myers, S. (1984). *The Capital Structure Puzzle.* London: A.P. Watt Limited.

Omet, G. and Nobanee, H. (2001). *The Optimal Capital Structure.* Oslo: Boksenteret EP & Co. A/S.

Pandey, I. M. (1992). *Financial Management.* New Delhi: Vikas Publishing House Pvt. Ltd.

Richard, A.B. (1996). *Principles of Corporate Finance.* New Delhi: Tata Mc-Graw Hill Publishing Company Limited.

Saunders, Anthony & Cornett, Marcia M. (2004). *Financial Markets and Institutions.* New Delhi: Tata Mc Graw Hill Publishing Company Limited.

Soloman, Ezra (1993). *Theory of Financial Management.* Ohio: Columbia Press.

Van Horne, James C. (1999). *Financial Management and Policy.* New Delhi: Prentice Hall of India P. Ltd.

Weston, J. Fred and Brigham, Eugene F. (1978). *Managerial Finance.* Chicago: The Dryden Press.

William, Diamond (1990). *Development of Finance Company.* Maryland: The John Hopkins Press.

Reports, Journals and Articles:

Abor, Russell (2008). Determinants of the Capital Structure of the Ghanaian Firms. *Banking and Financial Law Journal of Ghana.* **Accra: Legal Research Centre. IV (4): 1-34.**

Driffield, Sloan & Pal, Eric S. (2008). Evolution of Capital Structure in East Asia: Corporate Inertia or Endeavors? *Journal of Asian Finance.* **Tokyo:** <u>**Fukuinkan Shoten Publishers, Inc.**</u> **XI (13): 76.**

EBL (F.Y. 2004/05 - F.Y.2008/09). *Annual Reports.* **Kathmandu: Everest Bank Limited.**

Frank, Murray Z. and Goyal, Vidhan K. (2008). Profits and Capital Structure. *Journal of Financial Services Research.* **Boston: Kluwer Academic Publishers. III (2): 277-341.**

Hutchison, David E. and Cox, Raymond A.K. (2010). The Causal Relationship Between Bank Capital and Profitability. *Annals of Financial Economics.* **Ontario: Annick Press Ltd. XXI (2): 1-25.**

Mahmood, Wan Mansor and Zakaria, Rozimah (2009). Profitability and Capital Structure of the Property and Construction Sectors in Malaysia. *Journal of Global Finance.* **Selangor:** <u>**BHS Book Printing Sdn. Bhd.**</u> **VII (3): 1-41.**

Mesquita, José Marcos Carvalho de & Lara, José Edson (2006). Capital Structure and Profitability: The Brazilian Case. *Cato Journal.* **São Paulo:** <u>**Sá Editora**</u>**. XIV (9): 152-177.**

NSBL (F.Y. 2004/05 - F.Y.2008/09). *Annual Reports.* **Kathmandu: Nepal SBI Bank Limited.**

Raheman, Abdul, Zulfiqar, Bushra and Mustafa, Allah (2007). Capital Structure and Profitability: Case of Islamabad Stock Exchange. *International Review of Business Research.* Islamabad: Association for Academic Quality. III (5): 347-361

Theses:

Basnet, Prabhesh Subba (2005). *Capital Structure and the Cost of Capital of Nepalese Listed Companies.* An Unpublished Masters' Degree Thesis submitted to Faculty of Management, T.U.

Kansakar, Dipesh (2007). *Capital Structure of Joint Venture Banks of Nepal.* An Unpublished Masters' Degree Thesis submitted to Faculty of Management, T.U.

Simkhada, Sugandha Raj (2009). *Capital Structure of Nepalese Enterprises.* An Unpublished Masters' Degree Thesis submitted to Faculty of Management, T.U.

Subedi, Chandan (2004). *Capital Structure and Cost of Capital.* An Unpublished Masters' Degree Thesis submitted to Faculty of Management, T.U.

Websites:

http://www.nepalsbi.com.np/annual_report.php

http://www.everestbankltd.com/financials/annual_report.html

APPENDIX – I
QUESTIONNAIRE

Dear Sir/Madam,

This is to bring your kind information that this is an attempt to identify *Impact of Capital Structure on Profitability of the Commercial Banks* for the partial fulfillment of requirement of MBS degree, TU. You are kindly requested to fill up the following questionnaire with the best answer in your view. I would be grateful to you for the contribution of your valuable time and effort.

Respondents;

Name (Optional):

Designation: Shareholder/Depositors (Please Tick One)

1. The capital structure of the bank should reflect mainly……………………………
   a) High Equity Capital   [   ]
   b) High Debt Capital   [   ]
   c) Don't Know   [   ]

2. To raise the equity capital, the bank should give weigh more to……………………
   a) Issue New Share   [   ]
   b) Increase Reserve   [   ]
   c) Right Offering   [   ]

3. The debt capital of bank should be mainly increased from ………………………..
   a) Debenture   [   ]
   b) Long-Term Borrowing   [   ]
   c) Short-Term Borrowing   [   ]

4. For Optimum Capital Structure, the bank should adopt …………………………..
   a) Conservative Policy   [   ]
   b) Moderate Policy   [   ]
   c) Aggressive Policy   [   ]

5. To have Optimal Capital Structure, the bank should give emphasis on which of the following?

   a) Minimizing Cost of Capital   [   ]

   b) Minimizing Risk   [   ]

   c) Flexibility of Capital Structure   [   ]

   d) Capacity to Pay Debt   [   ]

   e) Control   [   ]

6. Which of the following most influences the determination of capital structure?

   a) Component Cost of Capital   [   ]

   b) Nature and Size of Business   [   ]

   c) Growth and Stability   [   ]

   d) Management Attitude   [   ]

   e) Corporate Tax Rate   [   ]

   f) Cash Flow Stability   [   ]

   g) Others (Specify)…………..   [   ]

7. To what extent does the capital structure of the bank affect the profitability?

   a) High   [   ]   b) Medium   [   ]   c) Low [   ]

Thank you for your kind information.