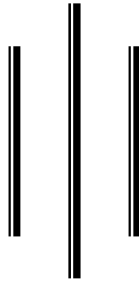


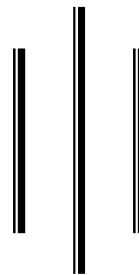
Capital Structure Management of commercial banks of Nepal

**(A Comparative Study between Nepal Bangladesh Bank Limited and
Himalayan Bank Limited)**



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A Thesis Submitted to:

Office of the Dean
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In partial fulfillment of the requirements of the degree of
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DECLARATION

I hereby declare that the work reported in this thesis entitled CAPITAL STRUCTURE Management of Commercial Banks of NEPAL: "A Comparative Study between Nepal Bangladesh Bank Limited and Himalayan Bank Limited", submitted to Central Department of Management, Tribhuvan University is my original work. It is done in the form of partial fulfillment of the requirement for the Master of Business Studies (MBS) under the supervision and guidance of Prof. Shanker Thapa.

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Last but not least I am responsible for any error and I apologize for any of them committed that may have remained in this work.

Grishma Karki

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3.

LIST OF ABBREVIATIONS

CDM	Central Department of Management
Co.	Company
DPR	Dividend payout Ratio
EBIT	Earning Before Interest and Taxes
Ed.	Edition
i.e.	For Example
EQ	Equity Capital
EV	Earning Variability
FOM	Faculty of Management
FY	Fiscal Year
G	Growth in Total Assets
GDP	Gross Domestic Product
GNP	Gross National Product
GOBs	Government Owned Bonds
Govt	Government
HBL	Himalayal Bank Limited
i.e.	That is
JVBs	Joint Venture Banks
Ko	Average Cost of Capital
L/C	Letter of Credit
Liq	Liquidity Ratio
LogS	Size of Capital Employed
Ltd.	Limited
L1	Leverage TD/CE
L2	Leverage TD/EQ
NBBL	Nepal Bangladesh Bank Limited
NEPSE	Nepal Stock Exchange Limited
NIDC	Nepal Industrial Development Corporation
NG/N	Nepal Government
NOI	Net Operating Income
NRB	Nepal Rastra Bank

PE	Probable Error
PEs	Public Enterprises
RCJVBs	Foreign Collaborated Joint Venture Banks
ROA	Return on Assets
ROE	Return on Equity
SEBON	Securities Board /Nepal
SHS	Shareholders'
TD	Total Debt
V	Value of Firm
vol.	Volume
vs	"Versus", against
WACC	Weighted Average Cost of Capital

CHAPTER ONE

INTRODUCTION

1.1 General Background

Capital structure is very crucial part of the financial management as the various composition of debt and equity capital may impact differently on risk and rate of return to equity shareholder. The funds required to business enterprises are raised either through the ownership securities (i.e. equity share and preference share) and creditor ship securities (i.e. debenture and bonds). A business enterprise has to maintain a proper mix of both the securities in a manner that the cost and the risk perception to the shareholder are minimized the mix of different securities portrayed by the firm's capital structure (Koirala, 1990).

Capital structure is the composition of the debt and equity securities and is considered as financing decision undertaken by the financial manager .They must decide when, where, and how to acquire the funds to meet the firm's investment needs. The financial manager must strive to obtain the best financing mix or optimum capital structure for his firm. The firm attains optimum capital structure when the debt-equity proportion maximizes the market value of the shares. The usage of equity funds and at the same time also increases risk. A proper balance must be strike between the return and risk in order to maximize the market value of the shares.

Financial sector is a part of the industry and is regarded as the backbone or engine of the growth of the economy whether it is developed or developing or in transition or emerging. It plays a very important role in the development of all sector of whole economy and actually works as a lubricator by providing financial resources. It operates as an intermediary between financial surplus units (lender/saver) and financial deficit units (borrower/spender). It provides different avenues to saver to invert their saving in financial products and services as per their needs and makes available to the borrower

investor in most competitive prices. Financial markets playing field to financial institutions and their customer (depositor, borrower, investor etc) with all types of financial instruments such as deposits, loans and jounces, securities, insurance policies, corporate bonds and shares etc. A modern financial sector provides electronic banking services (E-banking), ATM services, credits cards, debits cards, innovative insurance products and services, attractive pension schemes and derivatives, hedging and financial future. It can provide a wider range of financial serves at lower costs while minimizing financial risk to a large number of customers (NRB, 2004). Banks play an important role in the economic development of a country. "Sayer" has pointed out in this regard that "Banks are not merely trader of money but in an important sense, are also the manufacturers of money" (Sayer, 1967). Bank serves as a mechanism through which all the financial systems are controlled and it directs its member institute towards the economic development of any country.

The banking sector is playing very crucial role in the economic development of the country. It accumulates fund from various units of the society and transfer it to the productive sector. This way it tends to increase employment opportunity, industrial activities, trade business etc. Nepal Bank Limited is the first bank established in the year 1937 A.D. and dominated the whole financial sector in the country for almost 30 year. It was only in 1967 that the second commercial bank. Rastriya Banajiya Bank was established with the total government control. These banks had opened numerous branches covering almost all-accessible parts of the country.

After liberalization policy has been initiated in mid 1980s. It created the path to the foreign investor also. In 1984 A.D., the Nepal Arab bank limited was establishing as the first joint venture commercial bank of the country. The bank was established with fifty percent equity participation of a foreign bank. The establishment of this joint venture bank brought foreign investment, modern banking practices and technical skills in the banking industry. There after Nepal Indosuez bank limited (Renamed Nepal investment bank limited) and Nepal Grindlays Bank Limited (Renamed Standard Chartered Bank Limited) established in 1985 A.D. and 1987 A.D. as the joint venture commercial banks in the country. The banking operations of these three joint venture commercial banks helped to get modern banking services in the country. In course of time many banks

have been established with various perspectives. Today there are altogether twenty-four banks operating in the country and most of them are joint venture banks. Banks are having competition and most of them were successful in providing customer satisfaction by providing various services.

Capital structure mostly affects the value of a firm. So there should be a most proper way to maximize its profit and get higher profitability is the most necessary part for the firms, because without

profit the firms cannot run further. Every firm wants to make many profits but they also consider customer ability to pay for product. Therefore to fix the price of product, firms must be sincere and determine the price which cannot get loss and not high to pay for customer.

Financial manager must be very sensitive in financial decision since inappropriate composition of debt-equity in capital structure may lead to bankruptcy of the firm. The optimum capital structure is attained at the level where the risk perception of shareholder is minimized and returns are maximized. As the return to shareholder is maximized ultimately the market value of the firm is maximized. The capital structure affects the cost of the firm. As far as the firm is able to employ the capital with low cost it can generate higher income by reducing the cost paid. The debt is considered as low cost bearing capital and riskier capital in terms that it bears fixed interest rate. Therefore it is said to be a two-edge sword. The financial manager must be sensible while selecting the optimal capital structure for the firm. The success of any business depends upon soundness of the capital structure.

1.2 Statement of the Problem

Every business firm can take advantages through making appropriate capital structure decision because long run profitability depends on its capital structures besides other factors. Generally higher debt-equity ratio is more risky than equity. On the other hand low debt to equity ratio is considered to be disadvantageous from the owner's point of

view especially when the firm is earning higher rate of return on capital employed. So, an appropriate balance of debt and owner equity is essential to avoid financial risk.

Manufacturing companies are very important for economic development of the country. The canalized funds from saver unit to user unit are productivity in the country increases. The study of capital structure for manufacturing company business is very essential since the business is operated with outsider funds the capital structure decision is important for long run profitability and solvency of the business. The financial manager must be able to

maintain appropriate proportion of debt-equity to avoid financial risk.

Therefore, highly geared up capital structure with decreasing trend of profit on deposits represents the weak aspects of the manufacturing companies, which inspired the researcher to conduct this study. This study has tried to answer the following research questions.

1. How is the capital structured in Nepal Bangladesh Bank Limited and Himalayan Bank Limited?
2. What is the profitability state of Nepal Bangladesh Bank Limited and Himalayan Bank Limited?
3. What is the relationship between capital structure, profitability, and cost of capital of sampled company?

1.3 Objectives of the Study

The optimal capital structure is that level of debt-equity which generates high earning to shareholder and maximizes the market value of the share. The optimal structure differs in individual firms within the industries. The main objectives of the study are to highlight the balance between capital structures degree of risk return and profitability. More specifically present study purpose the following research objectives:

1. To evaluate whether the capital structure affects the profitability, EPS, P/E ratio of the firms.
2. To test whether the profitability fluctuates with the capital structure of the sample companies.
3. To analyze relationship between the capital structure and profitability index, size of the employed and cost of capital of the sampled companies.

1.4 Scope and Significance of the Study

The capital structure deeply impact over the profitability and long term financial position of the firm. To judge the long term financial position of the firm, capital structure analysis would help. A firm, having good return efficient management is considering being better and brighter in future. Therefore this significance earns account. This study on behalf of the firms' capital structures, risk and profitability and its relationship are justified as a specific subject matter.

The study helps the researcher, investor, creditor, customer and other stakeholder to analyze the financial position of the firm and they also make know the impact of capital structure on the profitability of the firm.

In addition, to this student's knowledge, comparative case study between NBBL, and HBL regarding capital structure, risk and profitability and its relationship have not been studies so far. The study will help the researcher to specify the entire glory of banks in Nepal taking these two banks on an average. It helps to show the strengths & weakness of these two banks. Similarly, it is of significant use to show the financial healthiness to

its investor and at the same time to the concerned management as management student point of view.

1.5 Limitation of the Study

Researcher has tried to eliminate the limitation of the study to some extent but the study has been conducted with certain limitations because every study is in its certain limitations.

) The study has been conducted using only secondary data (i.e. books, financial statements, annual report of companies and websites).

) As the study is made for the partial fulfillment of the requirement of Master in

Business Studies (MBS), time is the most important factor but the time provided by the institution is limited.

) The scope of the studies limited within the sampled companies.

) The studies cover the data of five year from Financial Year 2005/06 to 2009/10.

1.6 Organization of the Study

This study is organized into five chapters. These chapters have been categorized as follows:

Chapter I: Introduction:

This chapter proves background and information on the subject matter of research, undertakes and presents general idea and information about capital structure tools and techniques. So this section includes a brief description of structure. Likewise statement of the problem, objective of study, significant of study and the limitation of the studies are studied under this section.

Chapter II: Review of Literature:

This section includes the reviews of relevant previous studies and to find the research gap. So past studies in the capital structure been reviewed to examine what new can be contributed. It includes review of thesis/dissertation, newspaper and articles.

Chapter III: Research Methodology:

In this chapter the research methodology employed for the study has been described. It includes research design, data collection and source of data, data processing procedure, gathering, presentation and analysis of data.

Chapter IV: Presentation and Analysis of Data:

This chapter deal about the presentation, tabulation, interpretation, and analysis of data through different statistical tools and techniques.

Chapter V: Summary, Conclusion and Recommendation:

This chapter is the most important part of the study where valuable summary, conclusions and recommendation are drawn. Major findings are also present in this section.

Bibliography, Appendix and other supporting documents have been also incorporated at the end of the study.

CHAPTER TWO

REVIEW OF LITERATURE

In this chapter, the review of various books, research studies and articles have been used to make clear about the concept of Capital Structure as well as to recall the previous studies made by various researchers. Literature review is basically a 'stock taking' work of available literature. So, it provides significant knowledge in the field of research.

The purpose of literature review is thus to find out what research studies have been conducted in ones field of study, and what remain to be done (Wolf and Pant, 2000).

To make meaningful research study, the conceptual review has been done through the study of various books and articles. In addition, researcher conducted by the previous researcher in the field of Capital Structure management has also been reviewed by studying their research work, thesis, dissertation etc. So, this chapter 'Review of Literature' has been divided into the following two sections.

- Theoretical review
- Review of related studies

2.1 Theoretical Review

In this section, various books written by different writers are well reviewed. This makes clear about the conceptual foundation of this study. It provides the chance of examining views of different writer and scholar so that the new idea can be generated.

Under this section, concept of Capital Structure, assumptions and definitions, optimal capital structure as well as Capital Structure, business and financial risk, theories of capital structure, approaches of capital structure, factor affecting Capital Structure are well reviewed with the help of various books.

2.1.1 Theories of Capital Structure

In simple sense finance refer to money. Finance is an important factor of production. Finance is the lifeblood for the existence of company. A new business requires finance, and still more finance is needed if the firm is to expand. Finance is a scarce source and much more essential to maintain smooth operation of any firm. The required funds can come from different sources and utilized so effectively that it could generate maximum return. However all finance can be classified into two basic type, Long-term debt and equity capital.

Capital Structure is concerned with the analyzing the financial composition of the

company. It is considered as the mix of long-term source of funds. The long-term source of fund are debt, preference shares, and equity shares that are used to finance the firm. A firm can raise required funds by issuing various types of financial instruments. So, firms can raise funds either by debt finance or by share financing. Raising fund as debt has several advantages and disadvantages. Debt holder, also known as creditor, receives interest as their return from the company where they invested capital. Interest is tax deductible which lower the effective cost of debt, debenture holder are limited to the fixed return, debenture holder do not have voting right, so stockholder can control the business with less money than would otherwise required. These are the advantages of raising capital through debt.

The higher the debt ratio, the greater the risk thus higher the interest rate, if the company fall on hard times, and if its operating income is insufficient to cover the interest charges, the stockholder will have to make up the shortfall, and if they control, the company may be forced in to bankruptcy. Good times may be just around the corner, but too much debt can keep the company from getting there and can wipe out stockholder in the process. These are the disadvantages of financing by debt capital. Shareholders are the actual owner of the firm. But preference shareholders have reference right to get return from the company than the equity shareholder. So equity shareholder receives the remaining portion of net return after paying the preference dividend to preference shareholder, which is predetermined. So the company should make appropriate finance mix while raising capital.

According to the above discussion, funds can be raised through long-term debt or financing. Risk is associated in proportion of its uncertainty in being paid off. The required rate of return expected by investor according to their risk is cost of capital. Therefore a firm should try to obtain necessary funds at lower cost. The cost of capital is fully dependent upon the proportion of long-term debt and equity capital i.e. financial leverage, which is actually the Capital Structure that affects cost of financial value of the firm and earning per share. "One of the most perplexing issue facing financial managers is the relationship between Capitals Structure, which is the mix of long-term debt and equity financing, and the stock prices. (Iqwal, 1979).

The concept of Capital Structure has important implication in the theory of financial management. It is basically known as Capital Structure, financial plan or leverage. But Capital Structure can be defined as the broader sense than capital structure. The owner of the company has the main object of maximizing of shareholder wealth. So, it is a wide decision to select such a financial mix, which maximizes shareholder's wealth.

The financial structure is a combination of long-term debt, short-term and equity and capital structure is only the part of financial structure i.e. compromised to the total combination of preferred stock, common stock and long-term debt. If current liabilities are added from it we get financial structure. So, financial structure is a whole body of capital structure, which includes both long-term sources of funds such as equity share capital, preference share capital, long-term debt and current liabilities. A firm's capital structure may be defined as the mixture of long-term debt and equity capital.

Capital structure policy involves a trade-off between risk and return, using more debt raises the risk of the firm's earning stream, but a higher debt ratio generally leads to higher expected rate of return. Higher risk associated with greater debt tends to lower the stock's price but the higher expected rate of return rises it (Weston and Irigham, 1973).

The target capital structure varies from company to company. Capital structure is the permanent and temporary financing of the firm, represented primary by long-term debt, preferred stock and common stock. The capital structure of the firm, defined as the mix of financial instruments use to finance the firm, is simplified to include long-term interest bearing debt, common stock and preferred stock. "Capital structure is the combination of long-term sources of financing i.e. debt, preferred stock and common stock that are used to finance the firm" (Steven and Robert, 1981). The natures of capital structure differ from company to company. However a reasonable satisfactory capital structure can be determined by considering relevant factor and analyzing the impact of alternative financing proposals on the earning per share. The most important goal of the company is the maximization of the value of the firm, to maximize the value of the company appropriately. Although short-term source of financing is necessary for day to day operation and running of the organization, which alternatively affect for value maximization objective of the firm, to maximize the value of the company; the overall

cost of capital of the company must be minimized as a result the earning per share will be maximized.

The objective of the firm is to maximize the value of equity share; the firm should select a capital structure, which helps in achieving the objective of financial management. If the capital structure decision affects the total value of the firm, a firm should select such a financial mix that will maximizes the shareholder wealth.

Therefore, capital structure can be defined as the combination of long-term source of funds i.e. preference share capital, equity share capital and long- term debt capital.

The capital structure mix affects the total value of the firm, its earning per share and overall or weighted average cost of capital. It should be well planned. It should aim to maximize the value of the firm, earning per share by minimizing the overall cost of finance without affecting the appropriate capital structure, which is advantageous for the firm. A sound or appropriate capital structure should have the following features (Johnson, 1973)

Return: The capital structure of the company should be most advantageous, subject to other considerations; it should generate maximum returns to the shareholder without adding additional cost to them.

Risk: The use of excessive debt threatens the solvency of the company. To the point debt does not add significance risk it should be used, otherwise its use should be avoided.

Flexibility: The capital structure should be flexible. It should be possible for the company to adopt its capital structure with a minimum cost and delay if warranted by a changed situation. It should also be possible for the company to provide funds whenever needed to finance its profitable activities.

Capacity: The capital structure should be determined within the debt capacity of the company, and its capacity should not be exceeded. The debt capacity of the company depends on its ability to generate future cash flows. It should have enough cash to pay creditor's fixed charges and principal sum.

Control: The capital structure should involve minimum risk of loss of control of the company. The owner of closely held companies is particularly concerned about dilution of control.

2.1.2 Capital Structure in Practice

Wide variations in asset structure and capital structure proportions are observed in practice. This generalization is supported by the book value of data presented below. First, the pattern of wholesale trade, retail trade and all manufacturing are compared. The ratio of shareholder's equity to total assets rises from 26 percent for retail trade to 33 percent for wholesale trade to 41 percent for all manufacturing. These variations reflect in part the different in nature of wholesaling, retailing and manufacturing activities. Note the general rise in debt ratios especially in manufacturing and retailing between 1984 and 1990. The sharp rise in retail trade reflects some highly leveraged takeover such as those by Robert Campeau of Allied and Federated stores (Bureau of the census, quarterly financial Report).

2.1.3 The Optimal Capital Structure

Capital structure is the composition of long-term debt and equity securities that make up the firm's financing of its assets. Both long-term debt and equity securities are used in most large companies. The choice of amount of long term debt and equity is made after the comparison on certain character of each kind of security of internal factor related to the firm's operation and external factor that can affect the firm.

Thus capital structure decision affects the value of firm, earning per share and cost of capital. The objectives of the company are always related to maximizing the value of firm, earning per share and minimizing the overall cost of capital. To achieve this objective, company should make the appropriate composition of capital structure which also known as optimal capital structure. Optimal capital structure would be obtained at the combination of long term debt and equity that maximize the total value of the firm, (value of debt plus value of stock) or minimize the weighted average cost of capital

(Pandey, 1991).

Optimal capital structure is the one that strikes the optimal balance between risks and returns and thereby maximizes the price of the stock.

Optimal capital structure can be defined as that mix of long term debt and equity, which will maximize the market value of the company. If such an optimal does exist, it maximizes the value of the company and hence the wealth of its owner, it minimizes the companies' cost of capital which in turn increases its ability to find new wealth creating investing opportunities (Ezra, 1969).

So, the optimal capital structure is that combination of capital structure which maximizes the value of the firm, earning per share, and minimizes the weighted average or overall cost of capital. Therefore, the firm should determine appropriate capital structure, to achieve its targeted objectives of maximizing the shareholder. Although, it is theoretically also possible to determine the optimal capital, as in practical manner we cannot estimate this structure with precision.

2.1.4 Assumptions and Definitions

In order to have the better understanding about capital structure theories, it is necessary to make some assumptions. The theories of capital structure make certain assumptions to exhibit the influence of mix debt in the capitalization on the valuation of the firm. To present the analysis as simply as possible we have the following assumptions (Van Horne, 2001).

There are no corporate or personal taxes and bankruptcy cost (later, we remove these assumptions).

The ratio of debt to equity for the firm is changed by issuing debt to repurchase stock or issuing stock to payoff debt. In other words, a change in capital stock is affected immediately. In this regard, we assume no transaction costs.

The firm has a policy of paying 100 percent of its earning in dividends. Thus, we abstract

from the dividend decision.

The expected values of the subjective probability distribution of expected future operating earning for each company are the same for all investor in the market.

The operating earning of the firm is not expected to grow. The expected value of probability distribution of expected operating earning for all future periods are same as present operating earnings.

One types of capital are employed; long-term capital (long term debt and shareholder equity)

The firm is expected to continue indefinitely.

In this analysis of capital structure theories, we shall use the following basic definitions.

S = Market value of stock

D = Market value of debt

V = Total market value of the firm ($S+D$)

K_e = Equity capitalization rate.

K_0 = Overall capitalization rate.

K_d = Cost of debt capital (both short & long-term).

INT = Total amount of annual interest.

$EBIT$ = Earning before interest and taxes.

EBT = Earning before taxes.

By using the above symbols, cost of capital and their respected values can be calculated by using the following formulas.

Cost of debt (K_d) = INT .

$$\text{Cost of equity (K}_e\text{)} = \frac{EBIT - \frac{INT}{D}}{V} = \frac{EBT}{S}$$

$$\text{Value of debt (D)} = \frac{INT}{K_D}$$

$$\text{Overall cost of capital (K}_0\text{)} = \frac{EBIT}{V}$$

The overall cost of capital is the weighted average cost of equity and cost of debt.

Thus,

$$K_0 = K_D(D/V) + K_E(S/V)$$

The value of the firm is combined value of debt capital and share capital.

So,

$$V = D + S$$

$$\text{Or, } \frac{EBIT}{K_0}$$

2.1.5 Business Risks and Financial Risks

Firms have to bear different types of risk while financing and operation and operation. In a view point of capital structure analysis we can introduce two new dimensions of risk: Business risk or the risk of the firm's stock if the firm uses no debt, and financial risk, which is the additional risk placed on common stockholder as a results of firm's decision to use debt. In addition to the common stock, preferred stock also adds to financial risk of the company. Conceptually, the firm has certain of risk inherent in its operation: this is its business risk. If uses debt then, in effect it partitions its investor into two groups and concentrates most of its business risk on one class of investor - the common

stockholder. However the common stockholders generally demands compensation for assuming more risk and thus acquire a higher rate of return.

2.1.5.1 Business Risk

Business risk is that portion of risk, which occur due to the operation of the firm, if it uses no debt capital. In other words, it is the risk of the firm's operation if it uses no debt. Business risk is inherent in the operation of the firm.

Business risk is defined as the uncertainly inherent in projection of future return on assets or return on equity (ROE) if the firm uses no debt. It is an important determinant of capital structure. Business risk can be defined as:

$$ROIC = \frac{NOPAT}{Capital}$$

Where,

ROIC = Return on invested capital

NOPAT = Net operating profit after tax i.e. net income to equity
shareholder + after tax interest payment.

If the firm uses no debt, then its interest payment will be zero, its capital will all equity and its ROIC will be equal to ROE (return on equity)

$$ROIC = ROE = \frac{NetIncome\ to\ common\ shareholders}{common\ equity}$$

Therefore the business risk of unlevered firm can be measured by standard deviation of its ROE.

Thus, business risk of unlevered firm = sd ROE

Business risk varies not only from industry to industry but also among firms in the given industry. It can change over time because it depends upon various factors. It depends upon number of factors, the more important of which are listed below.

-) Demand variability
-) Sales price variability
-) Input cost variability
-) Ability to adjust output prices for changes in input cost
-) Ability to develop new product in the timely cost effective manner
-) Foreign risk exposed
-) The extent to which costs are fixed: operating leverage.

Operating Leverage

Business risk depends in part on the extent to which a firm builds fixed costs into its operations. If fixed costs are high, even a small decline in sales can lead to a large decline in return on equity. So, other things remaining constant, the higher the firm's fixed costs, the higher its business risk. If the high percentage of total costs is fixed, then the firm is said to have a high degree of operating leverage. "In business terminology, a high degree of operating leverage, other factors held constant, implies that a relatively small change in sales results in the large change in ROE" (Ibid - 583).

Other things held constant, a higher the operating leverage, the higher its business risk. Or the higher the degrees of operating leverage, the higher the operating risk. Where, degree of operating leverage defines as the percentage change in operating income (EBIT) associated with a given percentage change in sales.

$$\text{Degree of Operating Leverage} = \frac{\text{Percentage change in EBIT}}{\text{Percentage change in Sales}}$$

Operating leverage refers to the use of fixed costs in the operation of the firm. If the firm has fixed costs, it would have operating leverage and percentage change in the operating profit would be more for the given change in sales. A firm will have higher operating leverage, if the total costs have greater percentage of fixed costs. The concept of operating leverage was originally developed for use in capital budgeting. Still once a corporation's operating leverage has been established, this exerts a major influence on its capital structure decision.

2.1.5.2 Financial Risk

Instead of business risk companies have to bear financial risk, if they use debt capital while financing. If the company is unlevered, that company bears the business risk only but that should bear the financial risk as a result of decision to finance with debt. So, financial risk is the additional risk placed on common stockholder as a result of decision to finance with debt.

Financial leverage refers to the use of fixed income securities, debt and preferred stock and financial risk is the additional risk placed on the common stockholder as a result of using financial leverage. Conceptually, the firm has a certain amount of risk inherent in its operation; this is business risk, which is defined as an uncertainty inherent in projection of future ROE. By using debt and preferred stock (financial leverage) the firm concentrates its business risk on common stockholder.

Therefore, financial risk can be defined as the portion of stockholder's risk over and above the basic business risk, resulting from the use of financial leverage (Weston and Brigham, 2004).

Financial Leverage

Finance risk depends upon the financial leverage of the firm. If the financial leverage exists financial risk will occur. Operating leverage affects the business risk whereas financial leverage affects the financial risk.

The use of fixed charges sources of funds, such as debt and preference capital along with the owners' equity in the capital structure is described as financial leverage. Financial leverage can be defined as the extent to which income securities (debt and preferred stock) are used in the firm's capital structure.

Financial leverage can be measured by using various tools. The most commonly used measures of financial leverage are:

1 . Debt ratio (DR) : The ratio of debt to total capital

$$\text{i.e. DR} = \frac{D}{V} = \frac{D}{D + S}$$

2. Debt to equity ratio (DER): The ratio of debt to equity

$$\text{i.e. DER} = \frac{D}{S}$$

3. Interest coverage ratio (TIE):

$$\text{i.e. TIE} = \frac{EBIT}{Interest}$$

Financial leverage affects the earning per share. When the economic conditions are good and firm's EBIT is increasing, its EPS increase faster with more debt in the financial structure. The degree of financial leverage is defined as the percentage change in earning per share that is associated with given percentage change in earning before interest and taxes (EBIT). DFL may be calculated by using any one of the following formulas:

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

$$\text{Or} = \frac{\text{Percentage Change in EBT}}{\text{Percentage Change in EBIT}}$$

DFL shows that to what extent the firm is able to bear its fixed changes. DFL of unlevered firm will be one and it will be greater than one in case of levered firm.

2.1.6 Approaches to Established Appropriate Capital Structure

Capital structure decision affects the value of the firm, its earning per share and overall capitalization rate of the firm. So, companies should plan properly to establish target capital structure. The target capital structure should affect the firm positively. Or it should be optimal or appropriate. While establishing the appropriate capital structure, a firm first should identify the sources of funds and then understand about the advantages and disadvantages of each source of funds. And the company should make a proper mix of those sources of funds while financing. Therefore, a company should test the effects of various alternative sources of financing and should select an appropriate combination or alternative financial plan, with the help of appropriate approach or technique.

Capital structure will be planned initially when a company is incorporated. The initial capital structure should be designed very carefully. The management of the company should set the target capital structure and subsequent financing decision. Financing decisions should be made with a view to achieve a target capital structure. The financial manager has also to deal with an existing capital structure.

The company needs capital to finance its activities continuously, every time when capital

is needed, the financial manager should tests the advantages and disadvantages of various sources of finance and select the most advantageous source of capital. Thus, the capital structure decision is a continuous process and it has to take whenever the company needs additional funds. Financial manager can use various approaches while establishing appropriate capital structure. But the selection of appropriate approach is necessary. The following most common approaches to decide about the capital structure are explained here.

- EBIT - EPS Analysis
- Cash Flow Analysis

2.1.6.1 EBIT - EPS Analysis

This is a most common approach to establish appropriate capital structure. This approach analyzes the impact of various financial plans on earning per share. This approach analyzes that what is an effect of debt or preferred stock financing on earning per share. The common goal of companies is to maximize the shareholder' wealth i.e. earning per share. So, the company should select that financial plan which maximizes the earning per share of the company.

One widely used means of examining the effect of leverage is to analyze the relationship before interest and taxes (EBIT) and earning per share (EPS). Essentially, the method involves the comparison of alternative methods of financing under various assumptions as to EBIT.

The EBIT- EPS analysis is an important tool in the hand of financial manager to get an insight into the firm capital structure management. He can consider the possible fluctuations in EBIT and examines their impact on EPS under different financial plans (Pandey, 1991).

To decide about the appropriate source of funds to finance, the financial manager first develop various alternative financial plans and judge the impact on the earning per share, by calculating earning per share for some hypothetical level of EBIT. Note that interest in debt is deductible before taxes while preferred stock dividends are deductible after

taxes. Then with the help of earning per share at different alternatives, it is essential to find out indifference point in EBIT. The indifference point of EBIT can be determined either graphically or mathematically.

Insight comes in comparing indifference point between two financial alternatives, like total debt versus common equity, with the existing and expected level of EBIT. The higher the level of EBIT in relation to indifference point the stronger the case that can be made for debt financing, all other things being the same. The lower EBIT is in relation to the indifference point the stronger the case for common stock financing. This is particularly true when the indifference point is below the existing level EBIT.

So, the EBIT-EPS analysis can be used to evaluate the various capital structures in light of the degree of financial risk they entail and the return they provide the firm's owner.

The EBIT-EPS analysis is one of the widely used methods employed to determine appropriate level of debt. Through the analysis, the financial manager seeks to compare alternative methods of financing under various assumptions as to EBIT and to obtain indifference level of leverage. Indifference point refers to the EBIT level at which EPS remains unchanged irrespective of debt-equity mix.

2.1.6.2 Cash Flow Analysis

Cash flow analysis is another approach to establish an appropriate capital structure. It indicates the capacity of the firm to pay fixed charges on basis of its ability of cash generation. When considering the appropriate capital structure, we should also analyze the cash flow ability of the firm to serve fixed charges. The greater the amount of senior securities the firm issues and the shorter their maturity, the greater the fixed charges of the firm. Where, fixed charges include payment of interest, preference dividend, principal payment and lease payment. They depend on both the amount of loan securities and term of payment.

The amount of fixed charges will be high if the company employs large amount of debt or preference capital with long-term maturity. Whenever, the company thinks of raising

additional debt, it should analyze expected future cash flows to meet the fixed charges. The inability to meet these charges, with the expectation of preference stock dividends, may result in financial insolvency. The greater and more stable the expected future cash flows of the firm, the greater the debt capacity of the company. It is quite risky to employ fixed charge source of finance by those companies whose cash inflows are unstable and unpredictable. It is possible for high growth and high profitable companies to suffer from cash shortage if its liquidity management is poor.

The cash flow analysis indicates when the firm will find it difficult to serve its debt. Therefore, it is useful in providing good insights to determine the debt capacity, which helps to maximize the market value of the firm (Upadhyay, 1999).

Cash flow analysis is helpful to determine the debt capacity if the firm debt capacity is the amount which a firm can serve easily ever under adverse condition; it is the amount that the firm should employ. Some ratios can be used to analyze the total debt capacity of the firm is through the use of coverage ratios. Among the coverage ratios, most widely used coverage ratio is time interest earned or interest coverage ratio, which can be calculated by using following formula.

$$\text{Time interest earned} = \frac{EBIT}{\text{Interest on debt}}$$

This ratio measures the ability to pay interest. It also measures the extent to which operating can decline before the firm is unable to meet its annual interest cost. Failure to meet this obligation can bring legal action by the firm's creditor, possibly resulting in bankruptcy. Note that earning before interest and taxes, rather than net income, is used in numerator. Because interest is paid with pre tax amount, the full amount of EBIT is available to pay interest.

Time interest earned ratio tells us nothing about the ability of the firm to meet principal payments on its debt. The inability to meet principal payment constitutes some legal default as failure to meet an interest payment. Therefore, debt service coverage ratio is useful to test the ability to serve debt. This ratio is:

$$\text{Debt Service Coverage} = \frac{EBIT}{\text{Interest} + \frac{\text{principle payment}}{1 - \text{tax rate}}}$$

If the company uses assets on lease, at that time total debt service coverage ratio can be calculated by adding lease payment on both denominator and numerator. The closer the ratio is to one, the worse thing are, all other thing the same. Even with the coverage of less than one, a company may still meet its obligations if it can renew some of its debt when it comes due.

A firm can avoid the risk of financial distress if it can maintain its ability to meet contractual obligation of interest and principal payments. Debt capacity therefore, should be tough in terms of cash flows rather than debt ratios. A high debt ratio is not necessarily bad. If firm can serve high debt without any risk, it will increase shareholder' wealth. On the other hand, a low debt ratio can prove to be burdensome for a firm, which has liquidity problem. A firm faces financial distress when it has cash flow problem.

The point to be emphasizes is that a firm should carry out cash flow analysis to get a clear picture of its ability to serve debt obligation even under the adverse condition, and thus, decide about the proper amount of debt in the capital structure. This can be done by examining the impact of alternative debt policies on the firm cash flow ability. The firm then chooses the debt policy, which it can service.

2.1.7 Factor Affecting the Capital Structure

Capital structure is the composition of long-term sources of funds i.e. long - term debt, Preference share capital and equity share capital. Capital structure decision affects the value of firm, earning per share and cost of capital. So, the capital structure decision is very important aspect of financial management. All the activities of financial manager of the company should be motivated to maintain the optimal capital structure. Optimal finance is that mix of debt and equity that maximize the value of the firm and earning per share and minimizes the overall cost of capital of the firm. At any point in time, the firm's management has a specific target may change over time. Here target capital structure can be defined as the mix of total debt, preference stock and common equity that the firm would like to have in its capital structure.

Although it is theoretically possible to determine the optimal capital structure, as a practical matter we cannot estimate this structure with precision. While maintaining the target capital structure the financial executive should consider various factors, which affects that target capital structure. Firms consider many factors, which can have the important, though difficult to measure, bearing on the optimal capital structure. Some of the important factor, which affects the target capital structure, is as follows:

1. Sales Stability

A firm whose sales relatively stable can safely take on more debt and incur higher fixed charges than a company with unstable sales. Utilities companies, because of their stable demand, have historically been able to use more financial leverage than industrial firms.

2. Assets Structure

Firms whose assets are suitable, as security for loans tend to use debt rather heavily. General-purpose assets, which can be used by many businesses, make good collateral, whereas special purpose assets do not. Thus real stable companies are usually highly levered, whereas companies involved in technological research employ less debt.

3. Operating Leverage

Other things the same, a firm with less operating leverage is better able to employ financial leverage because, as we saw, the interaction of operating and financial leverage determines the overall effect of declines in sales on operating income and net cash flows.

4. Growth Rate

Other things the same, faster growing firm must rely more heavily on external capital. Further the floating costs involved in selling stock exceed those incurred when selling debt. Thus rapidly growing firms tends to use somewhat more debt slower growing companies.

5. Profitability

One often observes that firms with very high rates of return on investment use relatively

little debt. Although there is no theoretical justification for this fact, on practical explanation is that very profitable firms such as IBM, 3M, and Kodak simply do not need to do much debt financing. Their high rate of return enables them to do most of their financing with retained earnings.

6. Taxes

Interest is deductible expense, and deductions are most valued by firms with high tax rates. Hence, the higher a firm's corporate tax rate, the greater the advantage of using debt.

7. Control

The effect of issuing debt versus stock might have a management's control position by influence of Capital Structure. If management currently has voting control (over 50 percent of stock) but is not in a position to buy more stock, it may choose debt for new financing. On the other hand, the management group may decide to use equity rather than debt if the firm's financial situation is too weak that the use of debt might subject the firm to serious risk of default, because if the firm goes into default, the manager will almost surely lose their jobs. However too little debt used, management runs the risk of a takeover. Thus, control considerations do not necessarily suggest the use of debt or equity, because the type of capital that best protects management is at all insecure, it will surely take account of the effect of Capital Structure on control.

8. Management Attitude

If the absence of proof that one Capital Structure will lead to higher stock prices than another, management can exercise its own judgment about the proper Capital Structure. Some management tends to be more conservative than others use less debt than the average firms in the industry, whereas for other management the reverse is true.

9. Lender and Rating Agencies Attitude

Regardless of manager's own analysis of the proper leverage factor for their firms, there is no question but that lenders' and rating agencies' attitudes are frequently influential

Capital Structure decision. In the majority of cases, the corporation discusses its Capital Structure with lender and rating agencies and gives much weight to their advice.

10. Market Condition

Condition in the stock and bond market under go both long and short run changes that can have an important bearing on the 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. Therefore, low rated companies in needed of capital were forced to go to the stock market or the short term debt market, regardless of their target Capital Structure. When conditions eased however, these companies were able to bring their Capital Structure back to their target level.

11. The Firm's Internal Condition

A firm's own internal condition can also have a bearing on its Capital Structure. For example: suppose a firm has successfully completed rural and development program and it projects higher earnings in the immediate future. However, the new earnings are not yet anticipated by investor and hence are not reflected in the price of the stock. This company would not want to issue stock, it could prefer to finance with debt until the higher earnings maximize and are reflected in the stock price, at which time it might want to sell an issue of common stock, retire the debt and return to its Capital Structure.

12. Financial Flexibility

It has been noted that firm can earn a lot of money form good capital budgeting and operating decisions than they can form good financing decisions indeed. The researcher really are not sure how (or even if) financing decisions affects stock prices, but they do not know that having to turn down a large order because funds are not available for buying the raw material of equipment needed to fill it will lower profits. For this reason, many treasurers have as their primary goal to always be in a position to raise the capital

needed to support operations. We also know that when times are good firm can raise capital with either stock or bonds, but when times are bad, suppliers of capital are much more willing to make funds available if they are given a secured position, and this means bonds.

These are the main factor affecting the target Capital Structure. Other factor like nature of the company, floating costs, capacity of raising funds, agency cost, cash flow ability, external risk assessment, contractual obligation, timing, solvency etc. should also be considered while making Capital Structure decisions.

A.1.1 Determinants of Capital Structure

According to an international journal published on December, 2004, by **Keshar J. Baral, PhD*** who is Associate Professor, Faculty of Management, PNC, Pokhara. On **“The Journal of Nepalese Business Studies”** he has listed some of the determinants of Capital structure which I heartily agree and have listed in below.

Capital structure of a firm is determined by various internal and external factors. The macro variables of the economy of a country like tax policy of government, inflation rate, capital market condition, are the major external factors that affect the capital structure of a firm. The characteristics of an individual firm, which are termed here as micro factors (internal), also affect the capital structure of enterprises. This section presents how the micro-factors affect the capital structure of a firm with reference to the relevant capital structure theories stated earlier.

A.1.1 Size of a Firm

The bankruptcy cost theory explains the positive relation between the capital structure and size of a firm. The large firms are more diversified (Remmers and others 1974), have easy access to the capital market, receive higher credit ratings for debt issues, and pay lower interest rate on debt capital (Pinches and Mingo 1973). Further, larger firms are less prone to bankruptcy (Titman and Wessels 1988) and this implies the less probability of bankruptcy and lower bankruptcy costs. The bankruptcy cost theory suggests the

lower bankruptcy costs, the higher debt level. The empirical studies carried out during the 1970s, as suggested by this theory, also show the positive relation between the size of firms and capital structure (Martin and others 1988). But results of some empirical studies do not corroborate with this theoretical relation.

A.1.2 Growth Rate

The agency cost theory and pecking order theory explain the contradictory relation between the growth rate and capital structure. Agency cost theory suggests that equity controlled firms have a tendency to invest sub-optimally to expropriate wealth from the enterprises' bondholders. The agency cost is likely to be higher for enterprises in growing industries which have more flexibility in their choice of future investment. Hence, growth rate is negatively related with long-term debt level (Jensen and Meckling 1976). This theoretical result is backed up by the empirical studies carried out by Kim and Sorensen (1986), and Titman and Wessels (1988) but Kester study rejected this relation (1986). Pecking order theory, contrary to the agency cost theory, shows the positive relation between the growth rate and debt level of enterprises. This is based on the reasoning that a higher growth rate implies a higher demand for funds, and, *ceteris paribus*, a greater reliance on external financing through the preferred source of debt (Sinha 1992). For, pecking order theory contends that management prefers internal to external financing and debt to equity if it issues securities (Myers 1984). Thus, the pecking order theory suggests the higher proportion of debt in capital structure of the growing enterprises than that of the stagnant ones. Chung (1993), Chaplinsky and Niehaus (1990) showed the evidence contrary to the pecking order theory.

A.1.3 Business Risk

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

debt level in capital structure of the enterprises should decrease (Taggart 1985). Studies carried out in western countries during 1980s show the contradictory evidence in this regard (Martin and others 1988). The in capital structure. The bankruptcy cost theory contends the higher operating leverage, the greater the chance of business failure and the greater will be the weight of bankruptcy costs on enterprise financing decisions. Similarly, as the probability of bankruptcy increases, the agency problems related to debt become more aggravating. Thus, these theories suggest that as operating leverage increases, the debt level in capital structure of the enterprises should decrease.

Studies carried out in India and Nepal also show the contradictory evidence on the relation between the risk and debt level. Sharma (1983) and Chamoli (1985) show the evidence against, and Garg (1988) and Paudel (1994) do for the relation consistent with the bankruptcy and agency cost theories.

A.1.4 Profitability

The static trade-off hypothesis pleads for the low level of debt capital of risky firms (Myers 1984). The higher profitability of firms implies higher debt capacity and less risky to the debt holders. So, as per this theory, capital structure and profitability are positively associated. But pecking order theory suggests that this relation is negative. Since, as stated earlier, firm prefers internal financing and follows the sticky dividend policy. If the internal funds are not enough to finance financial requirements of the firm, it prefers debt financing to equity financing (Myers 1984). Thus, the higher profitability of the enterprise implies the internal financing of investment and less reliance on debt financing. Most of the empirical studies support the pecking order theory. The studies of Titman and Wessels (1988), Kester (1986), Friend and Hasbrouck (1989), Friend and Lang (1988), Gonedes and others (1988) show the negative relation between the level of debt in capital structure and profitability. Indian and Nepalese studies also show the same evidence as foreign studies do (Baral1996). Only a few studies show the evidence in favor of static trade-off hypothesis contention.

A.1.5 Dividend Payout

The bankruptcy costs theory pleads for adverse relation between the dividend payout

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

A.1.6 Debt Service Capacity

The higher debt level in capital structure increases the probability of bankruptcy and bankruptcy costs of the enterprises. Probability of bankruptcy refers to the chances of cash flows to be less than the amount required for servicing the debt. The debt service ratio measured by the ratio of operating income to total interest charges indicates the firms' ability to meet its interest payment out of its annual operating earnings (Keoun and others, 1986). Therefore the higher debt service ratio shows the higher debt capacity of the enterprises.

Hence, the debt capacity theory suggests the positive relation between the debt service capacity and capital structure of the enterprises. But contrary to this theoretical relation, empirical studies show the negative relation (Bhat 1980).

A.1.7 Operating Leverage

The use of fixed cost in production process also affects the capital structure. The high operating leverage-use of higher proportion of fixed cost in the total costs over a period of time-can magnify the variability in future earnings. Both the bankruptcy cost theory and agency cost theory suggest the negative relation between operating leverage and debt level.

General Concept of Profitability

The term profit and simply the money gained from a sale, which is more than the money

spent. According to dictionary of commerce, profit is term as "To describe the surplus resulting after a defined trading period but must be regarded as the first essential charge upon business, being a reward for engaging resources in conditions of speculative risk for the satisfaction of consumer resources in conditions of speculative risk for the satisfaction of consumer demand. It furnishes resources to invest in future operations and consequently its absence must result in a line in effective capital resources and ultimately competitive extinction of the business" (Gupta & Abrol, 1992).

Profitability is a deviation of the term profit, which explains ability to make a profit. Profit is primarily a measuring rod of success of business enterprise. It is the basic test of performance of any business. Simply stating, profit is money excess of sale over money spent but the term 'Profit' is very controversial and there are several different interpretation about it.

An economist will say that profit is the reward for entrepreneurship for risk taking. A labor leader might say that is a measure of how efficiently labor has produced and that it provides a base for negotiating a wage increase. An investor will view it is a gauge of the return on his\her money. An internal revenue agent might regard it is a base for determining income taxes. The accountant will define it simply as the excess of firm's revenue over expenditure of producing revenue in given fiscal period (Linch and Williamson, 1989).

Profitability is basically an arc around which the ventures every business revolves. Profit is the main financial indicator of business firm, which is indeed a need to survive and grow the business environment. Profit is essential to raise the market price of shares and to attract additional capital investment. Profit is the outcome of good management, cost control, credit risk management, efficiency of operation etc.

In this regard, American Institute of Banking says, "Under the free enterprise system like USA, the interest of the nation as well as those of the individual stockholder is supposed to be best served by vigorously seeking profit. But the profit can not to be sole objective of an enterprise should not be evaluated just on the ground of the profit it earned. Neither bank nor the community will be best served if the banker unreasonably sacrifices funds

or the liquidity of bank in an effort increase income"(American Institute of Banking, 1972).

Significances of profit to a business firm are equally important, as for fish is water. To cover costs of staying in business such as replacement of machines, furniture obsolescence of machines, market or technical risks etc. Profit is essential in the sense to ensure supply of future capital. It provides capital through retained profits according to the self-financing principle though it provides access to attract outside capital into a firm to appropriate capital structure and helps to minimize cost of capital. Naturally, investor would invest their money in a firm where there is adequate profit. Hence, Profit is required to ensure and satisfy the entire expectation of management, shareholder or investor, employee and nation as a whole.

Financial goal of a firm in the past had been the maximization of profit but it is now different from the past. Generally, almost all the business is designed in order to earn profit. So, in absence of the ability of making profit, business organization cannot survive and we consider the organization soundless. So, the matter of profit is deeply concerned with the objective of business firm and economic theory as well.

2.2 Review of Related Studies

Previous studies are reviewed in this section. It consists of thesis and dissertations done by previous master's level student as well as other research works related to the Capital Structure of the firm. In this section, the following research studies have been reviewed.

2.2.1 Review of Joint Venture Bank

In a study laid by Dr. M.K. Shrestha observed, "The JVBs are operationally more efficient than the local commercial banks. He admits that this is the indication of enhanced banking capabilities supported by the modern banking method; whereas local commercial banks have been burdened by the government's policy of rural branching and financing PEs having no reimbursement capacity. He further explores that local

commercial banks have number of loopholes like absence of modern global balance sheets, absence of precise classification of loans and observe of proper development of computer networks. Moreover, local commercial banks have to face various problem from socio-economic political system on one hand spectrum and that of issue and challenges from JVBs commanding significant banking business on other spectrum (Shrestha, 1985).

Bista, in his book, has made an attempt to insight some of the important indicator, which has contributed to the efficiency and performance of joint venture banks in the field of commercial banks. He has remarked that the establishment of JVBs, a decade ago, has brought the modern banking era in Nepal i.e. computerization, hypothecation, consortium finance & modern fee-based activities into the economy (Bista, 1990).

2.2.2 Review of Research Works & Journals

Dr. Manohar Krishna Shrestha, in his analysis of capital structure has concluded that the selected PEs under study has very confusing capital structure. Since the corporations are not guided by objectives base financial plans and policies. He has suggested that the debt equity ratio should neither be highly leveraged to create too much financial obligation that lie beyond capacity to meet nor should it be much low leverage to infuse operation lethargy to pass responsibilities without performance (Shrestha, 1985).

The article entitle "Capital Adequacy of Bank; the Nepalese Context" has thrown precaution over to the capital base that it should neither be too much leading to inefficient allocation of scarce resources nor so weak as to expose to extreme risk while dealing highly risk transactions to maintain strong capital base. He accepts the fact that the operations of banks and the degree of risk associated with them are subject to change country wise, bank wise and time period wise. Therefore, the study entirely suggests presenting standard capital adequacy ratios for each individual bank keeping in mind various relevant factor [Shrestha (RL), 1990].

In general, the creditor prefers low debt ratios because it provides a sufficient cushion against losses in the event of liquidation. And, owners prefer a high debt ratio because that magnifies their earnings on one hand and enable them to maintain their control over

institution on the other (Pradhan, 1986).

Dr. Sunity Shrestha, in her Ph.D. thesis, has started the debt-equity ratio of commercial banks are more than 100 percent in most of the time period (even 15 times sometimes) which is highly leveraged and highly risky. Further, most of the time foreign banks have higher return and are included to take high risk in financial operation. In her same book, she has concluded that a depository institution while making investment decisions assesses the return & risk involved. There are various return & risk measures that have to be compared among similar function organizations. The management always needs to balance the trade off between return and risk level so as to maximize the income of the organization (Shrestha, 1990).

Ramesh Lal Shrestha, in his article, has forecasted that by 2004 AD, credit deposit ratio would be 51.3 percent other things remaining constant, which is the lowest under the review period. So, he had strongly recommended that the commercial bank should try to give more credit entering new field as far as possible, otherwise they might not be able to absorb even its total expenses (Shrestha, 1989).

An article that was published in "The Kathmandu Post" relating "Banking condition of Nepal" has quoted that the most widely and perhaps rightly criticized aspect of the present banking sector is unfavorable in terms of banking services offered to the customer reflected in low interest rates offered to the depositor and high lending rates imposed upon the debtor (The Kathmandu Post, 1999). This has resulted in high spread rates between the lending and deposit rates. The spread rate in Nepalese banking sector is as high as 8 percent against the international practice of about 3 percent of such spreads.

The ratio (debt to equity) reflects the relative claim of creditor and shareholder against the assets of a firm and has important implications from the view point of creditor, owner and the firm itself. The ratio indicates margin of safety to the creditor against the possible losses in the event of liquidation. All authorities recognize the importance of debt-equity ratio.

2.2.3 Review of Dissertation Studies

Shrestha (2003) undertook a study on analysis of Capital Structure of selected public enterprises under study have a very confusing Capital Structure since the corporations are not guided by the objectives based on financial plan and policies. In many instances ad-hocism become the basis of Capital Structure and in that also, most of them, want to eliminate debt if possible to relieve financial obligations. He has also suggested that, the debt-equity ratio should neither be highly levered to create too much financial obligations that lie beyond capacity to meet nor should it be much low levered to infuse operational strategy to bypass responsibilities without performance and the calculation of the equity capitalization rate according to given data provide very fantastic results in many cases, although they carry valid and meaningful result in some instances.

Guragain (2003) undertook a research study on the comparative evaluation of Capital Structure between Butwal spinning mills Ltd. and Jota spinning mills Ltd. Analyzed the Capital Structure of these companies by using financial and statistical tools. He has concluded his study as:

- Both the sampled companies have high debt equity ratio and are highly levered and as increased financial risk to the considerable extent.
- Both the companies have positive correlation coefficient between long-term debt and shareholder equity. Or there is significant relationship between long-term debt and shareholder equity. But there is no significant relationship between interest payment and EBIT.
- Total debt has not been fully utilized in the management of assets. > Debt removing capacity is weak in both the companies. And return on capital employed is not significant.
- Both the companies have negative overall capitalization and equity capitalization rate but the market value per share of those companies are higher than the par value.

To overcome these problems he has suggested to:

- Maintain optimal Capital Structure.
- Minimize the operating cost.
- Utilize optimal capacity.
- Install diesel plant for electricity.
- Enhance competitive capacity.
- Revise the capitalization rate.
- Expand operation.

Aryal,(2003) undertook a research study on the evaluation of Capital Structure of Bottler Nepal Ltd has suggested that, the management must bring about the satisfactory compromise among these confusing factor of cost, risk, control and timing. And it was found that the company has high debt to equity ratio, so the company is regarded, as highly geared company is to lower down the amount of debt and to obtain additional funds through the issue of equity capital from debt capital if the company has high earning per share. The company would have to issue its share, when the company had high rate of return and the company has to follow the grater norms of optimal Capital Structure 2:1.

Acharya (2003) conducted the study on Capital Structure position in Arihanta Multi Fiber Ltd. In this study he concluded that the long term financial position of the company is not favorable. The company has long term debt financing to acquire fixed assets. The interest on capital employed ratio seems to be low as it fails to pay off interest. The return on owner's equity is negative, which indicated that debt capacity to generate income is not favorable. Debt to equity ratio is high, which shows the outsider claims on return are greater than that of equity holder. These all shows that the financial risk of the company are in increasing trend.

Pandey (2001) consideration that both the companies having defective capital structure. BSL is highly levered where as LSL is unlevered company the negative interest coverage ratio indicate that both the companies have no debt paying capacity from the profit of the company. The total debt to total asset ratio of BSL is around 50 percent which relatively better than of LSL company which is unlevered company. He recommended BSL to repurchase the equity capital and maintain 1:1 ratio while LSL should reduce equity

capital and issue debt capital in order to maintain optimal capital structure.

Khatri (1998) base on five year data of banking, finance and manufacturing sector found the regression coefficient of leverage against the cost of capital was negative on manufacturing and trading sector where as positive on banking and financial sector. The study could not be able to establish relationship between the cost of capital and capital structure. He concluded that the capital structure composition of Nepalese listed companies were confusing and determined without considering the capital structure decision.

Gurung (2004) has studied under four companies, Nepal Lever Ltd. Sri Ram Sugar Mills, Jyoti Spinning Mills and Arun Vanaspati Udhyog. From the study, while testing NOI approach he concluded that cost of equity is directly affected by the leverage position of the company. He also found correlation between DE ration and net profit is moderately positive for NLL but insignificant and incase of SSM, DE ratio is highly negatively correlation while JSm and AVU have low degree of negative relationship which is insignificant. He also found correlation between DE ration and K0 which shows the high degree of positive significant for NLL while rest of the companies have moderate negative relationship between DE ratio and K0.

Rajlawat (1999) emphasize on analyzing capital structure of NAL relating with existing financial position, growth and policies as well as financial ratio. He found out that the company is highly levered which indicated the financial risk is higher and the outsider's claim on the company's assets is more than that of shareholder. The higher percentage on ROE implies that the company is able to earn enough profit and able to make its shareholder satisfy with enough return. He concluded that the value of the firm depends on long-term debt and market value of the common share and had suggested NAL to decrease its debt capital drastically that will reduce burden of interest payment and interference of creditor in management.

Thapa (1997) argues Jyoti Spinning Mills Ltd. has employed large amount of outsider' loan which is beyond debt servicing capacity. During the seven year from establishment the firm is increasing debt obligation. He has recommended the firm to reduce debt

obligation by issuance of equity share and converting the preference share to equity share to have better capital structure.

Pathak (1999) indicate that both banks are highly levered which shows banks are facing heavy burden of interest payment which may jeopardize the solvency of the firm. Debt capital ratio in terms of total debt to total assets ratio shows that higher percent of total assets is financed by the outsider fund in the both banks. He concludes the banks are having insufficient returns from investment and NGB is relatively efficient in using long term funds compared to NIB. There is no significant relationship between debt-equity ratio in terms of fixed deposits to net worth and overall capitalization rate of the banks. He recommended expanding assets and branches that ultimately affect the bank's performance and increase the profitability.

Aryal (1991) found high employment of debt by the firm. He recommended retiring the debt by additional issuance of share in order to bring the capital structure to optimal level. Prescription has been made to maintain the general target of capital structure as per its prospectus.

Karkee (2002) argue that the public sector and manufacturing companies in developing countries lack required capital for investment which reflects the importance of short term financing. The firm should employ appropriate funds through short term financing and seasonal requirement should be financed through it. Most of the Nepalese manufacturing companies suffer huge losses due to their inappropriate financial mix. Since, higher uses of short term debt are risky for the company he had recommended to adopt mix approach.

Manandhar (1988) evaluated the NIDC's financial performance in terms of its profitability and long term solvency. In the study from the year 1977/78 to 1986/87, debt-equity ratio of the corporation was found to be increasing continuously which ultimately increased interest to be paid and affected the profitability of the company. The study also concluded that net worth of the corporation had been decreasing, on the account of this she recommended to give proper attention toward resource allocation to balance the fairly increasing borrowed resource or debt resource and also had focus to

give emphases for net worth.

This study is different in the sense that the selected companies are totally different from the above previous studies. The study totally revolves around the banking industry and the named of selected banks are namely NBBL and HBL. The study is done considering the data of three year for all the selected banks from the year 2062/63 to 2066/67. The study tried to analyze and evaluate the relationship of the capital structure with various variables as like profitability, cost of capital, and cost of equity and so on.

CHAPTER - THREE

RESEARCH METHODOLOGY

Research methodology consists of research design, nature and source of data, population methods and tools of data analysis. The major contents of research methodology followed in course of this study are as follows:

3.1 Research Design

The research design in a research study acts as a general framework for carrying out it. According to Kerlinger "Research design is the plan, structure and the strategy of investigation conceived so as to obtain answer to the research questions and to control variance" (1986, 275). Hence, research design is a road map by which the researcher reaches to his/her objective correctly on time.

Both descriptive and analytical research designs are adopted to carry out this study. More specifically, the descriptive approach has been adopted mainly for the conceptualization of problem. The analytical approach has been followed to analyze the related data and the relationship among variables.

3.2 Population and Samples

There are altogether 143 companies listed in Nepal stock exchange Ltd. which are considered as population for the study. There are altogether 32 commercial banks listed and among them NBBL and HBL had been selected for the study purpose. Previously all the sampled companies were joint venture but at the present.

3.3 Period Covered

For the analysis of the capital structure and other related data only the five year data are used. More the period covered for analysis more we get the true figure. However due to the constraints of time and resources only the five year period data are used.

3.4 Data Collection Procedure

Once the purpose of statistical investigation has been defined, the next step is to collect the data which are relevant for analysis in a meaningful manner. Thus, the collection of data is considered as an integral part of the research activity. The sources of information are generally classified as primary and secondary.

Primary Data

Data collected by the researcher or through agent for the first time from related field and possessing original character are known as primary data.

Secondary Data

Data collected by someone else, used already and are made available to other in the form

of published statistics are known as secondary data. Once primary data have been used, it loses its originality and becomes secondary.

3.5 Method of Analysis

Most of the analysis are based on secondary data however some primary data however some primary data are also used for analysis. In this study data are collected from different sources i.e. Nepal stock exchange websites such as www.nepalstock.com and www.google.com plus the respective firms central office. From these organizations annual reports are collected and some related information all taken from economic survey and people concerning and relevant to the study. For the purpose of analysis of data three year will be taken as sample 2005/06 to 2009/10.

These will be analyzed in two ways.

- Financial tools
- Statistical tools

3.5.1 General Financial Tools and Techniques

As the study is almost based on secondary data, the data needed are collected from the Balance sheet, P/L Account of the concerned banks, Stock Exchange Board and Nepal Rastra Bank and information queries from the bank's personal.

3.5.1.1 Financial Tools

1. Capital Structure Analysis:

a. Fixed Deposit Analysis

I. Fixed deposit composition and index statement

II. Fixed deposit to total assets

III Fixed deposit to total debt

b. Shareholder' Equity Analysis

I . Shareholder' composition and index statement

II. Net worth percentage of total liabilities

c. Analysis of Financial Mix

The analysis of financial mix is performed by using Ratio analysis. It is a powerful tool financial analysis. A ratio is defined as, "The indicated quotient of two mathematical expressions" and as "The relationship between two or more things" (Webster's New Collegiate Dictionary, 1975).

Ratio analysis is used to assess enterprise efficiency and to help to find reasons for inefficient. Also see management ratios (Gupta and Abrol, 1992).

Ratios reflect symptoms not causes. It is used to interpret the financial statement so, e strength and weaknesses of a firm as well as its historical performance and current financial condition can be determined.

1. Capital Structure Ratio:

The ratio indicates the proportion of debt and equity in financial the firm's assets. It is concerned with the long-term solvency of a firm. Capital structure ratios are calculated to measure the financial risk and ability of using debt for the benefit of the shareholder.

The Capital Structure Ratios are as follows;

i. Fixed Deposit to Net Worth

ii. Debt to Net Worth

- iii. Fixed Deposit to Capital Employed
- iv. Debt to Total Assets

2. **Profitability Analysis:**

This analysis is performed by analyzing Earning capacity of the assets, Expenses analysis, Return ratios and Market related profitability ratios to arrive at the conclusion. Profitability analysis would be incomplete if these above aspects are not to considerations.

a. **Earning Capacity of Assets;**

- i. The proportion of investment in assets
- ii. The income of each assets as percent of total income

b. **Expenses Analysis:**

- i. Major expenses as percentage of total operating expenses
- ii. Major expenses as percentage of total income

c. **Return Ratios:**

- i. Return on Total Deposits
- ii. Return on Total Assets

The return on assets (ROA) which is often called the firm's return of total assets measure the overall effectiveness of management in generating profit which its available assets. It is calculated as follows.

$$ROA = \frac{\text{Net Income}}{\text{Total Asset}}$$

- iii. Return on Equity

The ROE measure the return on the owner's investment in the firm higher ratio of return on equity is better for owner, it is calculated as follows.

$$ROE = \frac{\text{Net Income}}{\text{Total Capital employed}}$$

d. Market Related Ratios:

i. Earning Per Share

A part from return the profitability of a firm from the point of view of the ordinary shareholder is earning per share. It measures the profit available to equity shareholder per share.

$$EPS = \frac{\text{Net Profit After Tax} \pm \text{Pref. dividend}}{\text{Number of equity Shares}}$$

ii. Price Earning Ratio

Price earning ratio indicates investor's expectation about the growth of the firm's earnings.

$$P.E. \text{ Ratio} = \frac{\text{Market Price per share}}{\text{Earning Per Share}}$$

The ratio analysis explains the relationship between to variables so that the accepted activity in the organization is held or not can be examined. For this purpose the following ratios are considered in this study.

3.5.2 Statistical Tools

Some statistical tools are used in the analysis and interpretation of data. The main statistical tools used in this study are mentioned below properly.

Correlation Coefficient:

Correlation is a statistical tool which studies the relationship between two variables and correlation analysis involves various methods and techniques used for studying and measuring the extent of the relationship between the two variables. Correlation is the analysis of the co-variation between two or more variables. The correlations can be calculated mathematically as follows:

$$\text{Coefficient of Correlation (r)} = \frac{N \sum xy - \sum x \sum y}{\sqrt{N \sum x^2 - (\sum x)^2} \sqrt{N \sum y^2 - (\sum y)^2}}$$

Where,

r = Correlation coefficient between two variables X and Y.

X= First variable

Y= Second variables

N= No. of observations

Probable Error:

P.E. denotes probable error of the correlation, which is the measure of testing the reliability of the calculated value of r. if r is the calculated value of r from a sample of n pair of observations, and then P.E. is defined by

$$PE(r) = 0.6745 \times \frac{(1 - r^2)}{\sqrt{n}}$$

Where,

r = Correlation coefficient

N = Number of pair of observations

It is used in interpretation whether calculated value of r is significant or not.

If $r < P.E.$, it is insignificant and if $r > 6P.E.$ it is significant. The P.E. of correlation may be used to determine the limits within which the population coefficient lies. Limits for the population correlation coefficient are $r \pm P.E.$

Graphical Approach

It is one quantitative method used to determine patterns in data collection overtime. It is used to detect patterns of change in statistical information over the time. This is the simplest and the easiest method of studying trend of fluctuations. In this method, Points are plotted taking time along X-axis and the value of the variable under study along Y-axis. In this study graphical approach is presented and analyzed by line chart and bar diagram wherever it is necessary.

CHI SQUARE Non-parametric Test:

It depends only on the set of observed and expected frequency and degree of freedom. Since Chi square test doesn't make any assumption about population, it is also called distribution free test. This test is good for nominal or ordinal scale of measurement. Nominal scales of measurement deals with the data which only be classified into categories such as strongly agreed, agreed, disagree, and strongly disagreed and so on where as the ordinal level of measurement assigns ranks. Similar to the binomial distribution, Chi-square test is also used for analysis qualitative variables such as opinions of person's religious affiliation, if habits and so on. Chi square test is a test, which describe the magnitude of between observed and expected (theoretical) frequencies under a certain condition. In other words, it is described the magnitude of the discrepancy between observation it is defined as

$$\text{Chi Square} = \sum \frac{(O - E)^2}{E}$$

Where,

O = Observed frequencies

E = Expected frequencies

Expected frequencies = $RT \times CT$

Where,

RT = Row Total

CT = Column Total

3.6 Test of Hypothesis

In testing of hypothesis assumptions is made about the sample selection from population and testing whether the assumption or hypothesis is correct or incorrect with respect to two contending and get the sound conclusion in the light of the sample observations. In testing the hypothesis the initial way is to set the hypothesis and present it into in standard way. For this, null hypothesis (H_0) and alternative hypothesis (H_i) have been formulated. Under this study, the hypothesis is formulated and tested while applying the regression analysis and chi square test.

A) Creation of hypothesis under regression analysis (for secondary data):

B) For first model:

Null Hypothesis (H_0): The profitability is dependent on capital employed, long term debt and sale.

Alternative Hypothesis (H_i): The profitability is not dependent on capital employed, long term debt and sale.

CHAPTER – FOUR

PRESENTATION AND ANALYSIS OF DATA

4.1 Introduction

This chapter on presented analysis of data has been introduced with view to answer the research questions. In other words, this chapter aims as achieving objectives of the study, answering the research questions. In this chapter information or data collected from various secondary sources are presented and analyzed. Analysis is done by using statistical and financial tools.

Many studies have been conducted over the last three to four decades on the issue of capital structure. Some indicated that capital structure affects on profitability, while other did not indicate so those, who advocated that capital structure, affect profitability are mainly Barges (1963), Weston (1963), Miller and Modigliani (1966), and Sharma and Roy (1968). Those, who advocated that capital structure does not affect profitability, are mainly by Modigliani and Miller (1958), Hamada (1972) and Miller (1977).

The studies conducted there after either supported one view or the other, leading to some fairly unsettling conclusion about capital structure. On the other hand it is argued that capital structure has no effect on the value of the firm (Modigliani and Miller 1958, Miller 1977) and it is suggested that the firm carry 100 percent debt (Modigliani and Miller 1963). Though, there are these studies in the field of capital structure and profitability in the developed countries, their applicability is yet to be verified in the context of underdeveloped country like Nepal.

4.2 Capital Structure Analysis

Capital structure of the bank is analyzed incorporating the analysis of relationship between fixed deposits and shareholder equity its composition and index financial mix

ratios analysis and capitalization rate analysis.

4.2.1 Fixed Deposits Analysis

Fixed deposits of the bank are considered as long term debt collected from the customer whom a bank generally accepts for maximum period of two year. Fixed deposits are only long term source of debt capital for these two banks (NBBL & HBL) SO far. The following table shows the position of fixed deposits in the banks over the past six year (2002/03-2007/08).

Table 4.1 Fixed Deposits Position & Index Table of NBBL & HBL

	NBBL			HBL		
FY	Fixed deposit (NRs)	Index	% increase or Decrease	Fixed deposit (NRs)	Index	% increase or Decrease
2004/05	896,811,898	100	-	1894203074	100	-
2005/06	1,500,258,506	167.29	67.29	2225595017	117.5	17.5
2006/07	2621604751	292.32	74.74	2190381161	115.64	-1.58
2007/08	4356581832	485.78	66.18	3917137569	206.8	78.83
2008/09	5236787874	583.93	20.2	4927374835	260.1	25.79
2009/10	5453626762	608.11	4.14	5480843515	289.35	11.23

S.D	28.65	S.D	27.72
C.V	61.6	C.V	105.2

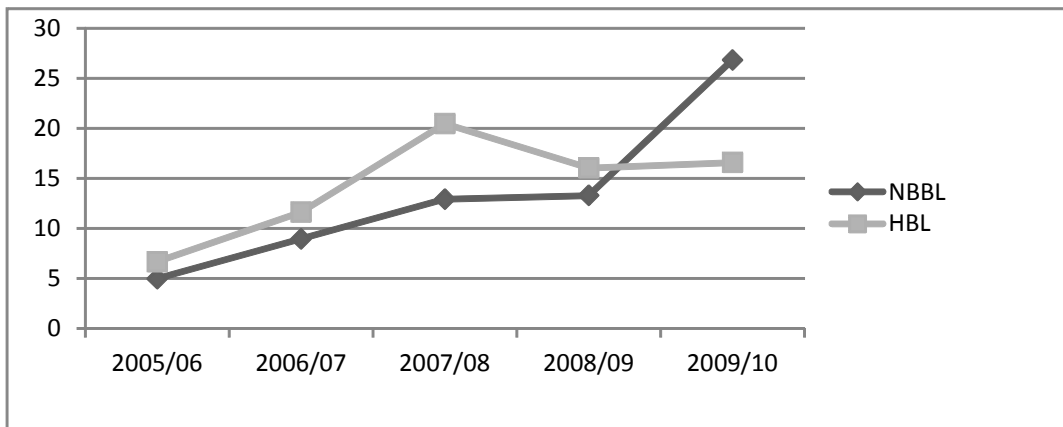


DIAGRAM No. 1 Comparative Bar Diagram of Fixed Deposit

Fixed deposits of NBBL was increasing during every year as shown by the index which was increasing state that shows that the bank is concentrating to increase fixed deposits in its financial mix. The fixed deposits of the bank was increased by 67.29% in fiscal year 2005/06 then in fiscal year 2006/07 it was increased by 74.74% which was the highest increment during the study period. In 2009/10, it was increased by 4.14% over lastly year, which was still highest during the study period as predicted by index that was highest over all the period i.e. 608.11%. This shows that the bank is giving more emphasis to increase fixed deposits in its capital structure or financial mix.

Fixed deposits of HBL increased in first year 2005/06 by 17.50% but in the year 2006/07, it decreased by 1.58% that was the negative change throughout the study period. Then after, a fixed deposit of the bank was increasing. In fiscal year 2007/08, it was increased by 78.83%, which was the highest increment during the study period. Then, it was still increasing but in decreasing rate. In 2009/10, it was increased by only

11.23% that was highest in volume as shown by index i.e. 289.35% which was highest during all the period. The bank too, was increasing fixed deposits in its capital structure.

On an average NBBL had collected funds in the form of fixed deposits more than that by HBL (i.e.46.51% > 26.35%) but by the volume both the banks was found very close in fiscal year 2009/10.

The variability of the deposits was found more in HBL than in NBBL (i.e.105.20% > 61.60%) both the banks were found increasing foxed deposits in its financial mix. (Please, see Bar Diagram No.1 & Table 4.1 for details)

Table 4.2 Fixed Deposit as Percentage of Total Liabilities of NBBL & HBL (in %)

FY/Bank	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	Avg	S.D	C.V
NBBL	58.48	54.18	53.46	57.43	49.43	49.12	53.68	3.56	6.63
Change	-	-4.30	-0.72	3.97	-8.00	-0.31	-	-	-
HBL	27.90	25.48	19.48	24.69	25.27	25.71	24.75	2.56	10.34
Change	-	-2.42	-6.00	5.21	0.58	0.44	-	-	-
Combined Average = 39.215									

The percentage of fixed deposits to total liabilities of NBBL was highest in fiscal year 2004/05 i.e. 58.48% then decreased to following two year by 4.30 & 0.72 points respectively. It further increased to 57.43% in fiscal year 2007/08 and again decreased to following year. In 2009/10, it was 49.12%, which was recorded minimum throughout the study period.

Similarly, fixed deposits of HBL were 27.90% of the total claims on assets in 2004/05, which was the highest fixed deposits portion in total liabilities of the bank over the study period. Therefore, fixed deposits were decreased to 25.71% in 2009/10 making an average of 24.75% of fixed deposits in total liabilities. Fixed deposits was the lowest in 2006/07 i.e. 19.48%. When combined average was considered the ratio of NBBL was

found higher than the average of 39.215% over the study period but the ratio of HBL was lower than the average throughout the study period.

This shows that NBBL has higher portion of fixed deposits in total liabilities or claims on assets than that of HBL. (Please, see Table 4.2 for details)

Table 4.3 Fixed Deposit to Total Debt of NBBL & HBL (in %)

FY/Bank	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	AVG	S.D	C.V
NBBL	61.51	57.95	55.63	60.60	52.37	52.06	56.69	3.68	6.49
Change	-	-3.56	-2.32	4.97	-8.23	-0.31	-	-	-
HBL	29.79	27.24	20.76	26.13	26.92	27.66	26.42	2.77	10.48
Change	-	-2.55	-6.48	5.37	0.79	0.74	-	-	-
	Combined Average = 41.555								

Total debts include borrowing from the banks Deposits, Bill Payable, Bills for collection being Bills receivable & other liabilities. The portion of fixed deposits of NBBL in total debt was over half throughout the study period. In 2004/05, it was highest i.e. 61.51% and the lowest was 52.09% of fixed deposits in total debt.

Similarly, the portion of fixed deposits in total debt of HBL was found below half throughout the study period. It was the highest 29.79% in the year 2004/05 and the lowest 20.76% in the year 2006/07 by decreased to 6.48% points over last year. It was because the less collection of fixed deposits during the fiscal year. In the year 2009/10, it was 27.66% making an average 26.42%.

The volume of fixed deposits to total debt fluctuated more than in HBL than in NBBL (i.e, C.V = 10.48% > 6.49%) the ratio of fixed deposits to total debt of NBBL was found above the combined average of 41.555% in all the period but it was found incase of HBL. This shows that NBBL has higher portion of fixed deposits in total debt than that of HBL. (Please, see Table 4.3 for details)

4.2.2 Analysis of Shareholder Equity

The shareholder equity of the banks includes paid up capital, Reserve funds and other reserves and undistributed profit. For the analysis of shareholder equity, this researcher has been taken its composition and Net worth per Share.

The following table 4, 4 (a & b) represents the composition of shareholder equity of the banks (NBBL & HBL) and net worth per share (in NRs).

Table 4.4 (a) Composition of Shareholder' Equity of NBBL (in NRs.)

Particular	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Paid up Capital	60000000	114121000	116352000	117767000	238163000	357252000
Reserve Funds	11246000	57048000	121397000	155981000	211194000	262647000
Reserve for doubtful debt	29813000	57143000	86886000	153443000	283926000	391625000
Retained Earnings	4291000	8793000	10777000	122841000	145765000	6604000
Total SHS equity	105350000	237105000	335412000	550032000	879048000	1018128000
No. of Shares	1200000	1200000	1200000	1200000	2400000	3600000
Net Worth/Shares	87.79	197.59	279.51	458.36	366.27	282.81

Table 4.4 (b) Composition of Shareholder' Equity of HBL (in NRs.)

Particular	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Paid up Capital	120000000	120000000	192000000	240000000	300000000	390000000
Proposed capitalization of profit-bonus share		72000000	48000000	60000000	90000000	390000000

Reserve Funds	85322000	122895000	157144000	200600000	261697000	309585000
Reserve for doubtful debt	121464000	179349000	243919000	344484000	477681000	643414000
Retained Earnings	105575000	69171000	54040000	25451000	68912000	119530000
Total SHS' Equity	432361000	563415000	695103000	870535000	1198272000	1501529000
No. of Shares	1200000	1200000	1920000	2400000	3000000	3900000
Net Worth/Shares	360.30	469.51	362.03	362.72	399.42	385.00

Table 4.5 Net Worth to Total Liabilities of NBBL & HBL (in %)

FY/Bank	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	Avg.	S.D	CV
NBBL	6.87	8.56	6.84	7.25	8.30	9.17	7.83	0.89	11.41
Change	-	1.69	-1.72	0.41	1.05	0.87	-	-	-
HBL	6.37	6.45	6.18	5.49	6.14	7.04	6.28	0.46	7.34
Change	-	0.08	-0.27	-0.69	0.65	0.9	-	-	-
Combined Average = 7.055									

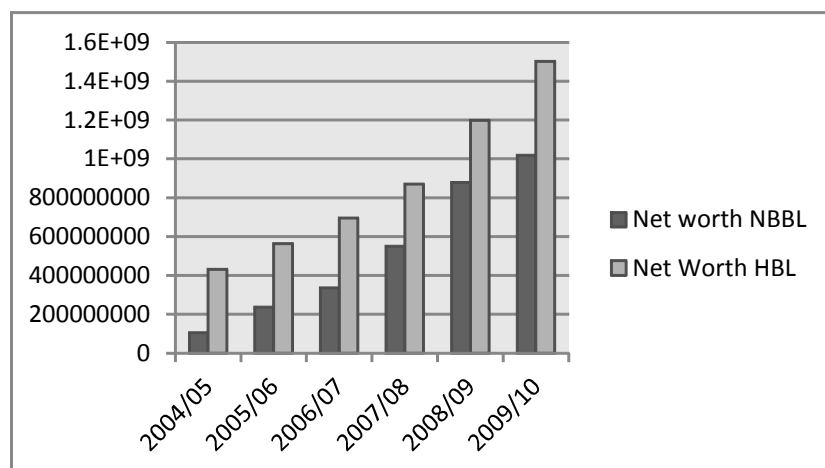
The proportion of shareholder equity i.e. Net worth in total claims of assets (total liabilities) was found much lower in both banks.

Table 4.6 Shareholder' Equity Composition & Index of NBBL & HBL

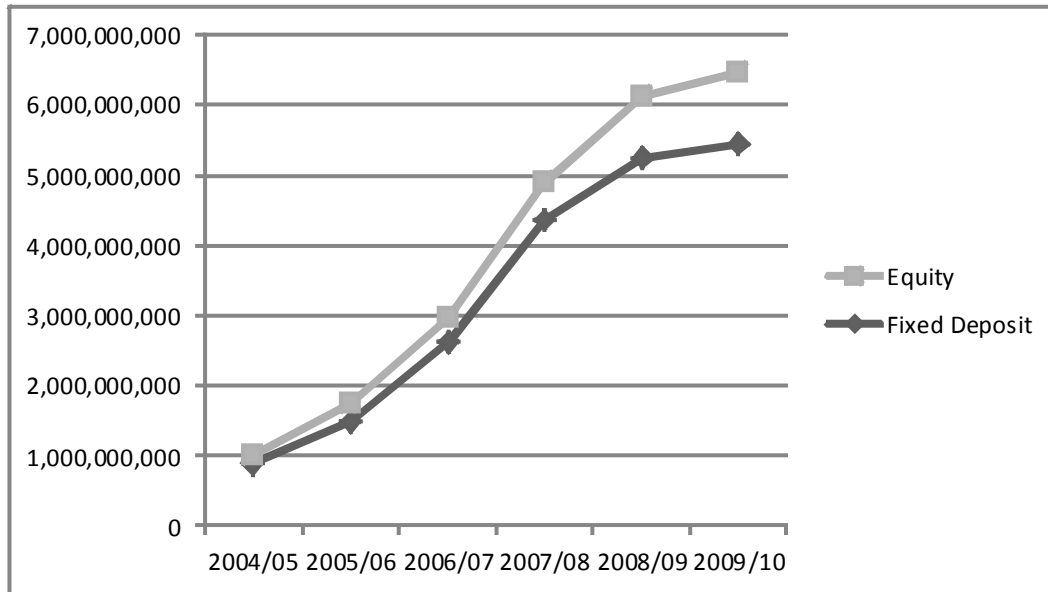
Bank	NBBL	HBL
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FY	Net Worth (NRs)	Index	% increase or Decrease	Net Worth (NRs)	Index	% increase or Decrease
2004/05	105350000	100.00	-	432361000	100.00	-
2005/06	237105000	225	125.06	563415000	130.31	30.31
2006/07	335412000	318.38	41.46	695103000	160.77	23.37
2007/08	550032000	522.10	63.99	870535000	201.34	25.24
2008/09	879048000	834.41	59.82	1198272000	277.15	37.65
2009/10	1018128000	966.42	15.82	1501529000	347.29	25.31
Average		61.23	Average Change		28.38	

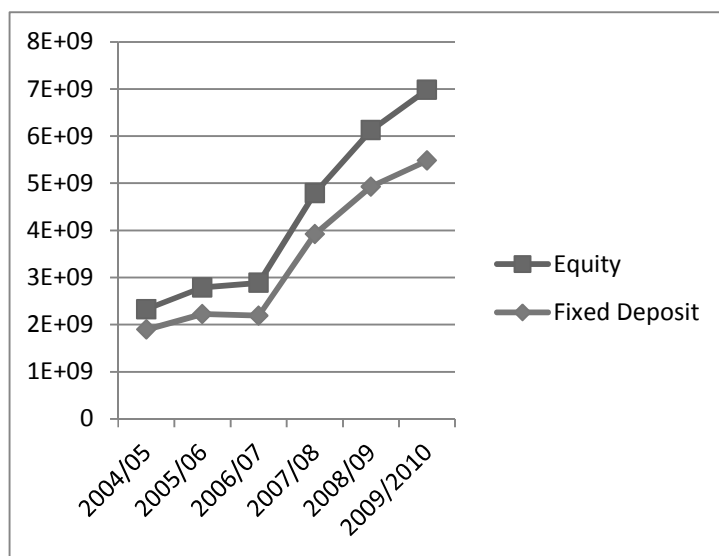
DIAGRAM NO. 2 Comparative Bar Diagram of Net Worth



Graph No. 1 Line Diagram of Fixed Deposit and Equity of NBBL



Graph No. 2 Line Diagram of Fixed Deposit and Equity of HBL



4.2.3 Analysis of Financial Mix of the Banks

This researcher has analyzed financial mix of the banks using ratio analysis as a financial tool for the data available from the concerned banks annual report.

4.2.3.1 DER in Term of Total Debt to Net Worth (TD/NW)

Table 4.7 DER of NBBL & HBL (in %)

FY/Bank	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	Avg.	S.D	C.V
NBBL	1384.02	1019.90	1405.01	1307.07	1137.46	1028.92	1225.73	146.20	11.93
Change	-	-292.12	313.11	-97.94	-169.61	-108.54	-	-	-
HBL	1470.54	1450.29	1517.62	1722.30	1527.39	1319.61	1501.29	119.96	7.99
Change	-	-20.25	67.33	204.68	-194.91	-207.78	-	-	-
Combined Average = 1363.51									

The above calculation shows the portion of total debt in shareholder equity.

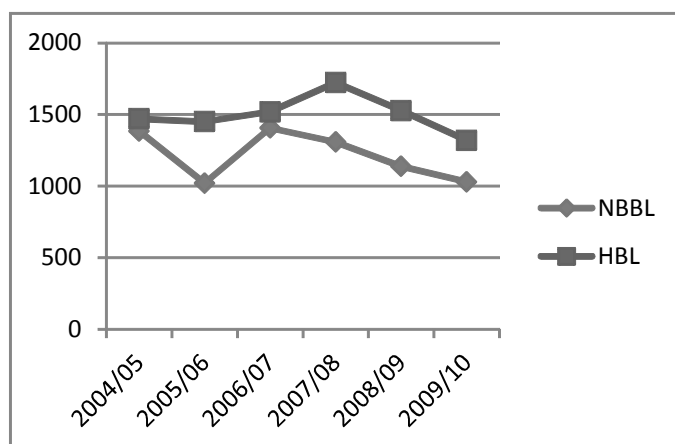
In the year 2004/05, NBBL had 1384.02% of the debt to net worth then it was decreased in the following year by 292.12 point. The ratio was 1405.02% in the year 2006/07, which was the highest throughout the study period. Therefore, it was decreased for following year recording 1028.92% in the year 2009/10, which was the least portion of debt to equity. On an average, the ratio of the bank was 1225.73%.

Similarly, HBL had 1470.54% of debt capital in every 100% net worth in 2004/05. Total debt to net worth of HBL was found fluctuated over the study period. The ratio was decreased by 20.25 points in the year 2005/06 in the year 2006/07 & 2007/08 respectively. Therefore, it was decreased for the following two year recording 1319.61% in the year 2009/10, which was the least ratio over the study period. On an average, the bank employed 1501.29% of debt capital to net worth.

The ratio of NBBL was found below the combined average of 1363.51% except in the year 2002/03 & 2004/05; where as the ratio for HBL was always above the combined average except in year 2007/08. This depicts that HBL had employed high debt capital or out side funds. The bank is extremely leveraged than NBBL.

The fluctuation in the ratio has been noticed in both the banks however the CV was lower in HBL than NBBL which shows that the ratio of HBL was more consistent than that of NBBL.

From the above table, we can say that both banks are extremely leveraged. Both the banks are facing heavy burden of interest payment due to the employment of more debts. Both the banks financial structure shows the dangerous signals to the creditor. In future the banks way lead to inflexibility in the operation. (Please see Graph no. 4 & Table 4.7)



Graph No.3 Line Diagram of Total Debt to Net Worth

4.2.3.2 OCR in Terms of Total Debt to Total Assets (TD/TA)

Table 4.8 Net Worth to Total Liabilities of NBBL & HBL (in %)

FY/Bank	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	Avg.	S.D	C.V
NBBL	95.07	93.50	96.09	94.77	94.38	94.36	94.70	0.79	0.83
Change	-	-1.57	2.59	-1.32	-0.39	-0.02	-	-	-
HBL	93.63	93.55	93.82	94.51	93.86	92.96	93.72	0.46	0.49
Change	-	-0.08	0.27	0.69	-0.65	-0.90	-	-	-
Combined Average = 94.21									

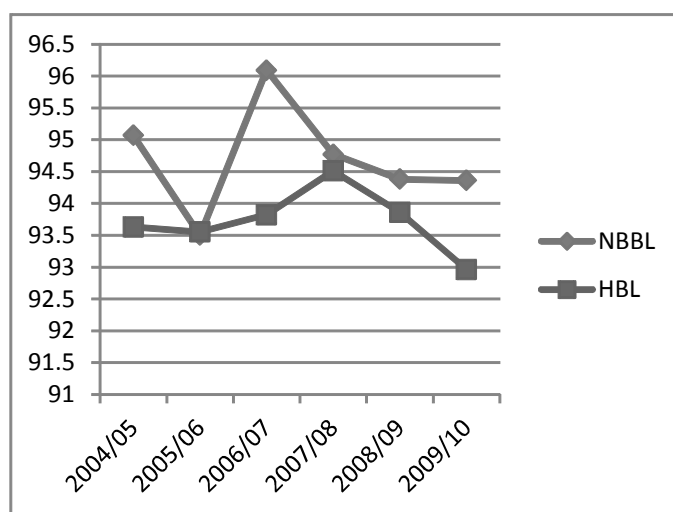
The above computation of DCR in terms of TD/TA shows that the share of total assets is financed by the outside fund. The ratio shows that the assets of the banks have been financed more by funds collected from creditor. The ratio of total debt to total assets of NBBL was 95.07% then it decreased in the following year by 1.57 points. Then again it was increased to 96.09% in the year 2004/05. Which was the highest ratio over the study period? Thereafter it decreased in the two subsequent years and recorded 94.36% in 2007/08. The average ratio of the bank was 94.70%.

Where the ratio of HBL was 93.63% in 2002/03 then it slightly decreased in the following year by 0.08 point. The highest ratio was 92.96% in 2007/08, which was the least over the study period. On an average, the ratio of the bank was 93.72%.

The CV of both the banks was below 1, which shows that there was less variability among the ratios.

The ratio of total debt to total assets was recorded over 90% in both the banks that show that both the banks are found using higher debt capital to finance its assets. In both banks, the creditor's margin of safety is very low; it was found around 6% to 7% only, which indicates higher risk. However, the ratio was found much higher in NBBL than that of HBL. (Please see Graph no.4 & Table 4.8 for details)

Graph no.4 Line Diagram of Total Debt to Total Assets



4.2.3.3 Analysis of Debt Capacity of the Banks

To analyze debt capacity of the banks, or to indicates the firm's ability to meet interest obligations. The interest coverage ratio is calculated. Interest coverage ratio is one of the

most conventional coverage ratios which measure the relationship between what is normally available from operations of the firm and the claims of the outsider; it is used to test firm's debt servicing capacity. It is determined by dividing operating profits by the fixed interest charges on debt.

Thus, Interest coverage ratio (ICR) = EBIT/Interest

From the view creditors point of view, larger the coverage ratios, greater the ability of the firm to handle fixed charges and assurance of the payment of interest to the creditor. However, too tight or low ratio as well may be unfavorable to the firms. High ratio implies that the firm is very conservative in using debt and low ratio implies that the firms is using excessive debt and not have the ability to offer assured payment of interest to the creditor.

Table 4.9 Interest Coverage Ratio of NBBL & HBL (in %)

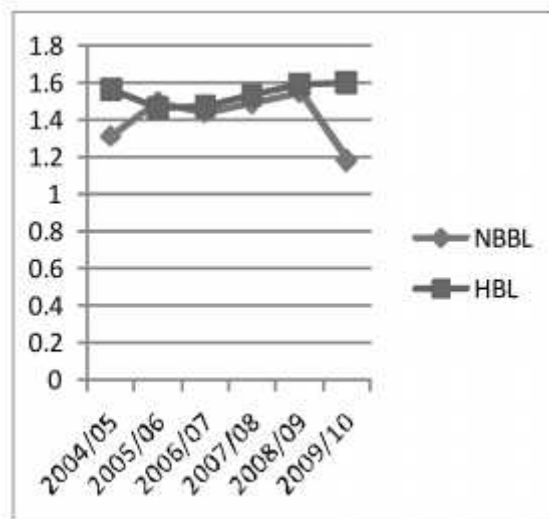
FY/Bank	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	Avg.	S.D	CV
NBBL	1.31	1.49	1.44	1.49	1.55	1.18	1.41	0.13	9.22
Change	-	0.18	-0.05	0.05	0.06	-0.37	-	-	-
HBL	1.56	1.46	1.47	1.53	1.59	1.60	1.53	0.055	3.6
Change	-	-0.1	0.01	0.06	0.06	0.01	-	-	-
Combined Average = 1 .47									

The interest coverage ratio of NBBL was 1.31 times in 2004/05 and in 2005/06. It increased by 0.18 point. The ratio was 1.44 times in 2006/07, which was a negative change by 0.05 point than previous year. Then subsequently in two year it further increased to 1.49 times & 1.55 times in 2007/08 & 2009/10 respectively. The highest negative change by 0.37 point was observed in 2009/10 which was the least ratio i.e. 1.18 times over the study period. On an average the interest coverage ratio of the bank was 1.41 times which was below the normal ratio i.e. 2 times.

Interest coverage ratio of HBL was 1.56 times in 2004/05 and it decreased to 1.46 times in 2005/06. Thereafter it slightly increased in the following year. In 2009/10 the ratio

was 1.60 times which was the highest ratio observed over the study period. The average ratio of the bank was 1.53 times. Both the banks had interest coverage ratio below the normal ratio i.e. 2 times, which could be considered as tight debt service capacity. So far HBL was observed in better condition than NBBL in their debt service capacity. The variation of the ratio of HBL was observed less in comparison to NBBL, i.e. CV of was HBL 3.6 whereas NBBL was recorded to be 9.22, which indicates that the interest coverage ratio of HBL was more consistent than that of NBBL.

Both the banks are able to meet the interest obligations. In banking business, interest coverage ratio should not be tight so that the bank could not be able to service the debt capital. There both banks, in regard, do not have sufficient interest coverage ratio moreover, the ratio of NBBL in the year 2009/10 was 1.18 times only, which was very tight to meet its interest obligations. The bank should have to pay more attention in this matter other increase it's EBIT or maintain minimum its interest obligations. (Please see Graph no.6 & Table 4.10 for details)



Graph No.5 Line Diagram of Interest Coverage Ratio

4.2.3.4 Capital Structure Position of the Banks

When debt and equity are properly mixed, minimizes the cost of capital and maximizes the value. In order to analysis the value of the banks, fixed deposits and equity share capital is taken into consideration. Net income approach is considered to find out the

overall capitalization rate of the banks.

In order to analyze the capital structure management of the bank the value of the firm is calculated as below,

The value of firms is determined by adding debt & equity. The structure of the banks is of fixed deposits & equity share capital only.

Table 4.10 Capital Structure Mix of NBBL (NRs)

FY	Fixed deposit (NRs)	Equity share	Total value of firm	Proportion
2004/05	896811898	60000000	956811898	0.937:0.063
2005/06	1500258506	114121000	1614379506	0.929:0.071
2006/07	2621604751	116352000	2737956751	0.957:0.043
2007/08	4356581832	117767000	4474348832	0.974:0.026
2008/09	5236787874	238163000	5474950874	0.956:0.044
2009/10	5453626762	357252000	5810878762	0.938:0.062

The figures in parenthesis are proportion

Table 4.11 Capital Structure Mix of HBL (NRs)

FY	Fixed deposit (NRs)	Equity share	Total value of firm	Proportion
2004/05	1894203074	120000000	2014203074	0.940:0.060
2005/06	2225595017	120000000	2345595017	0.949:0.051
2006/07	2190381161	192000000	2382381161	0.919:0.081
2007/08	3,917,137,569	240,000,000	4,157,137,569	0.942:0.058
2008/09	4,927,374,835	300,000,000	5,227,374,835	0.943:0.056
2009/10	5,480,843,515	390,000,000	5,870,843,515	0.934:0.066

The figures in parenthesis are proportion

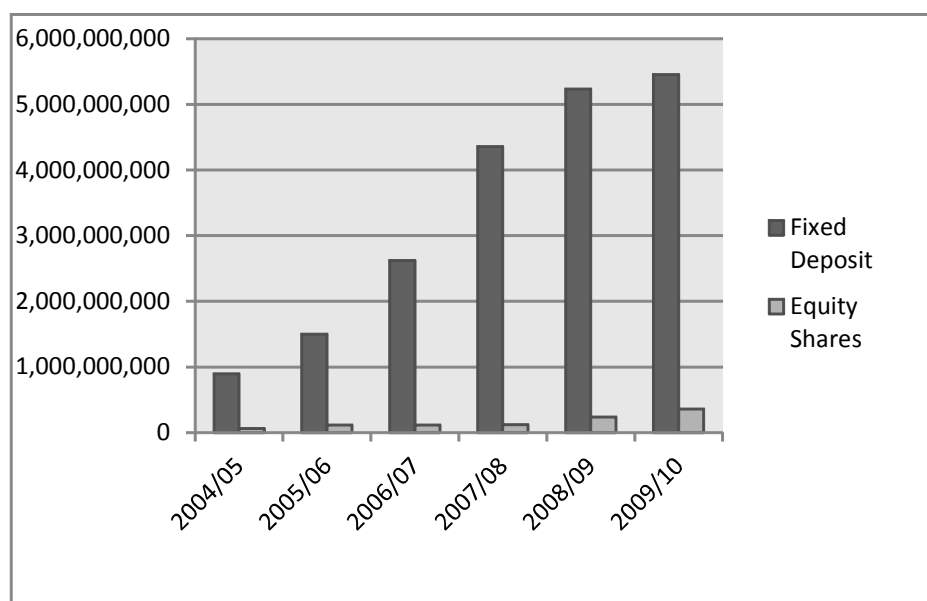
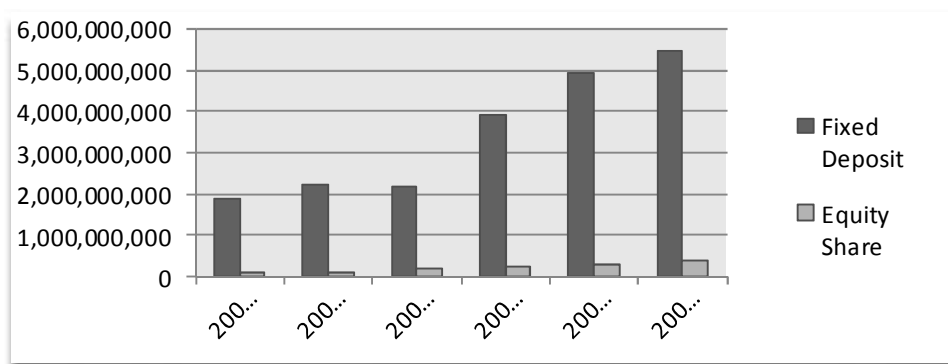
The proportion of the debt capital to equity capital of NBBL was almost over 90% in all the study periods. The proportion was 0.937:0.063 in 2004/05 which was geared up to

0.974:0.026 in 2007/08 reaching to maximum point because of increase in fixed deposits higher than in comparison to equity share.

Likewise, the proportion of the debt to equity capital of HBL was also found over 90% in all the study periods. The proportion of the bank was 0.94:0.06 in 2004/05 and it was maximum in 2003/04 i.e. 0.949:0.053 due to increase in fixed deposits than the previous year where the equity position was same. (Please see Bar Diagram no.3 & 4 and Table 4.10 & 4.11 for details)

Diagram No.3 Bar Diagram of Capital Structure Mix of NBBL

Diagram No.4 Bar Diagram of Capital Structure Mix of HBL



4.3 Profitability Analysis

Profitability is the main arch around which the venture of every business institutions revolves. The efficiency of the management is reflected upon the volume of profit. So profit has always been essential for every business originations for their smooth operations. Banking transition has been significantly increased but not the profitability of banks. It may be the result of top competition coming then. Banks profitability is affected by internal and external forces. Banks interest rate, government debentures and bills and tax rate are not under the control of banks management but operating cost efficiency of the staff banks own policy, banking tools are the control of management which are of course, helpful to improve the profitability.

Profitability of the two JVBS is analyzed on behalf of the long term financial healthiness. A commercial bank is an organization and hence, wants to make as many profits as possible. Investment is made which view of making profit. Higher the earning capacity of assets, higher would be the profitability, other things remaining constant. So in this section, this researcher tried to analyze the profitability condition of the two banks comparatively, working under the same environment.

Profitability depends upon earnings and expenditures. Every business institution should attempt to increase earning and maximize expenditures. For Analysis, this researcher incorporated:

- a) Analysis of earning capacity of assets.
- b) Return analysis.

4.3.1 Analysis of Earning Capacity of Assets.

This is an attempt to show the profitability of the different yielding assets. The tables, that follow have different investment proportion in assets and income of each asset as percent of total income according to the types of assets, are expressed in percentage. The proportion of investment in earning assets to total assets and other assets to total assets of NBBL & HBL is presented below where earning assets are loans & advances,

government securities, bills purchased and discount.

Table 4.12 Proportion of Investment in Assets of NBBL (in %)

FY/Earnings assets	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	Avg.	S.D	C.V
1. Loans & Advances	92.01	84.17	69.78	84.11	84.85	79.90	82.47	6.71	8.13
2. Govt. Securities	0.49	8.67	19.76	9.63	8.40	11.02	9.66	5.63	58.33
3. Bills Purchased & Discount	5.00	4.83	7.55	4.21	4.58	3.50	4.95	1.26	25.47
4. Other Assets	2.50	2.33	2.91	2.05	2.17	5.58	2.92	1.22	41.80
Total Assets	100	100	100	100	100	100	100	-	-

Earning capacity of the earning assets is calculated as per income of each earning assets as percentage of total income or it is the contribution of each earning assets income to total income.

This helps to identify which of the asset is earning most and at the same time it helps to show which of the bank is efficient in earning and which asset the bank is mobilizing fund mostly.

Table 4.13 Income of Each Asset as % of Total Income of NBBL

FY/Earnings	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	Avg.	S.D	C.V.
1. Loans & Advances	87.73	86.26	77.25	74.62	75.69	81.22	80.46	5.07	6.30
2. Govt. Securities	0.57	0.00	0.00	1.31	1.15	1.90	0.82	0.70	85.36
3. Bills Purchased & Discount	9.49	10.66	15.96	16.37	14.77	12.36	13.27	2.62	19.71

4. Other	2.21	3.08	6.79	7.70	8.39	4.52	5.45	2.33	42.76
Total Assets	100	100	100	100	100	100	100	-	-

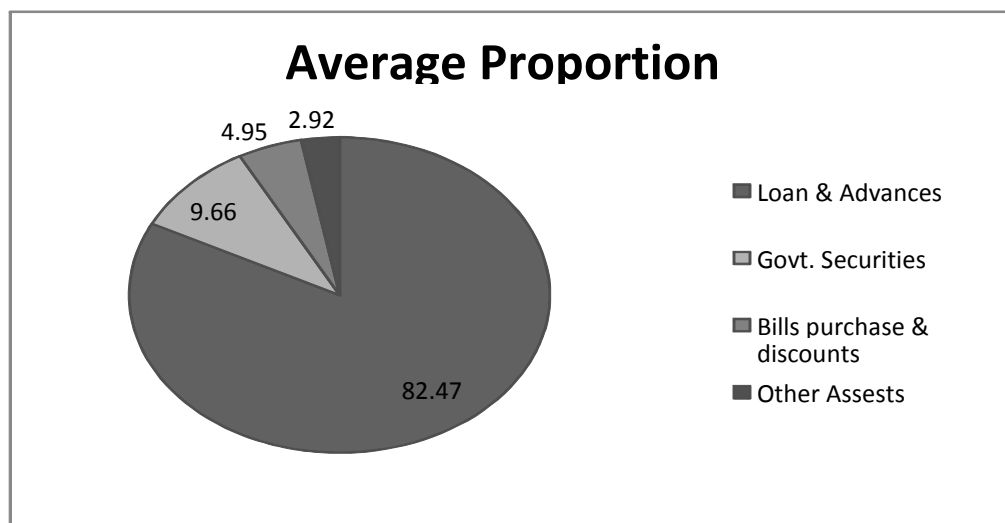
The proportion of investment in assets of NBBL is shown in table 4.12 which itself indicates that NBBL is more concentrating in the area of loans, advances and overdraft which is one of the earning assets in the bank. The proportion recorded over 82% on an average in loans & advances. In 2004/05, the asset was 92.01% of total assets, which covered earnings of about 87.73% as interest income to total income. The investment in the assets decreased in subsequent two year which made the same effect in the income which was recorded 86.26% & 77.25% out of 84.17% & 69.78% of investment to total assets respectively. On an average the investment of 82.47% as loans & advanced of the

basis of CV, the variability of income proportion on loans & advances was less (i.e. 6.3%) thought the variability of investment proportion in the assets was 8.13%. This shows that the fluctuation has not affected the income.

The contribution of other earning assets like Government Securities, Bills purchased & discounted and other assets had less contribution to the profitability generation of the bank. The investment in Bills purchased & discounted had contribution more earnings than its proportion to total assets. The proportion of the assets to the total assets was 5% in FY 2004/05, which covered income of 9.49% of total income in the same year. The same trend could be observed in all the periods. In 2007/08, the proportion of the assets to the total assets was 4.21%, which was able to cover income of 16.37% to the total income that was nearly 6 times. There was average of 4.95% investment on this assets and the bank covered income of 13.27% over total income. The short term nature and commission of the assets might be the reason to contribute in Govt. Securities on an average was 9.66% which contributed only 0.82% of income to total income. The variation in the assets largely affected the income contribution, as CV of the assets was 58.33% where CV of income of the assets was 85.36%. The investment in other assets noticed consistent in first five year ranging 2%-3% to the total assets but in the year 2009/10, it increased to 5.58% and contribution to the total income by the other assets was ranging 2%-9%. On an average, the proportion of 2.92% of the assets to the total assets seemed to be contributed income of 5.45% to the total income. The variation of investment in other assets had same effect

in income contribution by the assets because their close CV's i.e. 41.80% & 42.76% respectively.

The bank has heavily invested in loans & advances about 80% and only 20% in other income generating assets. When we see the average proportionate investment in the assets and their



income, it is advisable to the bank to change their investment portfolio. The bank should increase their investment in bills purchased & discounted and other assets, which ultimately increase the income because of their income contribution to the total income proportionately higher than their investment to the total assets. (Please see pie chart no. 2 & 3 and Table 4. 12 & 4.13 for details)

Pie Chart No. 2 Average Income of Each Asset as % of Total Income of HBL (%)

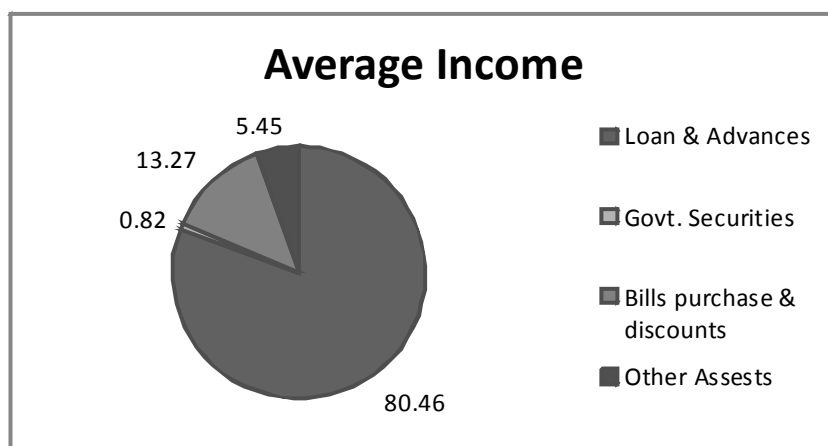


Table 4.14 Proportion of Investment in Assets of HBL (in %)

FY/Earnings assets	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	Avg	S.D	C.V
1. Loans & Advances	66.64	74.52	85.35	68.70	63.03	46.19	67.41	11.86	17.6
2. Govt. Securities	28.08	18.00	7.68	22.10	29.75	48.87	25.75	12.62	49.02
3. Bills Purchased : Discount	2.33	3.55	1.67	3.32	2.65	1.39	2.48	0.79	31.93
4. Other Assets	2.95	3.93	5.30	5.88	4.57	3.55	4.36	1.00	22.94
Total Assets	100	100	100	100	100	100	100	-	-

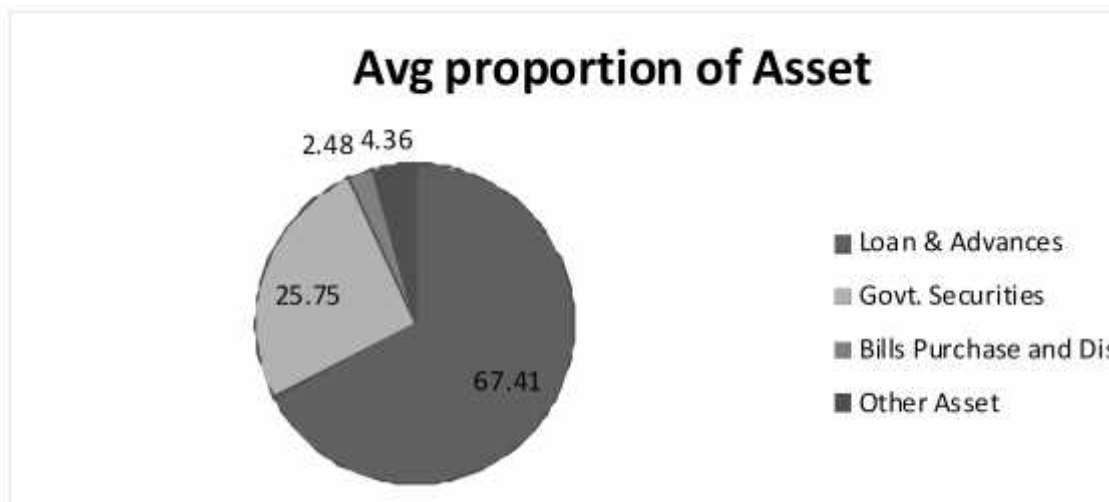
Table 4.15 Proportion of Investment in Assets of HBL (in %)

FY/Earnings assets	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	Avg	S.D	C.V
1. Loans & Advances	71.65	72.07	62.72	59.40	58.30	66.53	65.11	5.44	8.36
2. Govt. Securities	13.15	5.35	1.90	6.54	4.45	6.23	6.27	3.43	54.73
3. Bills Purchased & Discount	8.52	8.64	10.51	9.56	8.64	7.93	8.97	0.84	9.38
4. Other Assets	6.68	13.94	24.87	24.50	28.61	19.31	19.65	7.44	37.86
Total Assets	100	100	100	100	100	100	100	-	-

In first three year of the study period, loans & advances of HBL was increasing and was highest 85.35% of the total assets in 2006/07 bit thereafter its proportion was decreasing and lowest in the year 2009/10 i.e. 46.19% making an average investment of 67.41%. The earning on loans & advances covered 71.65% over total income in 2004/05, which further decreased for four subsequent year making an average of 65.11% of income over total income. The average earnings were close to average investment on loans & advances. The variability of investment on loans & advances was 17.60%, which was

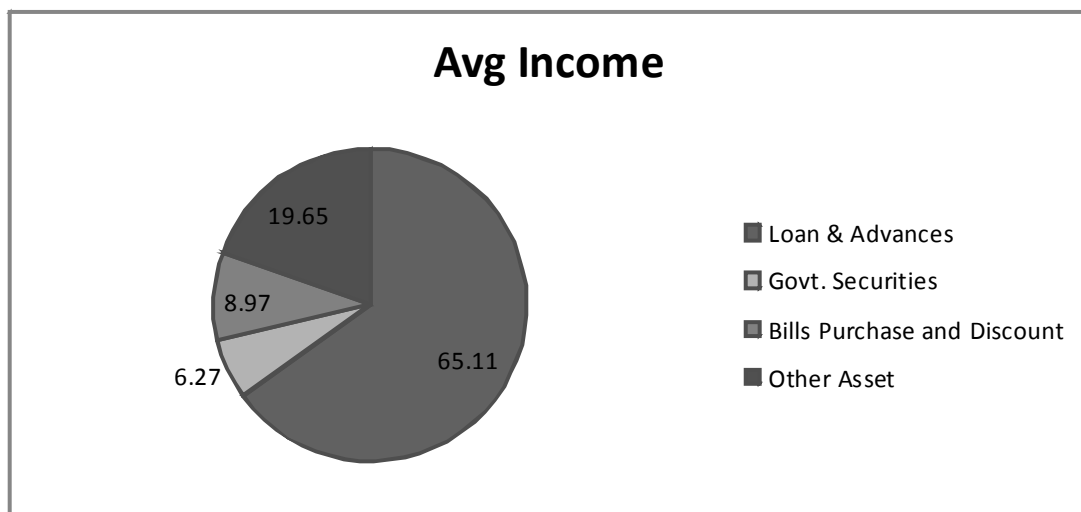
higher than that of earning contributed by the assets i.e. 8.36%. The investment in Govt. securities was decreasing in first three year and thereafter it increased recording 48.87% in 2003/04 which was higher than loans & advances in that period, making an average of 25.75% of assets to the total assets. But the earning contribution by Govt. securities was not satisfactory. It was 13.15% in 2004/05 and decreased to 1.90% in 2006/07 where the investment was 7.68% in that period. In 2009/10 the earning on Govt. securities was only 6.23% over the total earning which was the lowest contribution than that of other assets in spite of higher investment recorded on Govt. securities during that year. Bills purchased & discounted was 2.33% in 2004/05 and 1.39% in 2009/10 making an average of 2.48% sharing to the total assets. The earnings on bills purchased & discounted was 8.52% of total earnings in 2004/05 and it was highest in 2006/07 i.e. 10.51% where the proportionate investment of the assets was only 1.67%. The average investment on the assets was 2.48% out of total assets, which covered an average income of 8.97% to the total income. The proportion of other assets was 2.95% in 2004/05 that contributed income of 6.68% to total income in the same year. In 2009/10 there was only investment of 3.55% on the assets, which covered income of 19.31% to the total income, proportionately 6 times higher. On an average, only 4.36% of the assets covered income of 19.65% to the total income. The CV of the asset was 22.94% which was lower than that of income covered by the assets i. e. 37.86%. This predicts that low variation of the assets has affected highly in generating income, which is quite risky. (Please see table No. 14 & 15 and Pie Chart no. 3 & 4 for details).

In comparison, there was higher investment as loans & advances of NBBL than that of HBL. HBL was investing more in government securities than that of NBBL which had different result in the income of respective assets. There was always might be blocking its investment in loans & advances due to the factor of moist activity and divert its investment in Govt. securities, which one is considered safe investment in spite of getting low return. On an average income of loans & advances of NBBL was significantly greater than HBL. From the above table it can be concluded that loans & advances is only asset that has higher capacity of earning.



Pie Chart No. 3 Average Proportion in Assets of HBL(%)

Pie Chart No. 4 Average income of each asset as % of Total income of HBL



4.3.2 Return on Total Assets (ROA)

Return on assets ratio measures the profitability of bank that explains a firm to earn satisfactory return on all financial resources invested in the banks' assets otherwise its

survivable is threatened. The ratio explains net income for each unit of assets.

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

The return on assets ratio of NBBL and HBL is calculated using formula as below:

$$\text{ROA} = \text{Net income} / \text{Total asset}$$

Table 4.16 Return on Total Assets of NBBL & HBL (in %)

FY/Bank	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	Avg	S.D	C.V
NBBL	3.71	3.67	2.44	2.56	2.78	2.68	2.97	0.52	17.38
Change	-	-0.04	-1.23	0.12	0.22	-0.10	-	-	-
HBL	4.05	3.19	2.92	2.75	3.03	2.68	3.10	0.46	14.72
Change	-	-0.86	-0.27	-0.17	0.28	-0.35	-	-	-
Combined Average = 3.035									

Return on assets of NBBL was founded *highest in 2004/05 i.e 3.71%* over *all* the periods. Then it decreased to 3.67% & 2.44% in 2004/05 & 2006/07 respectively. Some improvement was noticed in forth and fifth year but it was not quite enough than first two year. The return on assets of the bank was 2.68% in 2009/10 making an average of 2.97% which was below than their combined average of 3.035%.

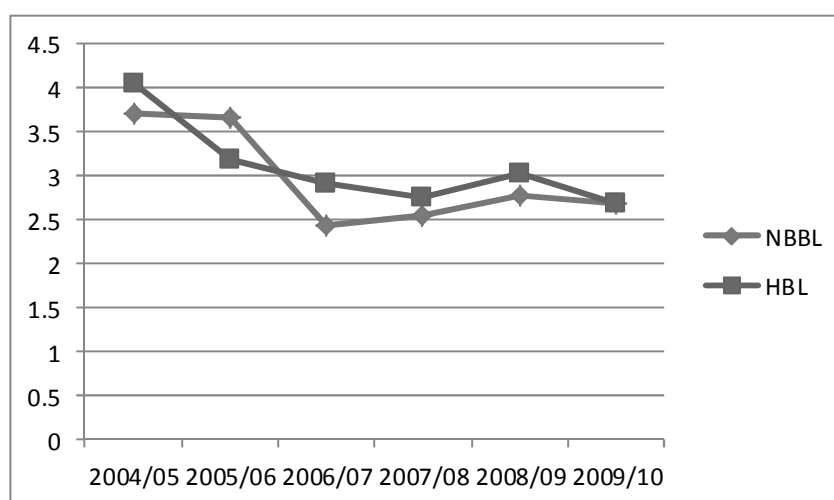
Similarly, the same trend was noticed in HBL. In 2004/05, the return on assets of the bank was highest among all the periods i.e. 4.05% and thereafter it decreased in subsequent three year recording 3.19%, 2.92% & 2.75% respectively. The return on assets of the bank was 2.68% in 2009/10 making an average of 3.10%.

The variation of the return on assets of NBBL was higher than that of HBL. The CV of NBBL was 17.38% and that was 14.72% in HBL. The ratio was highly fluctuated in NBBL than HBL.

The return on assets for the both the bank was found decreasing. HBL had more return on assets on an average than that of NBBL. But both the banks had same ratio i.e. 2.68%

in 2009/10 where the ratio was higher in HBL in the year 2004/05 than NBBL. In comparison, the decreasing rate of return on assets was higher in HBL than NBBL. This predicts that HBL has not been able to utilize its resources in most profitable projects than that of NBBL. (Please see graph no.6 & table 4.16 for details)

Graph No. 6 Line Diagram of Return on Total Assets (in %)



4.3.3 Return on Equity (ROE)

This ratio carries the relationship of return to the sources of funds. The ratio shows whether the banks have earned a satisfactory return from its internal sources or not. ROCE had expressed, previously, the profitability of the banks in relation to the funds supplied by the creditor and owner together but this ratio is used to measure exclusively the return on the owner' funds. Hence, this ratio reveals how profitably the owner' funds have been utilized by the banks and indicates whether a bank can complete for private sources of capital in the economy.

Higher the ratio, higher will be the investment, which the shareholder will undertake. Return in equity ratio for NBBL & HBL can be formulated as below:

$$\text{ROE} = \text{Net Income} / \text{Net worth}$$

The ratio of NBBL and HBL has been presented as below

Table 4.17 Return on Equity (in %)

FY/Bank	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	Avg.	S.D	C.V
NBBL	54.05	42.80	35.73	35.32	33.47	29.25	38.44	8.82	22.95
Change	-	-11.25	-7.07	-0.41	-1.85	-4.22	-	-	-
HBL	63.63	49.61	47.25	50.41	49.39	38.02	49.72	8.21	16.51
Change	-	-14.02	-2.35	3.16	-1.02	-11.37	-	-	-
Combined Average = 44.08									

The return on equity of NBBL was found decreasing throughout the study periods. In 2004/05, the return on equity of the bank was 54.05%, which was the maximum ratio recorded over the periods. Suddenly, the ratio decreased to 42.80% in 2005/06 showing highest negative change of 11.25 points. The ratio further decreased to 35.73%, 35.32% & 33.47% in subsequent three year. The lowest ROE of the bank was recorded in 2009/10 i.e 29.25%. The bank never regained 54.05% in later year. Thus, the bank is unable to earn return from its internal sources later. It can be said that the bank is not able to utilize the owner' funds profitably. The bank, however, had ratio of 38.44% on an average.

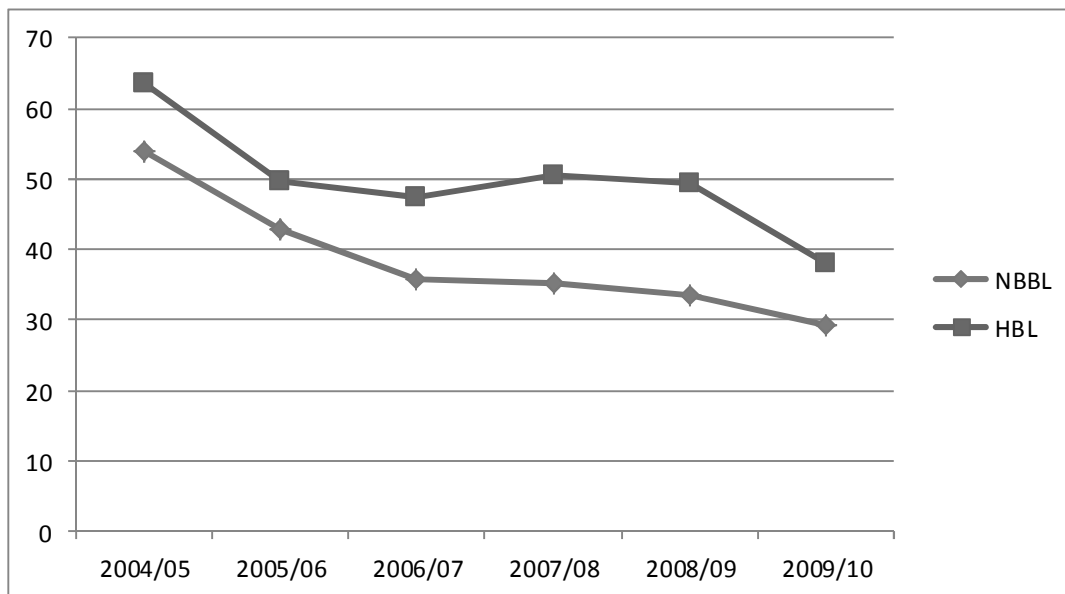
The return on equity of HBL was found fluctuating in nature. The ratio was 63.63% in 2004/05 recorded highest among all the periods. The ratio decreased to 49.61% in the following year showing highest negative change of 14.02 points. It further decreased to 47.25% in 2006/07. An improvement by 3.16 points noticed in 2007/08 having ratio of 50.41%. Thereafter, the ratio of bank reduced to 49.39% & 38.02% in 2008/09 & 2009/10 respectively. On an average, the ratio the bank was 49.72%.

On the basis of the combined average of 44.08%, the ratio of NBBL was found almost below than combined average except in 2004/05, where HBL had the ratio higher over all periods except in 2009/10 than their combined average. Coefficient of variation shows that ratio of NBBL was highly fluctuated than the ratio of HBL i.e. $CV=22.95\% > CV=16.51\%$. HBL seems more consistent with the ratio than that of NBBL

Both the banks had satisfactory return on equity during 2004/05 (above 50%) which shows that both banks had been utilized its shareholder equity in most efficient manner. But HBL is better enough to maintain return on equity compared to NBBL on an

average, though the ratio was falling downward in last two year. (Please see Graph no. 7 & table 4.17 for details)

Graph No. 7 Line Diagram of Return on Equity (%)



4.4 Market Related Ratios

In order to see market performance of the banks (NBBL & HBL) various market-related ratios are computed.

4.4.1 Earning Per Share (EPS)

The profitability of a bank from the point of view of the ordinary shareholder is earning per share. The ratio explains net income for each unit of shares. Earning per share of an organization gives the strength of the share in his market. As EPS does neither reveal how many dividends paid to the owner nor how much of the earnings retained by an organization. Thus, it only shows how much theoretically belongs to the ordinary shareholder. In order to see the strength of the share in the markets EPS of NBBL & HBL are calculated as below:

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

EPS of NBBL & HBL is tabulated as below:

Table 4.18 Earning Per Share (in NRs)

FY/Bank	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	Avg	S.D	C.V
NBBL	17.61	50.66	68.94	116.28	82.81	18.27	59.10	38.44	65.05
Change	-	33.05	18.28	47.34	-33.47	-64.54	-	-	-
HBL	115.08	113.31	86.07	83.08	93.57	60.26	91.90	20.55	22.36
Change	-	-1.77	-27.24	-2.99	10.49	-33.31	-	-	-
Combined Average = 75.50									

The earnings per share of NBBL was found increasing in first four year and started decreasing in last two year. EPS of the bank was Rs. 17.61 in 2004/05 and increased to Rs. 116.28 in 2007/08 recording highest EPS throughout the study period. Thereafter, the EPS of the bank was drastically decreased to Rs18.27 in 2009/10 showing highest negative change of Rs 64.54 over last year. However, the average earning per share of the

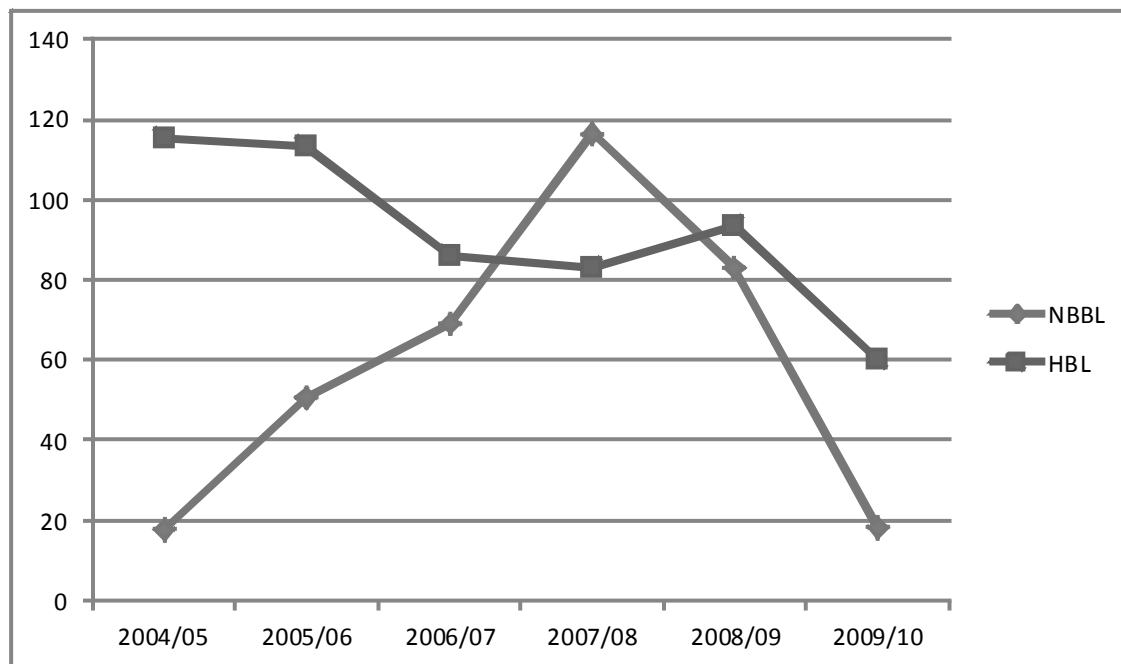
bank was Rs 59.10.

The earning per share of HBL was recorded higher during all periods than NBBL. Some fluctuations have been noticed in earning per share of the bank during the periods. In 2004/05, EPS of the bank was Rs1 15.08 and decreased in subsequent three year recorded Rs. 83.08 in 2007/08. Then it increased to Rs. 93.57 in the year 2009/10. But again it dropped to Rs 60.26 in 2009/10 making an average EPS of Rs 91.90.

The coefficient of variation was found higher in NBBL than that of HBL i.e. $CV = 65.05 > CV = 22.36$, which predicts that there was high variation in earning per share of NBBL than that of HBL.

However, the earning per share of HBL was recorded higher than that of NBBL. The trend was very good in NBBL in first four year and in 2006/07, EPS was higher in NBBL than HBL. But it dropped faster in last two year than HBL. The numbers of share outstanding and low earning in last year might be the factor of decreasing EPS of NBBL. The average EPS of HBL was better enough over NBBL, which obviously increases the strength of the share better in the market to improve market price of the share than by NBBL. (Please see Graph no. 8 & table 4.18 for details).

Graph No. 8 Line Diagram of Earning Per Share (NRs)



4.4.2 Price Earning Ratio (P/E Ratio)

Price earning ratio reflects the price currently being paid by the market for each rupee of currently recorded EPS. In other words, it measures investors' expectations and the market appraisal of the performance of a firm. It is an indication of the way investor

thinks that the banks would perform better in the future.

Higher market price suggests that investor expect earnings to grow and this gives a high P/E implies that investor feel that earning are not likely to rise.

Price earning ratio is calculated as below:

$$P/E \text{ ratio} = \text{Market price of a share} / \text{Earning per share}$$

The ratio of NBBL and HBL is presented below:

Table 4.19 Price Earning Ratio (in times)

FY/Bank	2005/06	2006/07	2007/08	2008/09	2009/10	Avg.	S.D	C.V
NBBL	4.97	8.94	12.92	13.28	26.82	13.39	8.24	61.52
Change	-	3.97	3.98	0.36	13.54	-	-	-
HBL	6.66	11.62	20.46	16.03	16.59	5.29	5.29	37.03
Change	-	4.96	8.84	-4.43	0.56	-		-
Combined Average = 13.83								

The price-earning ratio of NBBL was found increasing throughout the study periods. The PE ratio of the bank was 4.97 times in 2005/06. It increased to 8.94 times & 12.92 times in 2006/07 and 2007/08 respectively due to highly increment of market price of the share in comparison to earning per share during that period. Further, price earning ratio of the bank increased to 13.28 times & 26.82 times in 2008/09 & 2009/10 respectively. The market price of share of the bank was decreasing last three year even though P/E ratio of the bank was recorded higher during those periods because of the earning per share of the bank was very lower at that time than before. So far, the bank had the price-earning ratio of 13.39 times on an average.

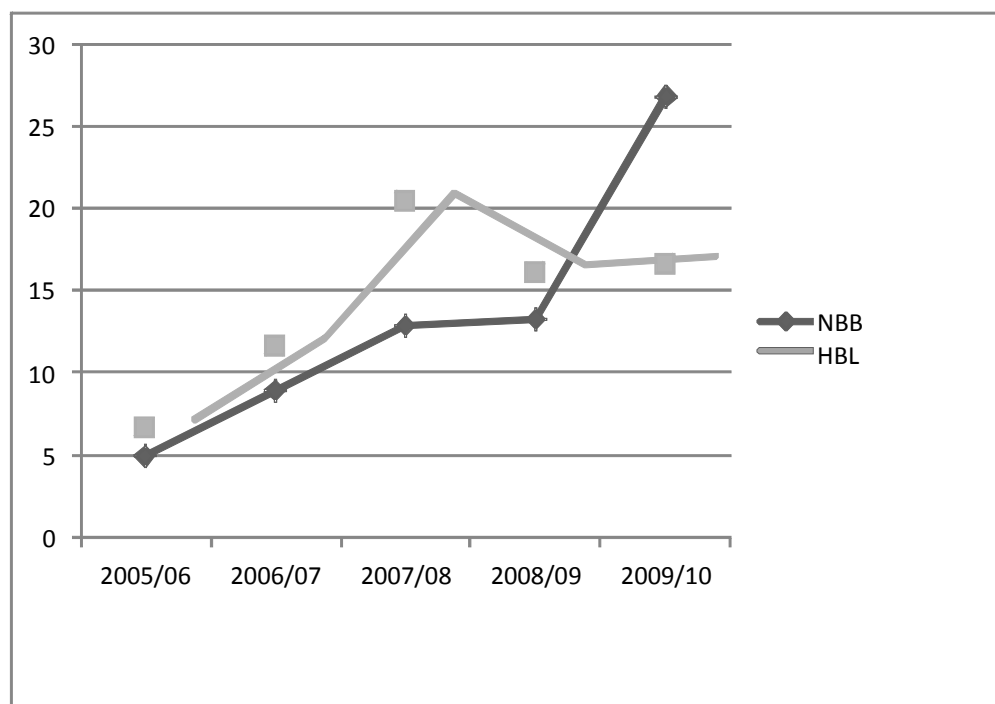
Similarly, the price earning ratio of HBL was recorded increment during the study periods except in 2008/09 because of market price of share was highly decreased at that time than previous year in comparison to earning per share. The P/E ratio of the bank

was recorded 6.66 times in 2005/06 and the ratio was highest in 2007/08 i.e. 20.46 times. The bank never regained the ratio of 20.46 times then after. The ratio was recorded 16.59 times in 2009/10 making an average ratio of 14.27 times.

On the basis of combined average, the ratio of NBBL was above the average only in 2009/10 where the ratio of HBL was above the average in last three year. The ratio of both the banks was below combined average in all rest of the periods.

Coefficient of variation of the ratio of NBBL was higher than that of HBL. This depicts that the fluctuation of the ratio is more in NBBL in comparison. However, both the banks can be said to have fluctuated P/E ratio over the periods i.e. $CV = 61.52\% > CV = 37.03\%$. Both the banks have higher P/E ratio but on an average, HBL leads NBBL in this regard. (Please see Graph no.9 and table 4.19 for details)

Graph No. 9 Line Diagram of Price Earning Ratio (times)



Statistical Analysis

This chapter incorporates some statistical tools, which are used to analyze the data to achieve the objects of the study. Such statistical tools are Karl Pearson's correlation coefficient, multiple regression analysis and student's t-test.

4.5 Correlation Analysis

Coefficient of correlation between EBIT & Interest Payment

The relationship between EBIT & Interest payment is evaluated in order to measure debt-serving capacity of the banks. It is assumed that there is significant relationship between EBIT & interest payment. Here interest payment (X) is dependent variable and EBIT (Y) is independent variable.

The following result was obtained for NBBL and HBL.

Table 4.20 Correlation between EBIT & Interest Payment

	NBBL		HBL	
	Interest Payment(X)	EBIT(Y)	Interest Payment(X)	EBIT(Y)
2004/05	99714000	130763000	365162000	568327000
2005/06	175736000	262573000	474490000	691466000
2006/07	278719000	402194000	533590000	785059000
2007/08	414993000	618694000	594800000	908496000
2008/09	515848000	799799000	734518000	1165880000
2009/10	552743000	653527000	578134000	927180000
r	0.97		0.99	
r ²	0.93		0.98	
P.E.	0.018		0.006	
6P.E.	0.109		0.033	
Relationship	Positive		Positive	
Sig./Insig.	Significant		Significant	

$$r = \frac{x.y}{\sqrt{x^2} \cdot \sqrt{y^2}}$$

$$P.E = 0.6745 \times (1 - r^2) / \sqrt{n}$$

The correlation between EBIT & Interest payment of NBBL was 0.97 and it was 0.99 in HBL, which showed higher positive relationship in both the banks. Coefficient of determination (r^2) of NBBL indicated that 93% of the variation in interest payment was explained by the independent variable (EBIT) whereas 98% of the variation in the interest payment was explained by EBIT of HBL. Considering the probable error (P.E.), the value of 'r' of both the banks were greater than six times of the P.E. Therefore, we can say that the value of 'r' was significant i.e., there was significant relationship between EBIT & Interest payment. This depicts us that the banks are significant relationship between EBIT & Interest payment. This depicts us that the banks are significantly able to service their debt. (Please see Table 4.20 for details)

4.5.1 Correlation Coefficient between Return & Debt Capital

The relationship between return and debt capital of both the banks is analyzed in order to examine whether debt capital is significant in generation more returns. It is assumed that there is significant relationship between return and capital. Here, Return (X) is dependent variable and Debt capital (Y) is independent variable.

Table 4.21 Correlation between Return and Debt Capital

	NBBL		HBL	
	Interest Payment(X)	Debt capital(Y)	Interest Payment(X)	Debt capital(Y)
2004/05	130763000	1458065443	568327000	6358055000
2005/06	262573000	2588954466	691466000	8171128000
2006/07	402194000	4712555398	785059000	10548993000
2007/08	618694000	7189285837	908496000	14993205000
2008/09	799799000	9998792751	1165880000	18302300000
2009/10	653527000	10475730083	927180000	19814319000
r	0.96		0.89	
r^2	0.93		0.79	
P.E.	0.02		0.057	

6P.E.	0.12	0.34
Relationship	Positive	Positive
Sig. /Insig.	Significant	Significant

$$r = \frac{x.y}{\sqrt{x^2} \cdot \sqrt{y^2}}$$

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

From the above, correlation between return and total debt capital in case of NBBL was 0.96 which showed high positive relationship. This infers that increase in total debt capital increases return. Coefficient of determination (r^2) of the bank was 93%, indicated that 93% of the variation in the return was explained by the debt capital. The probable error (P.E.) of the bank was 0.12 less than value of 'r'. This indicated that there was significant relationship between the variables. This depicts that debt capital of the bank is significant in generating more returns.

Similarly, correlation between return and total debt capital of HBL was 0.89, which showed that the variables are highly positively correlated. This infers that increase in debt capital increases return. Coefficient of determination (r^2) of the bank indicated that 79% of the variation in dependent variable (return) was explained by independent variable (total debt capital). Considering the probable error (P.E.), the value of 'r' of the bank was greater than six times of the P.E. therefore, the value of 'r' was significant. This depicts that debt capital of HBL was significant in generating more returns. (Please see table 4.21 for details).

4.6 Test of Hypothesis

The researcher has stated earlier in the introduction chapter some null hypothesis for the purpose of evaluating the difference between banks regarding some financial ratios. The researcher has supposed that the commercial banks operating under the same environment and of the same class as well are of no significant difference regarding capital structure and profitability. So, the hypothesis testing i.e., t-test is performed as

below for NBBL and HBL taking as sample units.

Student's t- test regarding capital structure:

4.6.1 Test of Hypothesis on Fixed Deposits to Net Worth Ratio (FD/NW)

Let X1 and X2 be denoted as fixed deposits to net worth ratio of NBBL & HBL respectively.

Null hypothesis (H0): $\mu X_1 = \mu X_2$ i.e., there is no significant difference between the mean ratios of fixed deposit to net worth of NBBL & HBL.

Alternative hypothesis (H1): $\mu X_1 \neq \mu X_2$ i.e., there is significant difference between the mean ratios of fixed deposit to net worth of NBBL & HBL.

[See Appendix A (1) for detail calculations Under H_0 test statistic is;

$$t = \frac{\bar{X} - \bar{Y}}{\sqrt{S^2 \left[\frac{1}{n_1} + \frac{1}{n_2} \right]}}$$

$$t = \frac{698.18 - 395.74}{\sqrt{9282.42 \left[\frac{1}{6} + \frac{1}{6} \right]}}$$

$$t = 5.44$$

Tabulated value of 't' at 5% level of significance for 10 degree of freedom (d.f.) is 20228.

Where,

$$d.f. = n_1 + n_2 - 2$$

Decision:

Since the calculated value of 't' i.e, 5.44 is higher than tabulated value of 't' at 5% significant level i.e., 20228, H_0 is rejected which explains that there is significant difference between the mean ratios of ED/NW of NBBL & HBL.

4.6.2 Test of Hypothesis on Total Debt to Net Worth Ratio (TD/NW)

Let X_1 and X_2 be denoted as total debt to Net Worth Ratio of NBBL & HBL respectively.

Null hypothesis (H_0): $\mu_{X_1} = \mu_{X_2}$ i.e., there is no significant difference between the mean ratios of Total Debt to Net Worth of NBBL & HBL.

Alternative hypothesis (H_1): $\mu_{X_1} \neq \mu_{X_2}$ i.e., there is significant difference between the mean ratios of Total Debt to Net Worth of NBBL & HBL.

[See Appendix A (2) for detail calculations] Under H_0 test statistic is;

$$t = \frac{\bar{X} - \bar{Y}}{\sqrt{S^2 \left[\frac{1}{n_1} + \frac{1}{n_2} \right]}}$$

$$t = \frac{1225.73 - 1505.29}{\sqrt{21459.38 \left[\frac{1}{6} + \frac{1}{6} \right]}}$$

$$t = -3.29$$

$$|t| = 3.29$$

Tabulated value of 't' at 5% level of significance for 10 degree of freedom (df) is 2.228.

Where,

$$d.f. = N_1 + n_2 - 2$$

Decision:

Since the calculated value of 't' of i.e., 3.29 is higher than tabulated value of 't' at 5% significant level i.e., 2.228, H₀ is rejected which explains that there is significant difference between the mean ratios of TD/NW of NBBL & HBL

4.6.3 Test of Hypothesis on Return on Total Assets (ROA)

Let X₁ and X₂ be denoted as Return on Total Assets of NBBL & HBL respectively.

Null hypothesis (H₀). $\mu_1 = \mu_2$ i.e., there is no significant difference between the mean ratios of Return on Total Assets of NBBL & HBL.

Alternative hypothesis (H₁): $\mu_1 \neq \mu_2$ i.e., there is significant difference between the mean ratios of Return on Total Assets of NBBL & HBL.

[See Appendix A (4) for detail calculations] Under H₀ test statistic is;

$$t = \frac{\bar{X} - \bar{Y}}{\sqrt{S^2 \left[\frac{1}{n_1} + \frac{1}{n_2} \right]}}$$

$$t = \frac{2095 - 3.10}{\sqrt{0.29 \left[\frac{1}{6} + \frac{1}{6} \right]}}$$

$$t = -0.42$$

$$|t| = 0.42$$

Tabulated value of 't' at 5% level of significance for 10 degree of freedom (df) is 2.228.

Where,

$$d.f. = N_1 + n_2 - 2$$

Decision:

Since the calculated value of 't' of i.e., 0.42 is lower than tabulated value of 't' at 5% significant level i.e., 2.228, H_0 is accepted which explains that there is no significant difference between the mean ratios of ROA of NBBL & HBL.

4.6.4 Test of Hypothesis on Return on Equity (ROE)

Let X_1 and X_2 be denoted as Return on Equity of NBBL & HBL respectively

Null hypothesis (H_0): $\mu_{X_1} = \mu_{X_2}$ i.e., there is no significant difference between the mean ratios of Return on Equity of NBBL & HBL.

Alternative hypothesis (H_1): $\mu_{X_1} \neq \mu_{X_2}$ i.e., there is significant difference between the mean ratios of Return on Equity of NBBL & HBL.

[See Appendix A (5) for detail calculations]

Under H_0 test statistic is;

$$t = \frac{\bar{X} - \bar{Y}}{\sqrt{S^2 \left[\frac{1}{n_1} + \frac{1}{n_2} \right]}}$$

$$t = \frac{38.44 - 49.72}{\sqrt{72.60 \left[\frac{1}{6} + \frac{1}{6} \right]}}$$

$$t = -2.30$$

$$|t| = 2.3$$

Tabulated value of 't' at 5% level of significance for 10 degree of freedom (df) is 2.228.

Where,

$$d.f. = n_1 + n_2 - 2$$

Decision:

Since the calculated value of 't' of i.e., 2.30 is higher than tabulated value of 't' at 5% significant level i.e., 2.228, H_0 is rejected which explains that there is significant difference between the mean ratios of ROE of NBBL & HBL.

4.6.5 Test of Hypothesis on Earning Per Share (EPS)

Let X_1 and X_2 be denoted as Earning Per Share of NBBL & HBL respectively.

Null hypothesis (H_0): $\mu X_1 = \mu X_2$ i.e., there is no significant difference between the mean ratios of Earning per Share of NBBL & HBL.

Alternative hypothesis (H_1): $\mu X_1 \neq \mu X_2$ i.e., there is significant difference between the mean ratios of Earning per Share of NBBL & HBL.

[See Appendix A (6) for detail calculations] Under H_0 test statistic is;

$$t = \frac{\bar{X} - \bar{Y}}{\sqrt{S^2 \left[\frac{1}{n_1} + \frac{1}{n_2} \right]}}$$

$$t = \frac{59.10 - 91.90}{\sqrt{949.96 \left[\frac{1}{6} + \frac{1}{6} \right]}}$$

$$t = -1.84$$

$$|t| = 1.84$$

Tabulated value of 't' at 5% level of significance for 10 degree of freedom (df) is 2.228.

Where,

$$\text{d.f.} = n_1 + n_2 - 2$$

Decision:

Since the calculated value of 't' of i.e., 1.84 is lower than tabulated value of 't' at 5% significant level i.e., 2.228, H_0 is accepted which explains that there is no significant difference between the mean ratios of ROE of NBBL & HBL.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

Nepal had a late start in development. Its pace of industrialization has been slow. Various censuses of banking establishment indicate that the number of banking establishment has been increasing in recent year. The target and programs set by various development plans for banking development were ambitious. Establishment of banking sector is the main way of industrial development in the country whereas banks directly and indirectly involved in industrial development.

Banks play an important role in the economic development of a country. Bank serves as a mechanism through which all the financial systems are controlled and it directs its member institute towards the economic development of any country. It accumulates fund from various units of the society and transfer it to the productive sectors. This way it tends to increase employment opportunity, industrial activities, trade business etc. "Nepal Bank Limited" is the first bank established in the year 1937 A.D. and dominated the whole financial sector in the country for almost 30 year. It was only in 1967 that the second commercial bank "Rastriya Banijya Bank" was established with the total government control. The banks had opened numerous branches covering almost all accessible parts of the country. The banking operations of three joint venture commercial banks helped to get modern banking services in the country. In course of them many banks have been established with various perspectives. Today there are altogether 24 banks operating in the country and most of them are joint venture banks. Banks are having

competition and most of them were successful in providing customer satisfaction by providing various services.

Capital structure is the composition of debt and equity securities and it considered as financial decision undertaken by the financial manager. The must decide when, where and how to acquire the funds to meet the firms investment needs. The financial manager must strive to obtain the best financial mix or optimum capital structure when the debt-equity proportion maximizes the market value of the shares. The usage of equity funds and at the same time is also increase risk. A proper balance must be striving between the return and risk in order to maximize the market value of the shares. It plays a very important role in the development of all sector of whole economy and actually works as a lubricant by providing financial resources. It operates as an intermediary between financial surplus units (lender/saver) and financial deficit units (borrower/spender). A modern financial sector provides electronic banking services (e-banking), ATM services, credits card, debits cards, innovative insurance products and services, attractive pension schemes and derivatives, hedging and financial future.

Capital structure mostly affects in value of firms. So, there should be most proper to maximize its profit and get higher profitability is the most necessary part of the firms, because without profit the firms cannot run further. Every firm went to make many profit but they also considered customer ability to pay for product. Therefore to fixed the price of product, firms must be sincere and determined the price which cannot get less and not high to pay for customer.

This study is mainly based on secondary and primary data providing by concern banks, from website, and respondent. Among the listed banks two banks are selected as a sample of study. The main object of the study is to assets the capital structure and to know the effect of leverage on the risk and return to the shareholder. However due to the time and resource constraints all types of analysis are not conducted information are gathered during the period of 2005 to 2010. Those specific objectives are, i) to evaluate whether the capital structure affects the profitability, EPS, P/E ratio of the banks, ii) to test whether the profitability fluctuates with the capital structure of the sampled banks, iii) to analyze relationship between the capital structure and profitability index, size of

the employed and cost of capital of the sampled banks. On the other hand, the traditional view is that, the value of the firm can be increased or the cost of capital can be reduced by the judicious mix of debt and equity capital. The cost of capital declines with leverage because debt capital is cheaper than equity capital within reasonable or acceptable, limit of debt.

5.2 Conclusion

To achieve the objects, we use financial tools like; capital structure analysis, profitability analysis, and statistical tools like; coefficient of variation (CV), correlation analysis, coefficient of determination, test of hypothesis. The major findings of the study are summarized as follow:

1. Fixed deposit of NBBL is found to be increasing year by year since 2004/05. The FD index is 608.11 points in the year 2009/10, which shows highly increment of fixed deposit of bank over six year periods. In case of HBL, fixed deposits are also found increasing except in 2006/07. However the FD index of 289.35 points in 2009/10, reporting increasing in fixed deposit of the bank over six year. The final year FD index shows that the rate of increment of fixed deposit is higher in NBBL than that of HBL. But, the volume of fixed deposits in 2009/10 for the both the banks is quite similar (NBBL = 5.45 Million, HB1 =5.48 Million). The average change in fixed deposits of NBBL is 46.51%, which is higher than that of HBL i.e., 26.35%.

2. Fixed deposits of NBBL, on an average, has a claim of 53.67% over total liability whereas it is found only 24.75% in HBL which is lower then that of NBBL during stubby period. It is recorded 52.06%in NBBL and 27.66% in HBL. The composition of fixed deposit in total liability as well as total debt is higher in NBBL than that of HBL.

3. Shareholder' equity of both the banks has been increasing throughout the study period. But shareholder' equity of NBBL has been increased more than that of HBL i.e., average change = 61.23%>28.38%.

4. Reserve fund of both the banks has been increasing over the study periods. Retained earning of NBBL has been increasing in first five year and decreases in last year. But, in case of HBBL, retained earning is declining in first five year and increases in 2009/10.

5. The index of equity for both the banks showing increment in equity over last six year. In 2009/10, the equity index is 966.42 points and 347.29 points in NBBL & HBL respectively over six periods which shows that NBBL is rapidly enhancing its equity position by increasing reserve & retained earnings comparatively than that of HBL.

6. Debt equity ratio in terms of fixed deposits to net worth of NBBL is found extremely higher in 2004/05 i.e., 851.27%, which reduced thereafter to the least proportion of 535.65%. Similarly, the ratio of HBL is fluctuated within the range from 315.12% to 449.97%.

7. The ratios of both the banks is fluctuating in the first four year but the banks are able to reduce the proportion of debt equity capital after the year 2007/08 . However, both the banks are found using more deposits in relation to net worth.

8. The average proportion of fixed deposits to net worth is found more in NBBL compared to HBL taking combined average of 546.96% i.e., 698.18%>395.74%.

9. But according to the test of hypothesis i.e., student t-test, it is found that there is significant difference between the mean ratios of fixed deposit to net worth of NBBL & HBL at 5% significant level.

10. It can be concluded that both the banks have more claims of creditor than that of owner. Moreover, in banking business, fixed deposits (on which the banks are dependent to strengthen the profitability) would obviously more than the equity capital when capital markets are not well developed.

11. Debt equity ratio in term of total debt to net worth of NBBL is found extremely

higher in 2006/07, i.e., 1405.01% which is reduced thereafter and it is found least in 2009/10 i.e., 1028.92%. The bank has employed the debt capital highly in its financial structure. However, the bank has able to reduce the proportion of debt in its capital mix in later year.

12. The ratio of HBL is found 1470.54% in 2004/05 and increased to 1722.30% in 2006/07 which is extremely highest. But it is found decreasing later two year. The bank has able to reduce the proportion of debt in last two year.

13. Both the banks are, to some extent, able to reduce the debt capital in its financial structure in last two year. However, both the banks are found using more debt capital in its financial mix, which depicts that the banks are facing heavy burden of interest payment. Such a highly leverages may be advantage for the firm like NBBL & HBL. However, it may jeopardize the solvency of the firm.

14. Over viewing the extremely high ratios of both the banks, it can be concluded that the banks may lead to inflexibility in the operations in future.

15. It can be concluded that NBBL uses higher fixed deposits portion in its permanent capital than by HBL.

16. This researcher finds that loans and advances of both the banks are invested mostly at earning assets. It is found that 82.47% of the total assets as loans advances alone cover the income 80.46% of total income of NBBL & 67.41% of total assets as loans and advances cover 65.11% of total income in case of HBL on an average. The proportion of investment in loans and advances of HBL is smaller than that of NBBL so as the income coverage,

17. Earning capacity of other two earning assets is found much lower in NBBL i.e., 9.66% of total assets as Govt. securities cover income of only 0.82% and 4.95% of total assets as Bills purchased and discount cover income of only 12.36% of total income on an average. Whereas, it is found that 25.75% of total assets as Govt. securities cover income of 6.27% and 2.48% of total assets as Bills purchased and discount cover 8.97% of total income of HBL on average.

18. It can be concluded that the profitability of the banks is mostly contributed by loans & advances alone than other assets. It is found that NBBL more depends on loans & advances for its earnings whereas earnings assets of HBL are found to be well diversified than that of NBBL. Bills purchased and discount, LCs, Bank guarantee etc. are the less risky than loans & advances; HBL is found well enough to cover its earnings from less riskier assets than that of NBBL.

19. Return on deposits of both banks is found to be fluctuating in nature. The highest negative change by 1.40 recorded in the year 2006/07 of NBBL and same change by 1.09 recorded in 2005/06 in HBL. Both the banks profitability in terms of ROD is declining in 2006/07. It is found that there is no satisfactory return on deposits of both the banks. Moreover, it is found that there is no significant difference between the mean ratios of ROD of NBBL & HBL when student t-test is performed at 5% significant level.

20. It can be concluded that HBL is able to mobilize and utilize deposits better than that by NBBL as their average ROD is 3.54% & 3.49% respectively.

21. Return on total assets of both the banks is found fluctuated over the period. The lowest ratio recorded in 2006/07 for both the banks i.e., 2.44% of NBBL and 2.92% of HBL. On an average, the ratio of NBBL is 2.97% whereas it is 3.10% in HBL. better future. It can be concluded that both the banks are able to service the debt capital but the ratio of both banks is not said to be sufficient when debt capital is extremely higher and increasing trend.

The two banks are using equity as well as debt capital in their capital structure. The composition of debt and equity affect every kinds of financial decision. In the increasing or decreasing of debt and equity proportion, the EPS, P/E ratio, ROE, ROA, DPS are also fluctuating. The mix of proportion effects on the banks' output by directly and indirectly. So, the financial manager should be contentious about the decision of mixing of debt and equity. The future of firms' depends upon it capital structure model. The firm can raise and get profit if there is a suitable capital structure is made; otherwise the firm can not be run moreover.

The capital structure mix is very powerful tools to get profit of any firms'. However the

study clearly shows that the proportion of debt and equity determined the future of a firm's. So, at last the researcher concluded that the capital structure really affects the profitability of a firm's.

5.3 Recommendations

After identifying strengths and weaknesses derived from major findings, some practicable recommendations are suggested. The researcher expects that the providing suggestions would help for the betterment of the banks in relation to capital structure management and the profitability for mitigating the above constraints. The recommendations are as follow:

1. The capital structure of both the banks (NBBL & HBL) is highly leveraged. The proportion of debt and equity capital should be dedicated by keeping in mind the effect

of tax advantage and financial distress. The banks, when it is difficult to pay interest and principal ultimately lead to liquidation of bankruptcy.

Since there is no significant relationship between debt equity ratio in terms of fixed deposits to net worth and overall capitalization rate of both the banks, the capital structure positions not better. Keeping this fact in mind both the banks are required to maintain improved capital structure by increasing equity base i.e., issuing more capital, expanding general reserve and retaining more earnings. With this improved capital structure of the banks, it will compromise among the conflicting factor of cost and risk.

2. EPS of both the banks is good enough to attract general public towards buying the shares. So, the banks are suggested to collect the funds through issuing shares.

3. Return ratio like Return on debt and Return on assets are not satisfactory in both the banks. Having geared up capital structure position and insufficient returns represent the weak aspect of these two banks. Both the banks are suggested to use the resources into the most profitable sector.

According to the income composition of both the banks, it is found that commission and discount would increase the net income more than by the other investment proportionately. So, it is recommended to concentrate their activities in purchasing and discounting bills and issuing guarantees, LCs more than the other activities.

4. Both the banks vary in case of total assets, number of staffs, and number of bank branches and their volume of transactions. Both the banks are efficient and well established doing well.

However, office-operating expenses of HBL are quite more than that of NBBL considering the number of bank branches. And also staff expenses of the same bank are quite higher than that of NBBL considering the number of staff (Full time). Similarly, provision for staff bonus of HBL is also higher than that of NBBL. Therefore, HBL is suggested to curtail down the unnecessary expenses, which ultimately improve the profitability condition of the bank better than present position.

5. Joint venture banks have not been able to collect the saving from rural areas. So, they

are recommended to open up branches in rural areas. It is true that the financial strength of a bank heavily depends upon the market in urban area. But to concentrate banking services only in urban areas is not desirable for the economic development of the country. Rural communities are being neglected by JVBs. They have not opened their branches to serve society adequately. Concentration of branches only in urban areas does not make any contribution to the economic development of the country. Banks are the essential and effective means to mobilize financial resources throughout the country. So, the banks are required to be co-operative and should expand their branches to the rural areas. This will ultimately influence the profitability of the banks also.

6. JVBs in Nepal have concentrated their business with big business and industrialists. Their clients are mostly big manufacturer, carpet and garment exporter, travel agencies, cargo agencies etc. Therefore, the JVBs are suggested to open their door to the small depositor and entrepreneur.

7. Nepalese shareholder is very much concerned about the payment of cash dividend by JVBs rather than their financial statement. Therefore, the banks are suggested to pay cash dividend consistently. Especially, NBBL (being profitable bank) is weak in paying cash dividend. Dividend pay out ratio should be determined keeping in mind the shareholder's expectation and the growth requirement of the banks. A higher pay out attracts both the existing and potential investor leading to increase in market price of the share which consequently leads to the strengthened financing capability. Both the banks' cash dividend is decreasing in recent periods. So, both the banks are recommended to maintain consistent dividend policy.

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APPENDIX

(1) Appendix for Test of Hypothesis

Fixed deposits to Net worth (DER=FD/NW)

FY	NBBL		HBL	
	X ₁	$dx_1^2 = (X_1 - \bar{X}_1)^2$	X ₂	$dx_2^2 = (X_2 - \bar{X}_2)^2$
2004/05	851.27	23,436.55	438.11	1,795.22
2005/06	632.74	4282.39	395.02	0.52
2006/07	781.61	6,960.56	315.12	6,499.58
2007/08	792.06	8,813.45	449.97	2,940.89
2008/09	595.73	10,496.00	411.21	239.32
2009/10	535.65	26,416.00	365.02	943.72
	$\sum X_1 = 4,189.06$	$\sum dx_1^2 = 80,404.96$	$\sum X_2 = 2,374.45$	$\sum dx_2^2 = 12,419.25$

Where,

X_1 = DER in terms of FD/NW of NBBL

X_2 = DER in terms of FD/NW of HBL

$$\bar{X}_1 = \sum X_1 / n_1 = 4189.06 / 6 = 698.18$$

$$\bar{X}_2 = \sum X_2 / n_2 = 2,374.45 / 6 = 395.74$$

$$S^2 = \frac{dx_1^2 \Gamma \quad dx_2^2}{n_1 \Gamma n_2 Z^2} = \frac{80404.96 \Gamma 12419.25}{6 \Gamma 6 Z^2}$$

$$S^2 = 9282.42$$

A (2) Appendix

Total Debt to Worth (DER = TD/NW)

FY	NBBL		HBL	
	X_1	$Dx_1^2 = (X_1 - \bar{X}_1)^2$	X_2	$dx_2^2 = (X_2 - \bar{X}_2)^2$
2004/05	1,384.02	24,055.84	1,470.54	945.37
2005/06	1,091.90	17,909.91	1,450.29	2,601.42
2006/07	1,405.01	32,139.53	1,517.62	266.53
2007/08	1,307.07	6,615.68	1,722.30	48,844.44
2008/08	1,136.46	7,792.13	1,527.39	681.27
2009/10	1,028.92	38,733.89	1,319.61	33,007.81
	$\sum X_1 = 7,354.37$	$\sum dx_1^2 = 128,246.97$	$\sum X_2 = 9,007.74$	$\sum dx_2^2 = 86,346.85$

Where,

X_1 = DER in terms of TD/NW of NBBL

X_2 = DER in terms of TD/NW of HBL

$$\bar{X}_1 = \sum X_1 / n_1 = 7,354.37 / 6 = 1225.73$$

$$\bar{X}_2 = \sum X_2 / n_2 = 9,007.74 / 6 = 1,501.29$$

$$S^2 = \frac{dx_1^2 \Gamma \quad dx_2^2}{n_1 \Gamma n_2 \quad Z \quad 2} = \frac{128246.97 \Gamma 86346.85}{6 \Gamma 6 \quad Z \quad 2}$$

$$S^2 = 21,459.38$$

A (3) Appendix

Total debt to Total Assets (TD/TA)

FY	NBBL		HBL	
	X_1	$dx_1^2 = (X_1 - \bar{X}_1)^2$	X_2	$Dx_1^2 = (X_2 - \bar{X}_2)^2$
2004/05	95.07	0.14	93.63	0.005
2005/06	93.50	1.44	93.24	0.101
2006/07	96.09	1.94	93.92	0.132
2007/08	94.77	0.005	93.96	0.157
2008/09	94.38	0.1	93.65	0.007
2009/10	94.36	0.12	92.96	0.365
	$\sum X_1 = 568.18$	$\sum dx_1^2 = 3.74$	$\sum X_2 = 561.36$	$\sum dx_2^2 = 0.767$

Where,

X_1 = DCR in terms of TD/TA of NBBL X_2 = DCR
in terms of TD/TA of HBL

$$\bar{X}_1 = \sum X_1 / n_1 = 568.18/6 = 94.70$$

$$\bar{X}_2 = \sum X_2 / n_2 = 561.36/6 = 93.56$$

$$S^2 = \frac{dx_1^2 \Gamma}{n_1 \Gamma} \frac{dx_2^2}{n_2 \Gamma} = \frac{3.74 \Gamma}{6 \Gamma} \frac{0.767}{6 \Gamma} = \frac{0.45}{6 \Gamma}$$

$$S^2 = 0.45$$

A (4) Appendix

Return on Assets (ROA)

FY	NBBL		HBL	
	X_1	$dx_1^2 = (X_1 - \bar{X}_1)^2$	X_2	$dx_2^2 = (X_2 - \bar{X}_2)^2$
2004/05	3.71	0.5476	4.05	0.9025
2005/06	3.67	0.49	3.19	0.0081
2006/07	2.44	0.2809	2.92	0.0324
2007/08	2.56	0.1681	2.75	0.1225
2008/09	2.78	0.0361	3.03	0.0049
2009/10	2.68	0.0841	2.68	0.1764
	$\sum X_1 = 17.84$	$\sum dx_1^2 = 1.6068$	$\sum X_2 = 18.62$	$\sum dx_2^2 = 1.2468$

Where,

X_1 = ROA of NBBL

X_2 = ROA of HBL

$$\bar{X}_1 = \sum X_1 / n_1 = 17.84/6 = 2.97$$

$$S^2 = \frac{dx_1^2 \Gamma}{n_1 \Gamma} \frac{dx_2^2}{n_2 \Gamma} = \frac{1.6068 \Gamma}{6 \Gamma} \frac{1.2468}{6 \Gamma} = \frac{1.6068 \Gamma 1.2468}{6 \Gamma 6 \Gamma}$$

$$S^2 = 0.29$$

A (5) Appendix

$$\bar{X}_2 = \sum X_2 / n_2 = 18.62 / 6 = 3.10$$

Return on Equity (ROE)

FY	NBBL	HBL		
	X_1	$Dx_1^2 = (X_1 - \bar{X}_1)^2$	X_2	$Dx_2^2 = (X_2 - \bar{X}_2)^2$
2004/05	54.05	243.67	63.63	193.49
2005/06	42.80	19.01	49.61	0.01
2006/07	35.73	7.34	47.25	6.10
2007/08	35.32	9.73	50.41	0.48
2008/09	33.47	24.70	49.39	0.11
2009/10	29.25	84.46	38.02	139.89
	$\sum X_1 = 230.62$	$\sum dx_1^2 = 388.92$	$\sum X_2 = 298.31$	$\sum dx_2^2 = 337.08$

Where,

X_1 = ROE of NBBL

X_2 = ROE of HBL

$$\bar{X}_1 = \sum X_1 / n_1 = 230.62 / 6 = 38.44$$

$$\bar{X}_2 = \sum X_2 / n_2 = 298.31 / 6 = 49.72$$

$$S^2 = \frac{dx_1^2 \Gamma \quad dx_2^2}{n_1 \Gamma n_2 \Gamma 2} = \frac{388.92 \Gamma 337.08}{6 \Gamma 6 \Gamma 2}$$

$$S^2 = 72.60$$

A (6) Appendix

Earning Per Share (EPS)

FY	NBBL		HBL	
	X_1	$Dx_1^2 = (X_1 - \bar{X}_1)^2$	X_2	$Dx_1^2 = (X_1 - \bar{X}_2)^2$
2004/05	17.61	1721.42	115.08	537.31
2005/06	50.66	71.23	113.31	458.39
2006/07	68.94	96.83	86.07	33.99
2007/08	116.28	3269.55	83.08	77.79
2008/09	82.81	562.16	93.57	2.79
2009/10	18.27	166.09	60.26	1001.09
	$\sum X_1 = 354.57$	$\sum dx_1^2 = 7388.28$	$\sum X_2 = 551.37$	$\sum dx_2^2 = 2111.36$

Where,

X_1 =EPS of

NBBL X_2 =

EPS of HBL

$$X_1 = \sum X_1 / n_1 = 354.57/6 = 59.10$$

$$X_2 = \sum X_2 / n_2 = 551.37/6 = 91.90$$

$$S^2 = \frac{\sum x_1^2 - \frac{(\sum x_1)^2}{n_1}}{n_1 - 1} = \frac{7388.28 - \frac{(354.57)^2}{6}}{6 - 1} = 949.96$$

$$S^2 = 949.96$$