

CHAPTER – I

INTRODUCTION

1.1 Background of the study

The commercial bank has been a vital ingredient for economic development. They are intermediaries, which mobilize funds through the prudential combination of investment portfolios in advanced countries .whereas in Nepal the role of commercial banks are still to be realizing as an essential machine of mobilizing internal saving through various banking schemes in the economy. Hence to uplift the background economic condition of the country, the process of capital accumulation among other pre requisition should be expedited.

Capital accumulation plays an essential role in acceleration of economic growth of a nation. But the capacity of saving in developing country is quite low with a relatively higher marginal propensity of conception. As a result developing countries are badly trapped into the vicious circle of poverty. The basic problem of these countries is raising the level of saving and investments. In order to collect the enough saving and put them into productive channels financial institutions are necessary. It will be realized with the economy and either is diverted abroad or used for unproductive consumption or speculative activities.

Capital structure concept holds a major place in a financial management. Capital structure refers the proportion of debt and equity capital .A perfect balance between debt and equity is required to ensure trade off between risk and return. Thus, optimal capital structure means the capital structure having reasonable of proportion of debt and equity. An optimal financial structure makes better use of society's fund of capital resource ,and thus it increase the total wealth of society also by increasing the firm's opportunity to engage in future wealth creating investment, it increase the economy of investment and growth.

Commercial banks are the suppliers of fund for trade and industry, which plays vital role in the economic and financial sector of a country. They help in the formation of capital by investing the saving fund in the productive sector. Rural people of under developing country like Nepal need various banking facilities to enhance its economy. In most of the countries, the banks are generally concentrate in urban and semi –urban sectors .they neglect rural sectors due to heavy risk and low return ,which is in fact ,with out it ,other sector of economy can not be developed.

The concept of bank is developed from the history with the effort of ancient gold smith who developed the practice of storing people’s gold and valuables. They used to receive valuables and used to issue a receipt to the depositors. As such receipts are god for payment equivalent to the amount mentioned, it become like a modern cheque, as a medium of exchange and means of payment.

A firm fulfills its financial needs using different source of financing. These sources of financing may be short term, and long term. Short term source of financing mature with in one year or less and fund raised from long term source of financing can be used for several year . Debt and equity are two major components of total capital of companies, debt is the amount owed for borrowed funds from source such as individual banks, or other financial institutions. Equity is the ownership interest in a form including equity share capital, share premium; preference share capital, free reverses, and surplus profits .The proportion of debt and equity (leverage) in the capital structure differ across companies. The capital structure also varies according the industry and the market situation that the company is operating in. The proportion of short term and long term debt is considered when analyzing the capital structure and when people refer to the capital structure they are most likely to firm’s debt to equity ratio, which provides insight into new risky a company is. There is tradeoff involved. Using debt capital increase the risk associated with the firm’s earning, which tends to decrease the form’s stock price. At the same time however, debt can lead to a higher expected rate of return, which tends to increase form’s stock price.

Capital structure refers to the way a corporation finance itself through some combination of equity shares, equity options, bonds and loan. Capital structure is the outcome of the historical cumulative of timing of the market by managers.

Capital structure is the combination of debt and equity securities that comprise a firm's financing of its assets. Both debt and equity securities are used in most large corporations. The choice of the amount of debt and equity is made after a comparison of certain characteristics of each kind of securities of internal factor related to the firm's operations and of external factor that can affect to the firm.

The capital structure is made up of debt and equity securities, which comprise a form's finance of its assets. It is the permanent source of financing represent by long –term debt and, plus preferred stock, plus net worth. The determination of degree of liquidity of a firm is not the simple task. In the long term liquidity may depend on the profitability of a firm but weather it service to achieve long run profitability depend to some extend on its capital structure. This term includes only long term debt and total stockholders investment. It may be defined as one including short term and long term fund

Capital structure refers to the combination of long term source of funds such as debentures, long term debt, preference share capitals and equity share capital including reserves and surpluses (retained earnings). Capital structure represents the relationship among different kind of long term capital through the issue of common shares sometimes accompanied by preference shares. Firm rises long term capital through the issue of common shares, sometimes accompanied by preference shares .the share capital is often supplemented and other long term borrowed capital

The history of the systematic development of commercial banks in Nepal as compared to other developed country is of recent origin. In Nepal efforts are being made to accelerate the place of economy development after the adaptation of first five-year plan in 1965. Nepal bank limited, the first and oldest bank in modern banking history of Nepal, was established in 1937.AD. (30Th kartik, 1994 BS.) With 51% government

equity. Nepal Bank limited also used to function as central bank of the country till 2012 B.S. On 2013 B.S., Nepal Rastra bank was established as central bank of Nepal under the Nepal Rastra bank act 2012. Government initiated some corrective measure to stabilize the economy the assistance of IMF stand by arrangement in mid 1980s. In F/Y 1985 it subsequently embarked upon structured adjustment program encompassing measures to increase domestic resources mobilization ,strengthen financials sectors and liberalize industrial and trade policies . Since then several financial institutions and commercial joint venture banks have been established in the process of development and liberation policy for the economic development of the nation.

In the early 1980, government permitted the established of foreign joint venture banks in Nepal, As a result, three joint venture banks namely ;Nepal Arab bank limited ,Nepal green ledge bank limited (standard chartered bank Nepal limited) and Indosuez bank limited (Nepal investment bank limited) came into existence by the end of first half of the end 1980s . Henceforth, a number of joint venture banks came into existence. The basic objective to allow foreign joint venture banks to operate in Nepal was mainly to develop banking sectors, to create healthy environment for future development of already existing old banks and to introduce new technological efficiency in banking sectors.

Listed Commercial Banks of Nepal

1. Bank of Kathmandu Ltd.
2. Development Credit Bank Ltd.
3. Everest Bank Ltd.
4. Himalayan Bank Ltd.
5. Kumari Bank Ltd.
6. Laxmi Bank Ltd.
7. Lumbini Bank Ltd.
8. Machhapurchhre Bank Ltd.
9. Nabil Bank Ltd.
10. Nepal Bangladesh Bank Ltd.

11. Nepal Credit & Commerce Bank Ltd.
12. Nepal Investment Bank Ltd.
13. Nepal Credit & Com. Bank Ltd.
14. NMB Bank Ltd.
15. Nepal S BI Bank Ltd.
16. Siddhartha Bank Ltd.
17. Standard Chartered Bank Ltd.

The commercial banks collect the scattered saving and place them into productive sectors. They hold the deposit if many persons, government establishment and business units. They make funds available through their lending and investing activities to borrowers, individuals, business firms, and government establishments. They are the media through which monetary policy is affected. The joint venture banks help to build the country's holistic development agenda. It is a resource for economic development. It maintains the economic confidence of various segments and extends credit to people.

1.2 profiles of the sample companies

1.2.1 Nabil Bank ltd.

Nabil bank limited, the first foreign joint venture bank of Nepal, started operation in July 1984. Nabil was incorporated with the objective of extending international standard and modern banking service to the various sector of society. Pursuing its objective Nabil provides full range of commercial banking services through its 19 points of representation across the kingdom and over 170 reputed correspondent banks across the globe.

Capital Structure of Nabil Bank Ltd.

Share Capital & Ownership

Particulars	Amount
1 Share Capital	
1.1 Authorised Capital	
a) 16000000 Ordinary Share of Rs 100 each	1,600,000,000.00
b) Non redeemable Preference Share	-
c) Redeemable Preference Share	-
1.2 Issued Capital	
6892160 Ordinary Share of Rs 100 each	689,216,000.00
1.3 Paidup Capital	
6892160 Ordinary Share of Rs 100 each	689,216,000.00

Share Ownership

1 Promotors	482,451,200.00
1.1 Nepal Govt.	-
1.2 Foreign Entity	344,608,000.00
1.3 Other Licensed Institution	42,364,600.00
1.4 Other Entities	71,787,600.00
1.5 Individuals	23,691,000.00
2 General Public	206,764,800.00
Total	689,216,000.00

1.2.2 Himalayan Bank Ltd.

Himalayan Bank Ltd. was established in 1992 by the distinguished business personalities of Nepal in with partnership with employee's provident Habib Bank Ltd one of the

largest banks of Pakistan. It is the first commercial bank of Nepal with maximum shareholding by the Nepalese private sector. Besides commercial activities, the bank also offers industrial and merchant banking.

The bank present has 21 branches including five branches in Kathmandu valley. All branches of Himalayan Bank ltd. integrated into Globus (Development by Temenos), the single banking software, where the bank has made sustainable investments. This has helped the bank provide service like Any Branch Banking Facility, internet banking and SMS banking.

Capital Structure of Himalayan Bank Ltd.

Share Capital & Ownership

Particulars	Amount
1 Share Capital	
1.1 Authorised Capital	
a) 20000000 Ordinary Share of Rs 100 each	2,000,000,000.00
b) Non redeemaable Preference Share	-
c) Redeemable Preferance Share	-
1.2 Issued Capital	
10135125 Ordinary Share of Rs 100 each	1,013,512,500.00
1.3 Paidup Capital	
10135125 Ordinary Share of Rs 100 each	1,013,512,000.00

Share Ownership

1 Promotors	861,485,625.00
1.1 Nepal Govt.	-
1.2 Foreign Entity	202,702,500.00
1.3 Other Licensed Institution	-
1.4 Other Entities	658,783,125.00
1.5 Individuals	
2 General Public	152,028,845.00
Total	1,013,512,500.00

1.3 Statements of problems

Although various joint venture banks are in operation in Nepal after the government of Nepal adopted the open liberal and market oriented economic policy. The financial sectors have not been enough to meet the growing resource need to the economy as expected before. Why is so and what are the problems? To find out the suitable answer an analysis of their present capital structure is necessary. So focus of the present study is on the capital structure of the joint venture banks in Nepal with special references to Nabil Bank Ltd. and Himalayan Bank Ltd.

Efficient capital structure is the major tool to measure the strength and weakness of the banks. Strong joint venture banks contribute to national economy and also attract the further foreign investment in this sector. It may be an example to a newcomer joint venture banks. Therefore the present study seeks to explore the answer of the following questions

- a. How efficiently the sample banks are managing their capital structure?
- b. Which is the optional capital structure position for the samples banks?
- c. What are the main problems of commercial banks of Nepal?

1.4 objective of the study

It is already stated that commercial banks play a great role to develop the economy of a nation. For this it must have the strong financial position, I e capital structure and the way of its financed. The size and type of the capital and assets depends upon the nature, objective and size of the companies.

The main objectives of the study are to analysis and examine and interpret the capital structure of commercial banks with reference of Nabil Bank Ltd. and Himalayan Bank ltd. The major objectives of the study are as follows.

- .) To study existing capital structure of sample commercial banks.
- .) To analyze the relationship between capital structure and its effects to the banks.
- .) To study the debt serving capacity of the sample banks
- .) To provide the suggestions and recommendations on the basis of the findings

1.5 Focus of the study

The proper involvement of the commercial banks is quite essential for the economic development of a nation. Generally banks are established to earn profit by giving satisfaction to the customer. To gain the profit there should so may investment alternatives. But now in the context of Nepal good investment alternatives are not available. For this government should play a vital role to create various kinds of investment alternatives.

1.6 significance of the study

This research is helpful in different areas but no one tried sincerely in this area. Through finding of the previous research are equally important. Various short coming are sorted out which can be turned into the strength of the commercial banks of Nepal. The financial institution, holding lenders, and owners are more concerned with the firm's long-term

financial strength. To judge the long term financial position of the firm's capital structure should be analyzed. Capital structure analysis would help to indicate and to follow the appropriate mix of debt and owners equity in financing the firm's assets. A firm having good return and efficient management is considered to be better and bright in the future. Therefore to this significance on account, this study on behalf of the firm's capital structure is justified as a specific subject matter. In addition this study helps to specify the entire glory of commercial banks in Nepal taking these two banks (Nabil Bank Ltd. and Himalayan Bank Ltd.) on an average. It helps to show the strengths and weakness of these two banks. Similarly it helps to show the financial healthiness to its investors and at the same time to the concerned stakeholders.

1.7 Limitation of the study

- ❖ Only the five years data from 2003/04-2007/08 has been considered in study, which may not be enough for the study.
- ❖ From the total population only limited companies are taken as sample companies for data analysis. Sample cannot represent the whole population
- ❖ The unavailability of ready made computer software to carryout comprehensive test of all methodology tools.
- ❖ This study concentrates only on the capital structure of two banks.
- ❖ In this study only selected financial and statistical tools and technique are used.
- ❖ The other limitation is lack of adequate time and reliable information about the commercial banks and not getting proper help from the respondent while collecting the primary data to complete this project work

1.8 Organization of the study

This study will have the following organization.

Chapter 1 : Introduction Chapter deals with background of the study , profile of the sample companies, statement of the problems, objective of the study, focus of the study, significance of the study and limitation of the study.

Chapter 2: Second chapter is Review of literature which deals with the review or rewind the available literature. It includes review of book, Journal of previous project work.

Chapter 3: Third chapter is Research Methodology which explains the research methodology used in the study. This includes research design, source of data, population and sample, method of data analysis etc.

Chapter 4: Fourth Chapter is Data Collection and presentation, which is important chapter of the study. It includes presentation and analysis of the data.

Chapter 5: Fifth Chapter is Summary, Conclusion and Recommendation, which summaries the main conclusion of the study.

CHAPTER – II

REVIEW OF LITERATURE

2.1 Introduction

In this part of study review of existing literature has been made. To review the previous research, thesis, various articles published in newspaper, journal on this topic are the main subject matter of review of literature. The previous studies can not be ignored because they provide foundation to this study. The relevant articles were reviewed and various published and unpublished data and materials are also available from different sources. Review of literature is an essential part of all studies. It is a way to discover how previous researches are done in the area of our problems.

Review of literature is an essential part of all studies. It is a way to discover what other research has uncovered in the area of this problem. The main objective of this review of literature is to:

- Establish a point of departure for future research.
- Avoid investing problem that has already been definitely answered.
- To reveal area of needed research.
- Every possible efforts has been made in order to incorporate all the knowledge and information available in libraries ,related periodical and magazines ,official and unofficial of the banks concerned ,etc. (Wolf and pant ;1999)

2.2 Conceptual framework

This study deals with capital structure of commercial banks specially Nabil bank Ltd and Himalayan Bank Ltd., here it is almost necessary to mention the conceptual thoughts behind it.

2.3 General Concept of Capital Structure

“The term capital structure is used to represent the proportionate relationship between debt and equity. The mix of debt and equity in a firm is called its capital structure. The capital structure decision is significant financial decision since it affects the shareholder return and risk and consequently, the market value of share.” (Pandey; 1992)

Generally the term “capital structure” is referred to represent the proportionate relationship between the different forms of financing. However, some times a distinction is drawn between ‘financial structure’ and ‘capital structure’. (Weston and Brigham; 1989:249-50)

“The structure is used to refer a manner in which the assets of a firm are financed. Thus, it represents the entire capital and liability side of the balance sheet. On the other hand, the term capital structure is used in the restrictive sense. It refers to the comparison of long term source such as preference capital, debentures, long term debt and equity capital including reserve surpluses (i.e. retained earning and excludes short term debt). Thus used in this sense capital structure is the part of financial structure. From the practical point of view, the distinction is not very rigid. In practice, short term debts in many cases are used as substitutes of long term debt for the financing long term activities. This short term debt also provides leverage benefits to the shareholders and involved cost and risk like the long term debts. Hence the terms financial structure and capital structure is used interchangeably.”[Pandey; 1996]

Capital structure is the analysis of the capital composition of a company. “Capital structure is the permanent financing of the firm, represent by long term debt, preferred stock and common stock but excluding all short term credit. Thus a firm’s capital structure is only a part of its financial structure i.e. common stock, capital surplus and accumulated retained earning.”[Weston and Brigham ;1986)]

“Both debt and equity are used in most of the large corporations. The choice of amount of debt and equity is made after the comparison of certain characteristics of each kind of security, internal factor related to the firm’s operation and external factor they can affect the firm.” (Hampton; 1986)

The choice of debt and equity largely depends on the three factors such as cost, risk and control. The cost of capital is required rate of return for the firm. The riskiness of the firm alters with the change in debt –equity mix and so on earning and maintaining control can be favorable whenever capital structure decisions are made.

“A financial manager must strive to obtain the best financial mix or optimum capital structure for his /her firm. The firm’s capital is optimum when the market value of share is maximized. The use of debt affects the return and the risk of share holders; this will increase the return on equity but also the risk at the same time. When the shareholders return is maximized with minimum risk the market value per share will be maximized and the firm’s capital structure would be optimum.” [Pandey;1992]

“It can be legitimately expected that if the capital structure /financial leverage decision affects the total value of firm, a firm should select such a financing mix as will maximize the shareholders wealth. Such a capital structure is referred to as the optimal capital structure. The optimal capital may be defined as that capital structure or combination of debt and equity that leads to the maximum value of the firm.”[khan and jain 1992:473]

“If a company can change its total valuation by varying its capital structure, an optimal financial mix would exist, in which market price per share could be maximized.”[Van Horne ;1983]

The concern of financial decision is with financial mix or capital structure or leverage. The financial decision of the firm relates to the choice of the portion of these source of finance the investment requirements. there are two part of financial

decision . The first theory of capital structure which shows the theoretical relationship between the employment of debt and equity to ensure a trade off between risk and return to the shareholders is necessary. A capital structure with a reasonable proportion of debt and equity is called capital structure.”[Khan and Gain ;1992]

“Under the assumption that a firm will attempt to maximize the long run market value of ownership shares, there exist an optimal capital structure for each individual firm. It varies from different industry because the typical assets structure and stability of earning which determine inherent risks vary for different type of production.”[Kulkarni;1983]

“Funds can be raised through debt and equity financing. Risk is associated in proportion of its uncertainty in being paid off. The required rate of return expected by investors according to their risk is cost of capital therefore; a firm should try to obtain necessary funds at lower cost. The overall cost of capital fully dependent upon the proportion of debt and equity capital i.e. financial leverage ‘ which is actually the capital structure of funds so ,overall cost of capital, value of firm and earning per share are affected by the mix of the components of capital structure . One of the most important issues of financial manager is to create proper relation between capital structure, which is the mix of debt and equity financing, and stock prices.” [Brighman , Gapenskiand Ehehardth ;2001]

“The capital structure of the firm, defined as the mix of financial instruments used to finance the firm, is simplified to include only long term interest bearing debt, common stock and preferred stock. Capital structure is the combination of long term source of financing i.e. debt, preferred stock and common stock that are used to finance the firm.”[Chandra;1985]

Capital structure theory is based on the following assumptions.[van Horne ;1999:252]

1. There are no corporate or personal taxes and bankruptcy cost.
2. 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 structure is affected immediately. In this regard, we assume no transaction costs.
3. The firm has the policy of paying 100% of its earning in dividends. Thus, we abstract from the dividend decision.
4. The expected value of the subjective probability distribution of expected future operating earning for each company is the same for all investors in the market.
5. 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 bare same as percentage operating earnings.
6. Two types of capital are employed: long term debt and shareholders equity.
7. The firm is expected to continue indefinitely.

In this analysis of capital structure theories, the following basic definitions are used.

S = Total market value of stock

D = Total market value of debt

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

K_e =Equity capitalization rate

K_o =Overall capitalization rate =net operating (NOI)

K_d =Cost of debt capital

INT =Total amount of annual interest

EBIT = Earning before interest and taxes

EBT = Earning before taxes

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

) **Debt**

$$\text{Value of debt (D)} = \frac{\text{Int}}{K_d}$$

$$\text{Cost of debt (K}_d) = \frac{\text{Interest}}{D}$$

) **Equity or common stock**

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

$$\text{OR, } = \frac{\text{EBT}}{S}$$

Overall or weighted average cost of capital

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

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

Thus,

$$K_o = K_d(D/V) + K_e(S/V)$$

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

So

$$V = D + S$$

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

2.4 The optimal capital structure

Capital structure decision affects the value of firm, earning per share and cost of capital. The objectives of the company are always related to the minimizing the overall cost of capital. To achieve this, company should make the appropriate composition of capital structure, which is also known as optimal capital structure.

An optimal capital structure would be obtained at the combination of 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 ;1992]

“The optimal capital structure is one that strikes the optimal balance between risk and return and thereby maximizes the price of the stock.”[Weston and Brigham ;1989]

“Optimal capital structure can be defined as that mix of debt and equity, which will maximize the market value of the company. If such an optimal does exist, it maximize the value of company and hence the wealth of its owners. It minimizes the companies cost of capital which in tern 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 objective of maximizing the shareholders wealth. As a practical manner we can not estimate this structure with precision.”[Weston and B righman;1989]

2.5 Theories of capital structure

Capital structure is the permanent source of financing of the firm represented by long term debt, preferred stock and common stock but, excluding all short term credits. There are various theories relating to the capital structure of the firm. Nevertheless, capital structure decision affects the total market value of the firm, earning per share and firms cost of capital. So, the theories of capital structure are closely related to the firms cost of capital. There are many factors which are related to the cost of capital. That mix of capital which minimizes the cost of capital structure is the optimal capital structure. But, all does not accept the existence of optimal capital structure. Argument between those who believe that there is an optimal capital structure for each firm and among those who believe in the absence of such capital structure begun in the late 1950's and there is yet no resolution of the conflict.

The cost of debt and cost of equity are assumed to be independent to the capital structure under net income approach. But, under net operating the cost of equity is assumed to increase linearly with leverage. Modigliani and miller logically admitted that the value of firm and cost of capital is independent of capital structure decision of the firm. On the other side traditional theory argue that the value of the firm and the cost of capital are affected by the capital structure change. So to understand about the capital structure decision and concept under different theories it is important to have some idea of major capital structure theories. Many theories about the capital structure have been developed in the field of financial management. Among them following theories have been considered:

2.5.1 Net income approach

Under the net income approach, the cost of debt and cost of equity are assumed to be independent to the capital. The weighted average cost of capital declines and total value of firm rise with increased value of leverage. "The essence of net income approach is that

the firm can increase its value or lower the cost of capital by increasing the proportion of debt in the capital structure.” [Pandey; 1992]

“Net income approach supports the traditional theory of capital. This theory assumes that the cost of debt and cost of equity remain constant as change in the firm’s capital structure. A change in the capital structure will lead to the corresponding change in the overall cost of capital as well as total value of the firm. If the firm adds cheaper debt to its capital structure, its cost of capital declines debt is risky than equity. On the other hand, the overall value of firm increases. Thus, if the firm increases its leverage by increasing debt in capital structure, the overall cost of capital will decline which ultimately increases the value of firm. The crucial assumptions of this approach are:”[Van Horne ;1980:380]

The use of debt does not change the risk perception of investors; as a result the equity capitalization rate, (K_e) and the debt capitalization rate (K_d) remain with changes in the leverage.

- ❖ The debt capitalization rate (K_d) is than equity capitalization rate, (K_e).
- ❖ The corporate income taxes do not exist.

Under this approach “as a firm increases its leverage by increasing its level of debt relatively to equity the overall cost of capital declines. The importance of this levered overall cost of capital is that it increases the value of the firm.”[Van Horne :1999]

According to the first assumption, K_e and K_d are constant. Increased the use of debt will result in the higher value of the firm via higher value of equity. Consequently, the overall cost of capital is measured by the following formula:

Overall cost of capital (K_o) = Net Operating Income / Total value of firm

Symbolically, $K_o = EBIT / V$

The overall cost of capital can also be measured by the following equation.

$$K_o = K_e - (K_e - K_d) * D/V$$

As per assumption of NI approach, K_e and K_d are constant and K_d is less than K_e . so K_o will decrease as D/v increase. It also implies that the overall cost of capital, K_o will be equal to K_e if the firm does not employ any debt.

2.5.2 Net operating income approach.

Under the Net operating income approach, the cost of equity is assumed to increase linearly with leverage. As a result the weighted average cost of capital remains constant and the total value of firm also remain constant as leverage is changed or according to the net operating approach, the market value of the firm is not affected by the capital structure changes.

The net operating income approach is dramatically opposite to the net income approach. The essence of this approach is that the leverage or capital structure decision of the firm is irrelevant. Any changes in the total value of the firm and market price of share as the overall cost of capital are independent of the degree of leverage.

“The main assumption of this approach is that K_o is constant, regardless of the degree of the leverage. The market capitalizes the value of the firm as a whole; as a result, the brake down between debt and equity is unimportant. An increase in the use of supported cheaper debt fund is offset exactly by the increase in the required return, K_e . Thus, the weighted average cost of capital remains unchanged for all degree of leverage.”[Pandey; 1992]

The critical assumptions of NOI approach are:[Pradhan ;2004]

- ✓ The market capitalizes the value of the firm as a whole. Thus, the split between debt and equity is not important.

- ✓ The market uses an overall capitalization rate K_o , to capitalize the net operating income. K_o depends upon the business risk. If the business risk is assumed to remain unchanged K_o is constant
- ✓ The use of less costly debt fund increases the risk of the shareholders. This causes the equity capitalization to increase. Thus, the advantage of debt is offset exactly by the increase in the equity capitalization rate, K_e .
- ✓ The debt capitalization rate is a constant.
- ✓ The corporate income taxes do not exist.

Under net operating income (NOI) approach, the Total value of firm is found out by dividing the net operating by overall cost of capital, K_o . The market value of equity, S , can be determined by subtracting the value of the debt, D , from the total market value of the firm, V (i.e. $S = V - D$). The cost of equity K_e will be measured as follows:

$$\begin{aligned} \text{Equity capitalization rate } (K_e) &= \frac{(EBIT - \text{Interest})}{(V - D)} \\ &= \frac{EBT}{S} \end{aligned}$$

2.5.3 Traditional theory

Soloman Ezra has pauperized the traditional theory of capital structure. This is also known as an intermediate approach. “The traditional approach to valuation and leverage assumes that there is an optimal capital structure that the firm can increase the total value of firm through the judicious use of leverage. The approach suggests that the firm initially can lower its cost of capital and raises its value through leverage. “[Van Horne; 1999]

According to this theory, the value of the firm can be increased or the judicious mix of debt and equity capital can reduce the cost of capital. This theory implies that the cost of capital decreases within the reasonable limit of debt and then increases with leverage. Thus, an optimal capital structure exists, and it occurs when the cost of capital minimum or the value of firm is maximized. The cost of capital declines with leverage because the

debt capital is cheaper than the equity capital within reasonable or accepted limit of debt. “The statement that the debt funds are cheaper than the equity capital carries the clear implication that the cost of debt plus the increase cost of equity together on a weighted basis will be less than the cost of equity which existed on equity before the debt financing.”[Barger; 1963]

So, traditional position implies that the cost of capital is not independent of the capital structure and that there is an optimal capital structure.

According to the traditional position, the manner in which the overall cost of capital reacts to changes in the capital structure can be divided into three stages:

First stage: Increasing Value:

In the first stage, the rate at which the shareholders capitalize their net income, i.e. the cost of equity, K_e remains constant or rises slightly with debt. However, when it increases, it does not increase fast enough to offset the low cost debt. During this stage, the cost of debt, K_d , remains constant or rises negligibly, since the market views the use of debt as reasonable policy. As a result, the value of firm increases or the overall cost of capital falls with increasing leverage.

Second Stage: optimal value:

In this stage, once the firm has reached certain degree of leverage, increases in leverage have a negligibly effect on the value or the cost of capital of the firm. This is so because this increases in the cost of equity due to added financial risk offsets the advantage of low cost debt. Within range of specific point, the value of firm will be maximized or the cost of capital will be minimum.

Third Stage: declining value:

Beyond the accepted limit of leverage, the value of firm decreases with leverage or the cost of capital increases with leverage. This happens because investors perceive a high degree of financial risk and demand a high equity capitalization rate, which offsets the advantage of low cost debt.

In this stage, the cost of debt and cost of equity tends to rise because of increasing the degree of financial risk that will make to increases in the overall cost of capital.

The overall effect of these three stages is to suggest that the cost of capital is the function of leverage. It declines with leverage and after reaching a minimum point or range starts rising.

2.5.4 Modigliani and Miller (MM) Model

”Until 1985, capital structure theory considered the loose assertions about investors rather than carefully constructed model, which could test by formal statistical analysis. In what has been called the most influential set of financial paper ever published, Franco Modigliani and Merton Miller (MM) addressed capital structure in a rigorous , scientific fashion , and they set off a chain of research that continues to this day.”[Brigham , Gapenski and Ehrhardth ;2001]

“Modigliani and Miller (MM) in their original position advocate the relationship between leverage and the cost of capital, which is explained by the net operating income approach. They make the formidable attack on the traditional position by offering behavioral justification for having the cost of capital, K_o , remain constant through out all degree of leverage.”[Van Horne ;1999]

“The Modigliani and Miller (MM) theory is identical with the net operating income approach. They argue that in the absence of taxes, a firm’s market value and cost of capital remain invariant to the capital structure changes. In their 1958 article they provide analytically sound and logically consistent behavioral justification in favor of their hypothesis, and reject any other capital structure theory as incorrect.”[Pandey ;1996]

Modigliani and Miller explain theory based on the following important assumptions:
[Van Horne ;1983]

Capital market is perfect. Information is costless and readily available to all investors. There are no transaction costs and all securities are infinitely divisible. Investors are assumed to be rational and to behave accordingly.

-) The average future operating earning of the firm is represented by subjective random variables. It is assumed that the expected value of probability distribution of all investors is same. The MM illustration implies that the expected value of the probability distribution of expected operating earning for all future periods are same as present operating earnings.
-) Firm can be categorized into “equivalent return” classes. All firms within a class have the same degree of business risk. As we see later, this assumption is not necessary for proof.
-) The absence of corporate taxes is assumed. MM removes this assumption later.

The Modigliani and Miller position is based on the idea that no matter how we can divide the capital structure of the firm among debt, equity and other claims, there is the conservation of the investment value. M-M in 1958 proposed that the theory without taxes and they relaxed the theory with tax consideration. So, can study MM theory under two headings:

- M-M theory without taxes
- M-M theory with taxes.

M-M theory without taxes:

M-M first analyzed leverage under the assumption that there are no corporate or personal income taxes. Based on this assumption, they explained and algebraically proved the following propositions.

Proposition -1

This proposition assumes that the market value of the firm is independent of its capital structure. The value of firm is established by capitalizing its net operating income (EBIT) at the constant rate, which is based on the firms risk class. In other words , M-M argue that for the firm in the same risk class , the total market value is independent of the debt – equity mix and is given by the rate appropriate to that risk class. This can be expressed as follows:

$$\begin{aligned} \text{Value of firm} &= \text{market value of debt} + \text{market value of equity} \\ &= \text{expected net operating income} / \text{expected overall capitalization rate} \\ &= \frac{EBIT}{K_o} \end{aligned}$$

For an unleveled firm ,

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

Where $K_e = K_o$ for unleveled firm.

Since, the value of firm is constant, under the M-M model, when there are no taxes; the value of firm is independent of its leverage.

- The weighted average cost of capital of the firm is completely independent of the capital structure.
- The weighted average cost of capital for the firm, regardless of the amount of debt used, is equal to the cost of equity it would have if it uses no debt.

Proposition 2

According to this proposition, the cost of equity, K_e is a linear function of leverage measured by the market value of debt to equity, D/S . Thus, leverage will result not only in more earning per share to shareholders but, also increases the cost of equity. The benefit of leverage is exactly taken off by the increased cost of equity, and constitutently, the firms' market value will remain unaffected.

The cost of equity of the levered firm K_e is equal to the cost of equity of unlevered firm K_{eu} , in the same risk class plus risk premium where size depends on both differential between unlevered firm's cost of debt and cost of equity made amount of debt used.

$$K_{el} = K_{eu} + \text{risk premium}$$

$$= K_{eu} + (K_{eu} - K_d) * d/s$$

Where,

K_{eu} = cost of equity of unlevered firm

K_{el} = cost of equity of levered firm

K_d = cost of debt

D = market value of firm's debt

S = market value of firm's stock

Thus, proposition shows the impact of financial leverage, on the cost of equity. Due to the increase in the leverage, firm gets the benefits of cheaper debt but, the benefit is exactly offset by an increase in the cost of equity in the firm of risk premium expected by the shareholders, against an increase in financial risk.

Taken together, the two M-M proposition implies that the inclusion of more debt on the capital structure will not increase the value of firm. Because of the benefits of cheaper debt will exactly offset by an increases in the risk hence in the cost of equity. Thus, M-M argue that in the world, without taxes both the value of firm and its weighted average cost of capital would be unaffected by its capital structure.

The arbitrage proof

M-M used an arbitrage proof to support their assumptions. They showed that if two companies differ only in the way they are financed and in their total market value, the investor would sell share of the higher value firm, buy those of the lowered firm, and continue this process until the companies had exactly the same market value.

M-M assumed that all firms are in zero growth situations, i.e. EBIT is expected to remain constant and all earnings are paid out as dividends.

M-M argues that the total risk of the firm is not altered by change in capital structure. the total value of the firm is same as levered or unleveled firm. This hypothesis is supported by arbitrage process. Arbitrage is the process of simultaneously buying and selling the same or equivalent securities in different market.

Investors would inter into this arbitrage process if they saw two identical firms selling at different price because of difference in capital structure. The investor could increase return without increasing risk. But , they argue that the value of this two firms have to be the same , otherwise investor can earn profit by selling the share of overed value firm and buying the share of undervalued firm. This arbitrage process will continue until the value of levered firm and unleveled firm are identical.

Based on arbitrage process M-M conclude that the market value of firm or its cost of capital is not affected by leverage. Thus, the capital structure decision is irrelevant. It does not have any impact on the maximization of market price per share. This implies that one capital structure is as much desirable as the other. Each of the assumptions listed on the beginning of M-M theory is necessary for the arbitrage proof of work. For example if the companies do not have identical business risk or the transaction costs are significant, than the arbitrage process cannot be involved.

M-M theory with taxes

M-M's original work published in 1958 assumed zero taxes. In 1963 They published the second article, which incorporated corporate taxes. Under M-M theory without taxes, the value of firm is independent of its capital structure. However, in reality, the corporate income tax exists and interest paid to the debt holders is treated as a deductible expenses. Therefore, debt financing is advantageous. "in their 1963 article , M-M shows the value of firm will increase with debt due to the deductibility of the interest charges for tax

computation , and the value of levered firm will be higher than of the unleveled firm”[pandey;1992].

The M-M propositions when companies are subject to income taxes are as follows.

Proposition 1

The value of livered firm is equal to the value of unleveled firm in the same risk class plus the gain from leverage. The gain from leverage is the value of tax saving, found as the product the corporate tax rate (T) times the amount of debt fund uses (D).

Value of levered firm =value when unleveled + tax shield

$$V_L = V_u + T \cdot D$$

Here the important point is that when corporate tax introduced, the value of levered firm exceed that of the unleveled firm by the amount of tax shield. Since the gain from leverage as debt increases, in theory a firm’s value is maximized at 100%debt financing. With zero debt, the value of firm is equal to the firm’s value of equity. The value of unleveled firm can be found by using following equation.

$$V_u = S = \frac{EBIT(1 - T)}{K_{eu}}$$

Where,

V_L = value of levered firm

V_u = value of unleveled firm

T = corporate tax rate

K_{eu} =cost of equity of unleveled firm

Proposition 2

Under this proposition , the cost equity of levered firm is equal to the cost of equity of an unleveled firm in the same risk class plus a risk premium whose size depends on the differential between the cost of equity and debt to an unleveled firm , the amount of financial leveraged used , and the corporate tax rate.

$$K_{el} = K_{eu} + (K_{eU} - K_{d})(1-T)(D/S)$$

Where, K_{el} = cost of equity of levered firm

The M-M view under tax rate consideration suggests that because of tax deductibility of interest charges, a firm can increase its value or lower its cost of capital continuously with leverage. Thus, an optimal capital structure is reached when the firm employs 100% debt in its capital structure. However, the observed expenditure does not entirely support this view. In practice do not employ large amount of debt, nor are lenders ready to lend beyond certain limits. M-m suggests that a firm would adopt a target debt ratio so as not to violate the limit of debt level imposed by lenders.

Why do companies not employ extreme level of debt in practice? There could be two possibilities. First we need to consider the impact of both corporate and personal tax for corporate borrowing. Personal tax may offset the advantage of the interest tax shield. Second borrowing may involve extra costs -cost of financial distress which may also offset the advantage of interest shield. [Pandey;1992].

2.5.5 The Miller Model

M-M introduced the theory first by assuming the absence of corporate and personal tax in 1955. Later on 1963 they developed their theory by considering the corporate taxes. Although, MM introduced corporate tax in the second revision approach, they did not extend the approach to include personal taxes. "However, in his presidential address to the American Finance Association, Merton Miller introduced an approach designed to show how leverage affects firm's value when both personal and corporate taxes are taken into account." [Brigham, Gapeski and Ehrhardt; 2001:632].

Due to the Miller agreement, changes in the capital structure have no effect on the firm total valuation. This position is sane as M-M's original proposition in the world of no taxes, but it contrasts sharply with their corporate adjustment article, in which they found that debt has substantial advantage.

“Miller model suggest that in the market equilibrium, personal and corporate tax effects cancel out. He assumes that the personal tax on stock income, t_{ps} is zero. Accordingly, his model implies that at the margin, the personal tax rate on the debt income, t_{pd} must equal to the corporate tax rate t_c . when $t_{pd} = t_c$, changes in proposition of debt in the capital structure do not change in the total after tax income to investors. As a result capital structure decision by the corporation would be irrelevant.”[Van Horne; 1999:].

With personal taxes included and under the same set of assumptions used in the M-M model, the value of an unleveled firm is found a follows:

$$V_u = [EBIT (1-t_c)(1-t_{ps})] / k_{eu}$$

Where,

EBIT = EARNING BEFORE INTEREST AND TAXES

T_c = corporate tax rate

T_{ps} = personal tax rate on income from stock

K_{eu} = equity capitalization rate of unleveled firm

The value of levered firm under miller model can be found as follows:

$$V_l = V_u + \text{tax shield}$$

$$\text{Or } V_l = V_u + D \{1 - (1 - T_c)(1 - T_{pd})\} / (1 - T_{pd})$$

Where,

T_{pd} = personal tax rate on income from debt.

The miller model has two important implications: [Pandey; 1992:702]

- I. There is an optimal amount of debt in the economy, which is determined by the corporate and personal tax rates. In other words, there is an optimal debt equity ratio for all firms in the economy.
- II. There is no optimal debt – equity ratio for a single firm. There are hundreds of firms, which have already included ‘tax exempt ‘and’ low tax bracket’ investors. Therefore, a single firm can not loss, gain by borrowing more, or less.

So, Miller model corporate and personal income taxes assume that the advantages of corporate borrowing are reduced by the personal tax loss. Capital structure does not matter from the single firm's point of view. Miller's model are based on the controversial assumptions and therefore most people still believe that in balance, there is a tax advantage of borrowing. James, C. van Horne expressed the reaction of this model as: [van Horne; 1983:266]

The personal tax effect does not entirely offset the corporate tax and that there is a tax advantage to borrow for the typical corporation. This particularly true for companies having only moderate amount of debt where tax shield uncertainty is not great. Still there would appear to be some lessening of the corporate tax effect owing to personal taxes.

2.6.1 Review of journals and articles

Under this heading, efforts have been made to examine and review of some related articles published in different economic journals, magazines, newspapers.

Paul Marsh (1982) in his article "The choice between equity and debt."

Expressed the following issues:

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

Then he suggested that:

-) While planning their issues, company should future as well as current debt ratio.
-) If the company is looking at the book value debt ratio, there will be change during the interest\issuing period of retentions and bank loans.
-) Any overall change in tax level could cause issuing companies to shift their performance towards either debt or equity.

- J Small companies rely on the bank loan rather than the long term debt because of location, cost and problems of access to capital market.
- J Equity issues seem to be favorable as it provides strong share price and overall market performance.[marsh;1982:121-144]

Manahor Krishna Shrestha (1958) in his journal “Analysis of capital structure in selected PE’s”, he have concluded that the selected PE’s under study have very confusing capital structure. Since the corporation are not guided by objectives bases financial plans and policies. He has suggested that the debt equity ratio neither should be highly leveraged to crate too much financial obligation that lies beyond capacity to meet nor should to be much low leveraged to infuse operation lethargy to by pass responsibilities without performance. [Shrestha; 1985:15-16]

R .L Shrestha (1990) in his article “capital adequacy of banks; the Nepalese context “has thrown precaution over to the capital base that it should neither be too much leading to inefficient allocatio0n of scare resources nor so weak as to expose to extreme risk while dealing highly risky transactions to maintain strong capital base. He accepts the fact that the operation of the bank and the degree of risk associated with them are subject to change country wise, bank wise and time wise. Therefore, the study entirely suggests to present standard capital adequacy for each individual bank keeping in mind

R.Devi Shrestha (1993) in her journal “focus on capital structure “ has conducted the study on selected 19 public companies covering different sectors such as manufacturing ,finance, utility service and other sectors. It was found that most of companies have debt capital relatively higher than the equity capital. Consequently, most of them are operating at loss to the extent that payment of interest on loan has been serious issues. Most of them losses are after charging interest on loan. It has suggested that the government has o consider public enterprises in evaluating the relationship between debt and impact on overall earning of public enterprises. So government should be sue in knowing how debt capital will return maximize return. It should develop a suitable capital structure guideline to make public enterprises aware of its responsibility to pay the debt schedule. Government has to analyze cost and risk return trade off. Thus, capital structure needs to

be made more determine by realistic analysis of cost. Lastly, she concluded that policy makers have to be careful in developing the suitable capital structure guidelines in making public enterprises as well as listed companies to be aware of financial accountability. [Shrestha; 1993:40]

Sudhir Poudyal (2002) in his article, “Capital structure: its impact on value of firm” concentrated his study to examines the interrelationship between the objective of achieving an optimal capital structure and to provide conceptual framework for the determination of the optimal capital structure.

For this, a hypothetical firm is constructed and different assumptions are laid down to analyze the effect of capital. Various statistical and financial tools like ratio analysis are used to extract reasonable firm for the hypothetical firm. It is observed the minimum value of firm and price per share are attended at debt ratio of 30%.Furthermore, if there is flexibility to select capital structure in any proportion, optimal capital structure range from 30%to 40%. An optimal capital structure would fulfill the interest of equity shareholders and financing requirement of a company as well as other concerned groups. [Poudyal; 2002:22]

2.6.2 Review of thesis

Kamal Bahadur Rajlawat (1999) In his unpublished masters degree thesis “the capital structure of Necon air limited” has stated that the main study of study is to analyze and examine the capital structure of Necon air limited, examine the financial position, highlight their growth and policies and review various previous studies relating to the study.

The methodology used in the study includes financial tools such as ratio analysis and statically tools such as correlation coefficient and probable error. The study used secondary data for the analysis.

The study has found that Necon air limited has debt equity ratio higher than required. The higher debt capital is a serious implication from the firm's point of view. In this condition the capital will lead to inflexibility in the operation of the firm as creditors would exercise pressure and interfere with management. Necon air has raised debt from different commercial banks and has to pay heavy portion of profit as interest. Therefore, the payment of interest will be hazardous when profit is declining. Therefore, it is suggested that Necon air should decrease its debt capital drastically as far as possible. It has added that the ratio of 2:1 is the best ratio for optimal capital structure. That is why the company should reduce its heavy burden of interest payment. Rajlawat; 1999]

Shanti Raj Prashai (1999) in his unpublished master's degree thesis "The capital structure of Nepalese's bank Ltd." Has stated that the basic objective of the study made by shanty Raj Prasai was to analyze the interrelationship and trends among the components parts of capital and assets structure and to provide suggestion for the development of an appropriate capital structure.

The study has used financial tools such as ratio analysis and statistical tools such simple and multiple regression models and earning valuation model. The study has found that the manufacturing companies which have higher leverage are enjoying the lowest overall cost of capital. The value of Nepalese manufacturing companies decrease with the use of debt in the capital structure of the company. Since the beta coefficient of leverage, earning variability and liquidity ratio are negative while beta coefficient of sine' growth and dividend payout ratio are positive and all are significant except for growth at 5% level of significance.

Priya Bajracharya (2006) in her unpublished masters degree thesis "A study on the capital structure of commercial banks" has stated the main objective of the study is to evaluate and analyze capital structure ratios of the commercial bank under study and, analyze the relationship of capital structure with variables such as earning per share, dividend per share and net worth and also to analyze the effects of capital structure on the value of companies.

The methodology used in the study includes both financial as well as statistical tools. The financial tools used were ratio analysis and statistical tools used were mean, standard deviation, correlation coefficient and probable error.

The study has found that average debt equity ratio of bank of Kathmandu shows that claim of owners is higher than the creditors where as Himalayan bank limited has lower claims. Similarly, Nepal investment bank has a fluctuating trend. All the sample banks have negligible long term debt in comparison to their assets. All the sample banks have fluctuating trend of long-term debt to the total debt ratio. Bank of Kathmandu is able to pay interest amount with interest coverage ratio of 1.38 where as Himalayan bank has increasing trend. Similarly, Nepal investment bank too has fluctuating trend of interest coverage ratio with highest interest coverage ratio among the three sample banks. Nepal investment bank seems to have highest return of 1.32 as compared to 1.02 of bank of Kathmandu and 1.116 of Himalayan bank limited. Correlation coefficient and probable error ratio between long-term debt and earning per share of all entire samples bank are negative. Similarly, all the sample banks probable error relationship between long term debt earning per share is not significant.

Madhav Prasad Gautam (2006) in his unpublished masters degree thesis “a study on capital structure management of joint venture commercial bank “ has studied with a purpose to analyze the impact of the capital structure on the profitability, to assess the debt serving capacity of the JVB’s examine the correlation and the significance of their

Relationship between different ratios related to capital structure and to provide suggestions and recommendations for the optimal capital structure of the JVB’s.

The study has used both the financial and statistical tools. The financial tools used were ratio analysis and correlation coefficient and probable error were used under statistical tools.

The study has found that JVB’s have lack of theoretical and practical knowledge with regard to capital structure theories. Nepalese investors are not attracted by the theories.

JVB's in Nepal have concentrated their business with business and industrialist. Their client are mostly big manufacturer of carpet and garment export , multinational companies, large scale industries, NGO's as wellas INGO's , travel agencies, cargo agencies, etc. the saving from rural comities is neglected by JVB's. JVB's are granting significant role in the modern banking. JVB's are basically not concentrated to mobilize their deposit funds in productive sectors. Nepalese share holders are very much concentrated about the cash payment of cash dividend by JVB's rather than their financial statement.

Kiran Adhikari (2006) in his unpublished masters degree thesis 'capital structure \$value of listed manufacturing companies in Nepal' has stated the main objectives of this study are to examine the existing capital structure position of the listed manufacturing companies in Nepal \$ to analyze the effect of capital structure on their value. The specific objectives is to examine the relationship between the capital structure and the value of selected manufacturing companies in Nepal, to examine whether or not the value of company increases by the use of debt in its capital structure, and to examine the relationship among the capital structure variables with each other and to the overall value of manufacturing companies.

The study has bused financial tools such as ratio analysis and statistical tools such simple and multiple regression models and earning valuation model. The study has found that the manufacturing companies which have higher leverage are enjoying the lowest overall cost of capital. The value of Nepalese manufacturing companies decrease with the use of debt in the capital structure of the company. Since the beta coefficient of leverage, earning variability and liquidity ratio are negative while beta coefficient of sine' growth and dividend payout ratio are positive and all are significant except for growth at 5% level of significance. The multiple regression results show that value of company increases with the increases in the size of the capital employed in the company and dividend payout ratio.

CHAPTER-III

RESEARCH METHODOLOGY

3.1 Introduction

This chapter deals mainly with the research methodology, which are used in the period of research.

Research means to search the problem again and again to find out something more about the particular problem. Similarly, methodology refers the various steps that are generally adopted by a researcher in studying his research problem along with the logic behind it. Thus, research methodology is a way to systematically so that we can solve the research problems.

In this regard this chapter explains not only talk of the research methods but also consider the logic behinds the methods, which are use in the context of our research study. This chapter deals to the research methodology adopted and implied for the resources used in achieving the predetermined objectives as stated in the earlier chapter. Thus this chapter contains –Research design, Source of data, and information, Data collection techniques, and finally statistical tools used.

A brief introduction of this study has been already presented in the first chapter. Besides, the review of ideas, theories and research finding has also been presented in the second chapter. Now it is important to have choice of research methodology that helps to make this analysis meaningful.

This chapter highlights the method of research adopted by this study. Research design, nature and source of data, population and sample, data collection procedure and tolls used for analysis are included in this chapter. The analytical as well as descriptive research

design has been included in the present study. In this study research methodology has been paid due attention to achieve the objective of the study.

3.2 Research Design

“A research design is the arrangement of condition for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economic procedure”

Research design refers to the plan or strategy conceived by the researchers that will answer the research questions. In other words research design is the conceptual framework created by the researcher with in which the research to be conducted and will obtain the answer to the research questions.

The main objective of research work is to do the comparative study of capital structure of Nabil Bank Ltd. and Himalayan Bank Ltd. To complete this study various design and format has been adopted.

First of all information and data are collected. The important information and data are selected. Then data are arranged in the useful manner. After that, data are analyzed by using various financial and statistical tools. In analysis part, interpretation and comments are made wherever necessary.

To achieve the objective of study, descriptive and analytical research design has been used. This study is the comparative study of leading commercial banks of Nepal: Nabil Bank Ltd. and Himalayan Bank Ltd.

It includes nature of data, specification of the method of the proposed study and detail plan for carrying out the study with various empirical data for the analysis of problems etc. first the data are presented in table or diagram secondly presently data are analysis by using various financial and statistical tools and at last analyzed data are compared and interpreted for the conclusion.

3.3 Nature and Source of Data

With the view of fulfill the predetermined objectives that are set up for the study both primary as well as secondary sources are Included. The required data have been collected mainly from the secondary sources. Primary sources of the data are mainly based on interviews and queered and secondary data are mainly based on booklets. The monthly NEPSE index is derived from various annual reports and trading reports published by Nepal Stock Exchange & reports of related Banks. Other primary data are collected from Securities Exchange Board Nepal. Besides this, some well known information are collected from magazines and journals. The library of various books and writers as well as from the office copies of the publication maintained by the exchange have also been consulted for the collection of additional information in completing this study more steadily. The web site of Nepal Stock Exchange as well as some others websites were also used for references.

The study however is based on primary as well as secondary data. For the characteristic study annual report of the concerned banks, supporting data and information are obtained from the office of concerned banks and other institutions. Booklets, documents, other published and unpublished materials, newspaper are the important source of data. Primary data are also used to get the bottom of the subject matter. Few questioners to bankers as well as other investors are given to obtain the primary data.

3.4 Population and Sample

There are seventeen commercial banks operating in Nepal. To attain the objective Nabil Bank Ltd. and Himalayan Bank ltd are sleeted as sample banks among the commercial banks.

3.5 Data Collection Procedure

This study is based on the secondary as well as primary data. The secondary data are collected from the Balance sheet , Profit and loss a/c concerned banks, Nepal stock exchange, security board of Nepal , annual report of various banks etc, questionnaires

prepared for the purpose are distributed to the selected managerial manpower and stock market related Person and they are collected and taken for the observation and analysis.

In order to collect the necessary information and data for the present analysis, a systematic process has been employed as follows.

1. First of all need of the study has been identified.
2. Personal approach has been made to collect the required data and information.
3. In order to collect some data and information, most pertinent organization and official authorities has been identified.
4. On the basis of need identification, nature of data has been identified.
5. On the basis of such information and data, analysis has been done.

3.6 Tools and Technique used for Analysis

This study is confined to the comparative analysis of capital structure of Nabil Bank Ltd. and Himalayan Bank Ltd. to reach in the objectives; the collected data are computed and analyzed using various financial and statistical tools.

3.7 Capital structure analysis

The analysis of capital structure is performed by using capital structure ratio. The ratio indicates the proportion of debt and equity in financing the firms' assets. It is concerned with the long-term solvency of the firm. Capital structure ratios are calculated to measure the financial risk and firm's ability of using the debt for the benefit of shareholders. The capital structure of Nabil Bank Ltd and Himalayan Bank Ltd Is evaluated through the following different ratios.

1. Fixed Deposit to Net Worth
2. Fixed Deposited to Capital Employed
3. Fixed Deposited to Total Assets
4. Fixed Deposited to Total Debt
5. Total Debt to Net Worth

6. Total Debt to Total Assets
7. Capital Adequacy Ratio
8. Debt Capacity Ratio
9. Capital structure and Capitalization rate

3.8 Statistical Tools

Statistical methods are mathematical technique used to facilitate the analysis and interpretation of numerical data secured from groups of individual or groups of observation from a single individual. The figures provide details description and tabular as well as analyze data without subjectivity but only objectively.

Data have been simply presented in tabular form and interrelated in percentage and simple average, simple bar diagram, and graphic presentation have also been depicted in the text. On the basis of historical data, using both financial and statistical tools performs details analysis of different variables.

Besides the financial tools, statistical tools are used to verify the relationship between the variables and to identify the difference between the variables of one bank to the other. Statistical tools ie percentage, mean, standard deviation, coefficient variation; correlation coefficient and test of hypothesis are used in this study.

1. Coefficient of Variation (C.V.)

“The coefficient of variation is the measure of dispersion, comparable across distribution which is defined as the rate of the standard deviation to the mean expressed in percent” [Levin & Rubin: 1989:210]. In this study, C.V. is calculated in order to know and compare the variability of observed data between the banks i.e. Nabil Bank ltd and Himalayan Bank ltd.

$$C.V. = \frac{u}{x} \times 100$$

2. Correlation Analysis

The correlation analysis refers to the technique used in measuring the closeness of the relationship between the variables. This attempts to determine the degree of relationship between the variables. Among the various methods, Karl Persons Method is applied in the study. The result of correlation coefficient lies between +1 and -1. i.e. correlation can either be positive or negative. If the correlation between the variables is positive, this indicates that both the variables are moving in the same direction. Correlation coefficient is calculated as follows.

$$R = \frac{xy}{\sqrt{(x^2)(y^2)}}$$

3. Coefficient of Determination (r^2)

The coefficient of determination is a measure of degree of liner association or correlation between two variables. It helps to indicate the percentage variation in independent variables due to the variation in dependent variables.

CHAPTER– IV

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

The presentation of data is the basic organization and classification of the data for the analysis. After data collection is completed the data will be in raw form. The data will still be in data collection forms, note card and rough estimation. Therefore it is necessary to arrange the data so that it makes more sense to the researcher and so that it can be later be presented to the reader of the thesis. There are number of methods which can be used to simplify the data which are discussed in previous chapters. The easiest way to understand the data is by examining it in tables, charts and tables. Then after the presented data is analyzed so that it change from unprocessed form to an understandable presentation. The analysis of data consists of organizing, tabulating, performing statistical analysis and drawing inferences.

This chapter deals with the analysis of data collected and their presentation. NEPSE has categorized its listed company under eight different heading and samples were taken according to the sectors.

4.2 Capital Structure Analysis

Capital structure of the bank is analysis incorporating the position of fixed deposit and Shareholders Equity, financial various ratios analysis and capitalization rate analysis.

4.2.1 Position of Fixed Deposits and Shareholders Equity

Fixed deposit of the bank is concerned as long term debt collected from the customer, which a bank generally accepts for maximum period of two years. Fixed deposit is only

the long term source of debt capital for these two banks ie Nabil Bank Ltd. and Himalayan Bank Ltd. The following table shows the position of fixed deposit of the banks over the last fiscal year 2002/03 – 2007/08.

Table 4.1

Fixed Deposit Position of Himalayan Bank Ltd. and Nabil Bank Ltd.

(Rs. In Million)

HBL				NABIL		
F/Y	Fixed Deposit	Index	% Change	Fixed Deposit	Index	% Change
2002/03	3205.37	100		2252.54	100	
2003/04	4710.18	146.95	46.95	2310.57	102.58	2.58
2004/05	6107.43	176.61	29.66	2078.54	92.53	-10.04
2005/06	6350.2	180.59	3.97	3449.09	158.47	65.94
2006/07	8201.13	209.73	29.15	5435.99	216.08	57.61
2007/08	6423.87	188.06	-21.67	8464.09	271.78	55.70
Total	34998.18		88.06	23990.82		171.78
Average	5833.03			3998.47		
S.D.	1111.74			2376.36		
C.V	19.06			59.43		
Annual growth rate			17.61			34.36

As shown in table 4.1 amount of fixed deposit of both banks showed a fluctuating trend from the last six fiscal year. The Fixed deposit amount of HBL was Rs 3205.37 million in the fiscal year 2002/03. After that also that showed a fluting trend and reached to the Rs 6423.87 at the end of the fiscal year 2007/08. Similarly annual rate of percentage change showed a fluctuating trend. The rate of percentage change in the fiscal year 2002/03 was 46.95% and -21.67% in the fiscal year 2007/08 which is a negative rate of % change.

Similarly the amount of fixed deposit of Nabil bank also showed a fluctuating trend during this last fiscal year 2002/03 -2007/08. The amount of fixed deposit in the fiscal year 2002/03 was Rs 2252.54 Million and reached Rs 8464.09 million at the end of the fiscal year 207/08. In the case of annual rate of percentage change of Nabil bank also showed a fluctuating trend during this fiscal year. In the fiscal year 2003/04 the rate of annual percentage change is -10.04% which is only the negative annual rate of % change of Nabil Bank ltd. in average the annual rate of % change of Himalyan Bank is 17.61% and 34.36% of Nabil Bank ltd.

Table 4.2

Shareholders Equity position of HBL & Nabil .(Rs in Million)

F/Y	HBL			NABIL		
	Net worth	Index	% Change	Net worth	Index	% Change
2002/03	1905.88	100		1314.19	100	
2003/04	2291.93	120.26	20.26	1481.68	112.74	12.74
2004/05	2568.4	132.32	12.06	1657.6	124.62	11.87
2005/06	2885.59	144.67	12.35	1875.0	137.73	13.12
2006/07	2942.23	146.63	1.96	2057.0	147.44	9.71
2007/08	3195.42	155.24	8.61	2437.2	165.92	18.48
Total	15789.45		55.24	10822.67		65.92
Average	2631.575			1803.8		
S.D.	331.99			330.94		
C.V	11.93			18.35		
Annual growth rate			11.05			13.18

As shown in table 4.2 the share holder's position of both bank showed a fluctuating trend but not negative trend. Total net worth of Himalayan Bank Ltd during the fiscal year 2002/03- 2007/08 is Rs 15789.45 Million and the annual rate of percentage in the fiscal year 2003/04 was 20.26%, by the end of the fiscal year 2007/08 it reached to 8.61% showing a decreasing trend.

In the case of Nabil bank the total net worth during the fiscal year 2002/03 – 2007/08 is Rs 10822.67 Million. The annual rate of % change in the fiscal year 2002/03 was 12.74% and by the end of the fiscal year 2007/08 It reached 18.48%.

4.2.2 Fixed Deposit and Net Worth of HBL&Nabil Bank Ltd

Table 4.3

Fixed Deposit and Net Worth

(Rs. In Million)

	HBL		NABIL	
F/Y	Fixed Deposit	Net worth	Fixed Deposit	Net worth
2002/03	3205.37	1905.88	2252.54	1314.19
2003/04	4710.18	2291.93	2310.57	1481.68
2004/05	6107.43	2568.4	2078.54	1657.6
2005/06	6350.2	2885.59	3449.09	1875.0
2006/07	8201.13	2942.23	5435.99	2057.0
2007/08	6423.87	3195.42	8464.09	2437.2

As shown in table 4.3 fixed deposit of HBL is higher than Nabil Bank Ltd. the highest amount of fixed deposit of HBL is in the fiscal year 2007/08 which is Rs 6423.87 Million. And the highest amount of fixed deposit of Nabil bank is in the fiscal year 2007/08 which is Rs 2437.20 Million.

4.2.3 Fixed Deposit to Net worth ratio of Nabil Bank and Himalayan Bank ltd.

This ratio measures the capital formation of a company and tests the solvency position for the payments of long- term liability. This ratio measures the proportion of fixed deposits in relation to net worth. The following formula can be used to calculate this ratio

Fixed deposits to Net worth Ratio =Fixed deposits/ Net Worth

The ratio of sample banks is presented in the following table.

Table 4.4

Fixed deposit toNet Worth Ratio of HBL & Nabil Bank Ltd.

	HBL				NABIL			
F/Y	Fixed Deposit	Net worth	Ratio	% change	Fixed Deposit	Net worth	Ratio	% change
2002/03	3205.37	1905.88	168.18		2252.54	1314.19	171.40	
2003/04	4710.18	2291.93	205.51	37.33	2310.57	1481.68	155.94	-1546%
2004/05	6107.43	2568.4	237.79	32.28	2078.54	1657.6	125.39	-3055%
2005/06	6350.2	2885.59	220.07	-17.73	3449.09	1875.0	183.95	5856%
2006/07	8201.13	2942.23	278.74	58.67	5435.99	2057.0	264.27	8032%
2007/08	6423.87	3195.42	201.03	-77.70	8464.09	2437.2	347.29	8302%
Total			1311.32				1248.25	
Average			218.55				208.04	
S.D.			98.16				80.51	
C.V			12.88				39	

As shown in table 4.4 fixed deposit to net worth ratio of both banks showed a fluctuating trend. The highest % change of HBL is in the fiscal year 2007/08 which is -77.70% and the lowest % change is in the fiscal year 2005/06 which is -17.73%. Similarly highest % change of Nabil bank is 8032% in the fiscal year 2007/08. And the lowest % change is in the fiscal year 2003/04 which is -15.46%.

4.2.4 Fixed Deposit to Capital Employed Ratio

This ratio measures the proportion of fixed deposits out of total capital employed in the firm. Higher ratio represents the higher risk to creditors and also to shareholders under existing business situation while lower ratio assures security to creditors. In other words higher ratio is unfavorable when the rate of interest is higher than the return and vice – versa. However an appropriate mix of fixed deposits and bet worth should be maintained.

Here capital employed represents the total of net worth and fixed deposits. This ratio is computed for measuring the relative share of debt in total captain of the firm indicating log term solvency. This ratio of both the sampled banks is calculated and tabulated as follows.

Fixed Deposits to Capital Employed Ratio = Fixed Deposit / Capital Employed

Where, Capital Employed = Fixed Deposit + Net Worth.

Table 4.5

Fixed Deposit to Capital Employed of HBL & Nabil Bank

F/Y	HBL			NABIL		
	Fixed Deposit	Net worth	Capital Employed	Fixed Deposit	Net worth	Capital Employed
2002/03	3205.37	1905.88	5111.25	2252.54	1314.19	3566.73
2003/04	4710.18	2291.93	7002.11	2310.57	1481.68	3792.25
2004/05	6107.43	2568.4	8675.83	2078.54	1657.6	3736.14
2005/06	6350.2	2885.59	9235.79	3449.09	1875.0	5324.09
2006/07	8201.13	2942.23	11143.36	5435.99	2057.0	7492.99
2007/08	6423.87	3195.42	9619.29	8464.09	2437.2	10901.29

Table 4.6**Fixed Deposit to Capital Employed Ratio of HBL & Nabil Bank Ltd.**

F/Y	HBL				NABIL			
	Fixed Deposit	Capital Employed	Ratio	% Change	Fixed Deposit	Capital Employed	Ratio	% Change
2002/03	3205.37	5111.25	62.71		2252.54	3566.73	63.15	
2003/04	4710.18	7002.11	67.27	4.56	2310.57	3792.25	60.93	-223%
2004/05	6107.43	8675.83	70.40	3.13	2078.54	3736.14	55.63	-530%
2005/06	6350.2	9235.79	68.76	-1.64	3449.09	5324.09	64.78	915%
2006/07	8201.13	11143.36	73.60	4.84	5435.99	7492.99	72.55	776%
2007/08	6423.87	9619.29	66.78	-6.82	8464.09	10901.29	77.64	510%
Total			409.51				394.69	
Average			68.25				65.78	
S.D.			2.47				7.91	
C V			3.6				12	

As shown in table 4.6 the capital employed ratio of HBL showed a fluctuating trend. The percentage change in the fiscal year 203/04 is 4.26 % then in the fiscal year 2005/06 it is negative ie -1.64% later by the end of the fiscal year 2007/08 it is -6.82%. Similarly in the case of Nabil bank Ltd. the percentage change of capital employed ratio in the fiscal year 2003/04 is -2.23% and by the end of the fiscal year 2007/08 it is 5.10%.

4.2.5 Fixed Deposit to Total Assets Ratio

This ratio measures the proportion of fixed deposits finance in assets of the firm. If the firm used more long term debt, it is said to be a firm having following conservative financing policy and has less risk as well as les return. But if the firm used less fixed deposits and more short term debt , it is said to be following aggressive financing , which makes firms more risky., here fixed deposits represents the long term debt and total assets refers to the total assets on the side of the balance sheet. Fixed Deposits to total assets ratio of HBL & Nabil bank are shown below.

Fixed Deposit to Total Assets Ratio = Fixed Deposit / Total Assets

Table 4.7**Fixed Deposit and Total Debt of HBL & Nabil Bank Ltd.**

(Rs. In Million)

F/Y	HBL		NABIL	
	Fixed Deposit	Total Debt	Fixed Deposit	Total Debt
2002/03	3205.37	22292.1	2252.54	15248.44
2003/04	4710.18	23437.86	2310.57	15263.8
2004/05	6107.43	26302.95	2078.54	16528.02
2005/06	6350.2	27694.21	3449.09	20454.98
2006/07	8201.13	31372.64	5435.99	25196.34
2007/08	6423.87	33662.54	8464.09	34695.61

Table 4.8**Fixed Deposit To Total Debt Ratio**

F/Y	HBL			% Change	NABIL			% Change
	Fixed Deposit	Total Debt	Ratio		Fixed Deposit	Total Debt	Ratio	
2002/03	3205.37	22292.1	14.38		2252.54	15248.44	14.77	
2003/04	4710.18	23437.86	20.10	5.72	2310.57	15263.8	15.14	37%
2004/05	6107.43	26302.95	23.22	3.12	2078.54	16528.02	12.58	-256%
2005/06	6350.2	27694.21	22.93	-0.29	3449.09	20454.98	16.86	429%
2006/07	8201.13	31372.64	26.14	3.21	5435.99	25196.34	21.57	471%
2007/08	6423.87	33662.54	19.08	-7.06	8464.09	34695.61	24.40	282%
Total			125.85				105.32	
Average			20.97				17.55	
S.D.			2.5				4.3	
C V			11.9				24.5	

As shown in table 4.8 highest Fixed Deposit to Total debt ratio of HBL is F/Y 2006/07 which is 26.14% and the in the fiscal year 2002/03 it is 14.38% which is the lowest ratio during the 6 fiscal year 2002/03- 2007/08. Similarly percentage change of the fixed deposit to total debt ratio also showed a fluctuating trend during this fiscal year. In the

case of Nabil Bank Ltd. the highest Fixed Deposit to Total Debt ratio is in fiscal year 2007/08 which is 24.40% and the lowest ratio is 12.58% in the fiscal year 2004/05.

4.2.6 Fixed Deposits to Total Debt Ratio

This ratio measure the proportion of fixed deposits out of total debt employed in the firm. Here total debts refer total depositors, bills payable, borrowing made from other banks and other liabilities. Higher the ratio of fixed deposits to total debt indicates the higher claim of fixed depositors upon the total debt of the firm and lower the ratio indicates the higher portion of short term loans and current liabilities in the total debt of the firm. Fixed deposits to total debt ratio of HBL & Nabil can be calculated as follows.

Fixed Deposits to Total Debt Ratio = Fixed deposits / Total Debt

Table 4.9

Fixed Deposit and Total Debt of HBL & Nabil Bank Ltd.

Fixed Deposit and Total Debt of NABIL & HBL

(Rs. In Million)

F/Y	HBL		NABIL	
	Fixed Deposit	Total Debt	Fixed Deposit	Total Debt
2002/03	3205.37	22292.1	2252.54	15248.44
2003/04	4710.18	23437.86	2310.57	15263.8
2004/05	6107.43	26302.95	2078.54	16528.02
2005/06	6350.2	27694.21	3449.09	20454.98
2006/07	8201.13	31372.64	5435.99	25196.34
2007/08	6423.87	33662.54	8464.09	34695.61

Table 4.10

Fixed Deposit to Total Debt ratio of HBL & Nabil Bank ltd.

F/Y	Fixed Deposit	Total Debt	Ratio	% Change	Fixed Deposit	Total Debt	Ratio	% Change
2002/03	3205.37	22292.1	14.38		2252.54	15248.44	14.77	
2003/04	4710.18	23437.86	20.10	5.72	2310.57	15263.8	15.14	37%
2004/05	6107.43	26302.95	23.22	3.12	2078.54	16528.02	12.58	-256%
2005/06	6350.2	27694.21	22.93	-0.29	3449.09	20454.98	16.86	429%
2006/07	8201.13	31372.64	26.14	3.21	5435.99	25196.34	21.57	471%
2007/08	6423.87	33662.54	19.08	-7.06	8464.09	34695.61	24.40	282%
Total			125.85				105.32	
Average			20.97				17.55	
S.D.			2.5				4.3	
C V			11.9				24.5	

As shown in table 4.10 percentage change of Fixed Deposit to Total Debt of HBL showed a fluctuating trend. In the fiscal year 2003/04 the ratio was 5.72 and the by the end of the fiscal year 2007/08 it reached 19.08%. Similarly the percentage change in the fiscal year 2005/06 and 2007/08 is negative.

In the case of Nabil Bank ltd. the highest ratio is in the fiscal year 2007/08 which is 24.40% and the lowest percentage is in the fiscal year 2004/05 which is 12.58%.the percentage change of the ratio of Nabil Bank ltd also showed some fluctuating trend. The percentage change in the fiscal year 2004/05 is -256% which is only the negative change and by the end of the fiscal year 2007/08 it is 282%.

Similarly C V of HBL is 11.90 and Nabil is 24.50. CV represents the risk per unit of the return so lower CV is preferable. According to the CV HBL seems to be more consistent with the ratio of Nabil Bank ltd.

4.2.7 Total Debt to Net Worth

The main objective to calculate this ratio is to measure the firm's obligations to creditors in relation to the fund invested by the owners. In this study total debt refers to all depositors, bill payable, borrowing made from other banks and other liabilities. Similarly net worth or share holders equity refers to paid up capital reserve surplus and undistributed profits. Generally a high debt to equity ratio is unfavorable to the business firm because debt gives third parties legal claims over the company. On the other hand a very low debt to equity ratio is unfavorable from the shareholders point of view. They want this ratio to be high so that they can have better return with smaller capital. Investment of debt in the business is considered beneficial when the interest rate is less than the return as this increases shareholders wealth. This process is known as trading on equity. Therefore, an appropriate mixture of debt and equity capital should be maintained by the firm to maximize the owners' wealth. This ratio measures the preparation of external liability in the total capital of the Firm. Total debt to net worth ratio of HBL & Nabil is calculated and presented below.

Total Debt to Net Worth ratio = Total Debt / Shareholders Equity

Table 4.11

Total Debt to Net Worth of HBL & Nabil

(Rs. In Million)

F/Y	HBL		NABIL	
	Total Debt	Net worth	Total Debt	Net worth
2002/03	22292.1	1905.88	15248.44	1314.19
2003/04	23437.86	2291.93	15263.8	1481.68
2004/05	26302.95	2568.4	16528.02	1657.6
2005/06	27694.21	2885.59	20454.98	1875.0
2006/07	31372.64	2942.23	25196.34	2057.0
2007/08	33662.54	3195.42	34695.61	2437.2

Table 4.11 represents the total debt and net worth of Himalayan Bank Ltd. and Nabil Bank Ltd. from the fiscal year 2002/03- 2007/08. Total debt of HBL showed an increasing trend during this period. In the fiscal year 2002/03 the total debt of HBL was Rs 22292.1 Million and by the end of the fiscal year 2007/08 it reached to Rs 33662.54 Million. Similarly net of worth also showed an increasing trend. The net worth of HBL in the fiscal year 2002/03 was 1905.88 then it started to increase and reached to 3195.42 by the end of the fiscal year 2007/08.

While studying the total debt and net worth of Nabil bank Ltd. it is seen that there is also an increasing trend. From the fiscal year 2002/03 to the fiscal year 2007/08. in the fiscal year 2002/03 total debt of the bank was Rs 15248.44 Million and start to increase and reached to Rs 34695.61 by the end of the fiscal year 2007/08. in the fiscal year 2002/03 net worth of Nabil Bank was 1314.19, then by the end of the fiscal year 2007/08 it reached 2437.20 showing an increasing trend.

Total debt to net worth ratio of HBL & Nabil Bank are shown in the following table.

Table 4.12

Total Debt to Net worth Ratio of HBL & Nabil Bank

F/Y	HBL			% Change	NABIL			% Change
	Total Debt	Net worth	Ratio		Total Debt	Net worth	Ratio	
2002/03	22292.1	1905.88	1169.65		15248.44	1314.19	0.00	
2003/04	23437.86	2291.93	1022.63	-147.02	15263.8	1481.68	1030.17	103017%
2004/05	26302.95	2568.4	1024.10	1.47	16528.02	1657.6	997.11	-3306%
2005/06	27694.21	2885.59	959.74	-64.36	20454.98	1875.0	1090.93	9383%
2006/07	31372.64	2942.23	1066.29	106.55	25196.34	2057.0	1224.91	13397%
2007/08	33662.54	3195.42	1053.46	-12.83	34695.61	2437.2	1423.58	19868%
Total			6295.86				5766.70	
Average			1049.31				961.12	
S.D.			36.82				494.85	
C V			3.5				51.49	

Table 4.12 represents the total debt net worth ratio of HBL& Nabil Bank Ltd. the figure presented in table showed that ratio of both banks showed a fluctuating trend. The

percentage change of HBL in the fiscal year 2006/07 is 106.55 which is the highest positive change, and in the fiscal year 2003/04 it is -147.02% which is the highest negative change. In case of Nabil Bank Ltd. in the fiscal year 2003/04 the percentage change is 1030.17% which is the highest in compared to other fiscal year. In the fiscal year 2004/05 it is 33.06% which is only the negative change.

While studying the standard deviation and coefficient of variation Standard deviation and coefficient of HBL is lower than Nabil Bank Ltd. it shows that HBL is more consistent than Nabil bank Ltd.

4.2.8 Total Debt to Total Assets Ratio

This ratio measures the relationship between financial contribution of outsiders and owners on total assets of the firm. It also provides security to outsiders to pay their regular interest, dividend, and principal within prescribed time. Generally creditors prefer the companies to use low debts owners on the contrary prefer high debt to earn more return. This ratio is similar as debt to equity ratio. Higher debt ratio indicated higher financial risk as well as increasing claim of outsiders in total assets of the firm and vice versa. Generally 1:2 ratios are considered good but however no hard and fast rule is prescribed. The ratio of both banks is calculated and presented as follows.

Total Debt to Total Assets Ratio = Total Debt / Total Assets

Table 4.13**Total Debt to Total Assets of HBL & Nabil Bank Ltd.**

F/Y	HBL		NABIL	
	Total Debt	Total Asset	Total Debt	Total Asset
2002/03	22292.1	24197.98	15248.44	16562.62
2003/04	23437.86	25729.79	15263.8	16745.49
2004/05	26302.95	28871.34	16528.02	17064.08
2005/06	27694.21	30579.81	20454.98	22329.97
2006/07	31372.64	34314.87	25196.34	27253.39
2007/08	33662.54	36858.01	34695.61	37132.76

Table 4.13 represents the total debt and total assets of HBL & Nabil Bank Ltd. total debt and total assets of both banks showed an increasing trend. In the fiscal year 2002/03 total debt and Total assets of HBL was Rs 22292.1 million and Rs 24197.98 million respectively. By the end of the fiscal year 2007/08 it reached to Rs 33662.54 and Rs 36858.01 Million respectively. In the fiscal year 2002/03 total debt and total assets of Nabil bank was Rs 152248.44 and Rs 16562.62 Million and by the end of the fiscal year 2007/08 it reached to Rs 34695.61 and 37132.76 million showing an increasing trend.

Table 4.14**Total Debt to Total Assets Ratio of HBL & Nabil Bank Ltd.**

F/Y	HBL			NABIL				
	Total Debt	Total Asset	Ratio	% Change	Total Debt	Total Asset	Ratio	% Change
2002/03	22292.1	24197.98	92.12		15248.44	16562.62	92.07	
2003/04	23437.86	25729.79	91.09	-1.03	15263.8	16745.49	91.15	-91%
2004/05	26302.95	28871.34	91.10	0.01	16528.02	17064.08	96.86	571%
2005/06	27694.21	30579.81	90.56	-0.54	20454.98	22329.97	91.60	-526%
2006/07	31372.64	34314.87	91.43	0.86	25196.34	27253.39	92.45	85%
2007/08	33662.54	36858.01	91.33	-0.10	34695.61	37132.76	93.44	98%
Total			547.64				557.57	
Average			91.27				92.93	
S.D.			30.11				2.04	
C V			0.33				2.19	

Table 4.14 represents the total debt to total Assets ratio of HBL & Nabil Bank Ltd. both of banks showed a fluctuating trend during the period. However the deviation in the

percentage change of HBL is less than that of Nabil bank ltd. the lowest % change of HBL is in fiscal year 2004/05 which is only -.01 and the highest change is in the fiscal year 2003/04 which is 1.03%. The percentage change of Nabil bank in the fiscal year 2007/08 is 98% which is the highest percentage and in the fiscal year 2005/06 it is 52.6% which is the lowest change.

While comparing the Standard Deviation and CV of two banks it seen that standard deviation and CV of Himalyan Bank is less than that of Nabil Bank ltd. CV measures the risk per unit of return. CV of Himalayan Bank is 0.0033 while CV of Nabil is 0.219. According to CV it can be said that there is less risk in Himalayan Bank than of the Nabil Bank ltd.

4.2.9 Capital Adequacy Ratio

This ratio measures the portion of firm's capital fund with respect to the total deposits. Banks should maintain the capital fund according to their requirement. If banks have been holding more capital than their minimum requirement it can cause to have higher holding cost and low return and at the same time holding too little amount of capital then required may have disadvantage of inadequacy and shortage of fund. So in this conte4xt Nepal Rastra Bank directs the commercial banks to increase or decrease by fixing their percentage of capital fund out of total deposits. If the banks are unable to meet the require rate, they should increase paid up capital or transfer a part of profit to generate reserve to meet there requirement .here capital fund includes total of paid up capital, reserve and surplus and undistributed profit. Total deposits includes total of current deposits, saving deposits, fixed deposits and cal and other deposits. The ratio of HBL & Nabil bank is calculated as follows.

Capital Adequacy Ratio = Capital Fund / Total Deposit

Table 4.15**Capital Fund and Total Deposits of HBL & Nabil Bank Ltd.**

F/Y	HBL		NABIL	
	Capital Fund	Total Deposit	Capital Fund	Total Deposit
2002/03	160421.21	21045.09	145509.56	13447.66
2003/04	179621.89	22010.33	160941.63	14119.03
2004/05	201706.37	24814.01	176607.25	14586.61
2005/06	224284.3	26490.85	208932.4	19347.4
2006/07	243536.89	30048.42	230763.24	23342.29
2007/08	325351.6	31842.79	299873.02	31915.05

Table 4.15 shows the capital fund and Total deposits of Himalayan Bank and Nabil Bank Ltd. both of banks showed an increasing trend of Capital fund and Total deposits over the last six fiscal year 2002/03 – 2007/08.

Table 4.16**Capital Adequacy Ratio of HBL & Nabil Bank Ltd.**

F/Y	HBL Capital Fund	Total Deposit	Ratio	% Change	NABIL Capital Fund	Total Deposit	Ratio	% Change
2002/03	160421.21	21045.09	762.27		145509.56	13447.66	1082.04	
2003/04	179621.89	22010.33	816.08	5381%	160941.63	14119.03	1139.89	5785%
2004/05	201706.37	24814.01	812.87	-321%	176607.25	14586.61	1210.75	7086%
2005/06	224284.3	26490.85	846.65	3378%	208932.4	19347.4	1079.90	-13085%
2006/07	243536.89	30048.42	810.48	-3617%	230763.24	23342.29	988.61	-9129%
2007/08	325351.6	31842.79	1021.74	21126%	299873.02	31915.05	939.60	-4901%
Total			5070.10				6440.79	
Average			845.02				1073.46	
S.D.			81.15				98.39	
C V			9.6				9.66	

Table 4.16 represents the capital adequacy ratio of HBL & Nabil Bank Ltd. both of banks showed a fluctuating trend. Coefficient of variation of both are nearly equal (ie CV of HBL=9.6 & CV of Nabil =9.66) so it can be said that both banks consistent is same.

4.2.10 Debt Capacity Ratio (Interest Coverage Ratio)

To analyze debt capacity of the bank or to indicate the firm's ability to meet interest obligations, interest coverage ratio is calculated. Interest coverage ratio is one of the most conventional coverage ratios, which measures the relationship between what is normally available from operation of the firms and the claims of the outsiders. It is used to test firm's debt serving capacity. Here EBIT denoted payable on both the deposits and borrowing. From the view point of creditors, the larger the coverage the greater the ability of the firm to handle fixed charges and assurance of the payment of interest to the creditors. However too high or low ratio is unfavorable to a firm. High ratio implies that the firm is using excessive debt and does not have the ability to offer assured payment of interest to the creditors. The ratio of both banks are calculated and tabulated in the following table.

Interest coverage ratio = $\text{EBIT} / \text{Interest Charges}$

Table 4.17

EBIT & Interest Charges of HBL & Nabil Bank Ltd.

F/Y	HBL		NABIL	
	EBIT	Interest Charges	EBIT	Interest Charges
2002/03	914.16	554.13	932.72	317.35
2003/04	912.12	491.54	940.02	282.95
2004/05	1084.5	561.96	1002.81	243.54
2005/06	1321.24	648.84	1254.99	351.16
2006/07	1448.81	767.41	1544.2	555.71
2007/08	1772.58	823.74	1847.43	758.44

As shown in table 4.17 EBIT and interest Charges of both bank showed a fluctuating trend. In the fiscal year 2002/03 EBIT of HBL was 914.16 and by the end of fiscal year 2007/08 it reached 1772.58. Similarly EBIT of Nabil bank in the fiscal year 2002/03 was 932.72 and by the end of the fiscal year 2007/08 it was 1847.43. while studying interest Charges, interest charges of HBL in the fiscal year 2002/03 was 554.13 and in the fiscal

year 2003/04 it decreased and reached 491.54. , by the end of the fiscal year 2007/08 it reached 823.74. Interest charge of Nabil in the fiscal year 2002/03 was 317.34, in the next year it is decreased and reached to 282.92 and by the end of the fiscal year 2007/08 it reached 758.44.

Table 4.18

Interest Coverage ratio of HBL & Nabil Bank ltd

HBL					NABIL			
F/Y	EBIT	Interest Charges	Ratio	% Change	EBIT	Interest Charges	Ratio	% Change
2002/03	914.16	554.13	164.97		932.72	317.35	293.91	
2003/04	912.12	491.54	185.56	20.59	940.02	282.95	332.22	3831%
2004/05	1084.5	561.96	192.99	7.42	1002.8	243.54	411.76	7954%
2005/06	1321.2	648.84	203.63	10.65	1255	351.16	357.38	-5438%
2006/07	1448.8	767.41	188.79	-14.84	1544.2	555.71	277.88	-7951%
2007/08	1772.6	823.74	215.19	26.39	1847.4	758.44	243.58	-3430%
Total			1151.13				1916.74	
Average			191.86				319.46	
S.D.			10.85				59.12	
C V			5.65				18.5	

Table 4.18 represents the interest coverage ratio of HBL & Nabil Bank ltd. EBIT and interest charge both showed a fluctuating trend during this fiscal year. The average interest charge ratio of HBL is 191.86 and standard deviation and coefficient of variation of HBL is 10.855 % and 5.65 respectively. The highest interest charge of HBL is in the fiscal year 2007/08 of 823.74 and lowest interest charge is in the fiscal year 2003/04 of 491.54. similarly highest percentage change of ratio is in the fiscal year 2007/08 which is 26.39 and the lowest percentage change is in the fiscal year 2004/05 which is 7.42%. While studying the EBIT and Interest coverage of Nabil banks it is seen that EBIT and interest Charges and ratio showed a fluctuating trend. In the fiscal year 2002/04 and 2003/04 the percentage change is positive but in the fiscal year 2004/05, 2005/06 and

2007/08 it is negative change. Average ratio of HBL is 191.86 and average ratio of Nabil is 319.46. The standard deviation and CV of HBL is 10.85% and 5.65 respectively. Standard deviation and CV of Nabil bank is 59.12 and 18.5 respectively. Less CV preferable so on the basis of interest coverage ratio HBL is less risky than the Nabil bank.

4.2.11 Capital Structure Position of the Banks

When debt and Equity are properly mixed it minimizes the cost of capital and maximizes the value of firm. In order to analyze the value of the firm, fixed deposits and equity share are taken into consideration. Net income approach is considered to find out the overall capitalization rate of the banks. In order to analyze the capital structure management of the banks, the value of the firm is calculating by adding debt and equity. The structure of the banks is of fixed deposits and equity share capital only where equity share capital is valued at market price. The table below shows the mixed capital structure of Himalayan Bank and Nabil Bank Ltd.

Table 4.19

Mix Capital Structure of HBL & Nabil Bank ltd .

(Rs in Million)

F/Y	HBL Fixed Deposit	Equity at MPV	Total Vaue (FD+ES)	NABIL Fixed Deposit	Equity at MPV	Total Vaue (FD+ES)
2002/03	3205.37	3586.44	6791.81	2252.54	3638.24	5890.78
2003/04	4710.18	4504.50	9214.68	2310.57	4916.54	7227.11
2004/05	6107.43	5920.20	12027.63	2078.54	7399.40	9477.94
2005/06	6350.2	8494.20	14844.40	3449.09	11013.06	14462.15
2006/07	8201.13	14108.09	22309.22	5435.99	24828.55	30264.54
2007/08	6423.87	20067.55	26491.42	8464.09	36356.14	44820.23

Table 4.19 represents the mix capital structure of Himalayan Bank Ltd and Nabil Bank Ltd. in the fiscal year 2002/03 the total value of HBL is higher than Nabil Bank Ltd. but by end of the fiscal year 2007/08 Total Value of Nabil Bank Ltd is higher than HBL. During the fiscal year 2002/03 – 2007/08 both of banks showed an increasing trend but the increasing trend of Nabil Bank Ltd. is higher than that of HBL. Fixed deposit of HBL showed an increasing trend but in the case of Nabil Bank Ltd in the fiscal year 2004/05 there is a decreasing trend.

4.2.12 Net Income Approach (Overall Capitalization Rate, K_o)

Under the Net income approach the capital structure decision is relevant to the valuation of the firm. According to this approach a change in the capital structure / financial leverage will lead to a corresponding change in the overall cost of capital as well as the total value of the firm. The overall capitalization rate is calculated under the net income approach, which measures the degree of leverage of the firm. This approach assumes that the cost of debt is less than cost of equity. So if the degree of financial leverage is increased, the weighted average cost of capital will decline as a result value of firm will increase. The higher the use of cheaper debt lowers the cost and consequently increases the value of firm. Over capitalization rate of HBL & Nabil is calculated and shown in the following table.

$$K_o = \text{EBIT} / \text{Value of Firm}$$

Table 4.20**Overall Capitalization Rate of HBL & Nabil Bank Ltd.(in percentage)**

F/Y	HBL EBIT	Value of The firm	Ratio	% Change	NABIL EBIT	Value of The firm	Ratio	% Change
2002/03	914.16	6791.81	13.46		932.72	5890.78	15.83	
2003/04	912.12	9214.68	9.90	-3.56	940.02	7227.11	13.01	-283%
2004/05	1084.5	12027.63	9.02	-0.88	1002.81	9477.94	10.58	-243%
2005/06	1321.24	14844.40	8.90	-0.12	1254.99	14462.15	8.68	-190%
2006/07	1448.81	22309.22	6.49	-2.41	1544.2	30264.54	5.10	-358%
2007/08	1772.58	26491.42	6.69	0.20	1847.43	44820.23	4.12	-98%
Total			54.46				57.32	
Average			9.08				9.55	
S.D.			1.36				3.32	
C V			14.99				34.79	

As shown in table 4.20 average overall capitalization rate of HBL & Nabil Bank Ltd is 9.08% and 9.55% respectively. The ratio change of overall capitalization rate of HBL in the fiscal year 2007/08 is only positive. Other wise in all of the fiscal year 2002/03 – fiscal year 2006/07 it is negative change. The highest percentage change is in the fiscal year 2003/04 which is -3.56%. Similarly the highest percentage of Nabil bank is in the fiscal year 2006/07 which is -358%.

4.2.13 Net Operating Income Approach (Equity Capitalization Rate K_e)

The net operating income approach is considered to find out and analyze the equity capitalization rate of HBL & Nabil Bank Ltd. according to NOI approach any degree of leverage of capital structure decision of the firm is irrelevant to valuation of the firm. This approach says that overall capitalization rate of the firm remains constant for all degree of leverage but equity capitalization rate increases with the increase of degree of leverage. Regarding to the HBL & Nabil Bank Ltd. the equity capitalization rate is calculated and presented as follows.

$$K_e = \text{Earning Before Tax} / \text{Market Value of Equity}$$

4.3 Presentation & Analysis of Primary Data

The study has followed secondary data as supporting base which has been taken from previous resources, studies, report, library search and other related documents. In the course of first hand data to justify the study on the topic primarily, interviews and questionnaire method have been made applicable. It reveals the important information as to outlook of the investment decision of investors.

A number of questions were put up by means of 20 copies of questionnaire. Categorically, the questions raised through this means were of three types.

- Yes/ No question
- Multiple choice questions

100% of the questionnaires were collected from the field survey. The questionnaire so collected is thus related to find out the opinion of investors on investment action for trading share through secondary market. Sample is attached in appendix -1.

1 Suitable Capital Structure for a Commercial Bank

While asking question about the suitable capital structure for a commercial bank, altogether 20 respondents were asked. The details of respondents view is shown below.

Table 4.21

Suitable Capital Structure for a Commercial Bank

S.No	Research Variables	No. of respondent	Percentage
A	High Geared Capital Structure	4	20
B	Low Geared Capital Structure	12	60
C	No Idea	2	10
D	50% Debt and 50% Equity	2	10
	Total	20	100

As shown in table 4.21 most of the respondent preferred low geared capital structure in the capital structure of banks. Similarly 10 percentage of the respondent said that they don't have any idea about the capital structure of banks.

2. Review in the Capital Structure of Banks

Capital structure affects the profit of a bank so it should be changed as per the time. Respondents were asked 'In your view is there any necessary to change the capital structure of commercial banks of Nepal? The details of respondents view are shown below.

Table 4.22

Review in the Capital Structure of Bank

S.No	Research Variables	No. of respondent	Percentage
A	Yes	3	15
B	No	4	20
C	Should be changed as per Int. Banks	10	50
D	As per NRB Direction	3	15
	Total	20	100

As shown in table 4.22 capital structures of banks should be changed as per the international banks. It is found by the field survey. 50 percentage of the respondents

said that Nepalese commercial banks should change the capital structure as per the international banks. Least percentage ie 15% of the respondent said that it should be changed as per the NRB direction.

3. Suitable Source of Debt financing

There are two types of capital in the capital structure of banks, Ordinary share and Debt capital. For the debt holder interest should be paid in fixed amount. Respondents' views about source of debt financing are shown below.

Table 4.23

Suitable Source of Debt Financing

S.No	Research Variables	No. of respondent	Percentage
A	Yes	3	15
B	No	4	20
C	Should be changed as per int. Banks	10	50
D	As per NRB Direction	3	15
	Total	20	100

Table 4.23 represents the suitable debt financing of commercial banks. NRB direction is the most considerable aspects.

4 Profit Generating main sources of Commercial Banks

While asking question about the source of income for a commercial bank, Majority of the respondents take Return from different investment sectors as the main source. The details are shown below.

Table 4.24
Profit Generating Main Sources

S.No	Research Variables	No. of respondent	Percentage
A	Return form diff. investment sectors	12	60
B	Interest income	2	10
C	Misc. Commission & fees	4	20
D	Other	2	10
	Total	20	100

Return from different investment sectors is the main source of income for the commercial banks. 60 percent of the respondents choose this option, similarly interest income and other source is the least source of income.

5. Debt Serving Capacity

The company should refund the debt amount to the debt holder after a fixed time. Debt holders are not the shareholder of the company, so profit and other factors they don't consider. The base of debt serving capacity according to the respondents view is shown below.

Table 4.25
Debt Serving Capacity

S.No	Research Variables	No. of respondent	Percentage
A	The amount of Current assets	5	25
B	Interest Income	2	10
C	EBIT	8	40
D	EBT	5	25
	Total	20	100

While refunding the debt the most considerable aspect is earning before Interest Tax. And interest income is the least considerable aspect. It was found by the field survey.

6. Reasons to invest in Ordinary Share of Commercial Banks

There are various investment alternatives to invest in. Now a day's share market of Nepal is in developing condition. Shares are the best investment alternatives to the people. A question 'Why do people invest in the ordinary share of commercial bank? Were put to the respondent. The details of respondents view are as follows.

Table 4.26

Reasons to invest in Ordinary Share of Commercial Banks

S.No	Research Variables	No. of respondent	Percentage
A	To received Dividend	5	25
B	To take part in Management	2	10
C	Best investment alternative	8	40
D	To get Voting right	5	25
	Total	20	100

Share of commercial banks are the best alternative to make an investment. 40 percentage of the respondent choose this option. Least percentage ie 10 percentage of the respondent said that people invest their fund to take in management in the commercial banks.

7. Factors to be considered in an Appropriate Capital Structure

There are various factors which should be kept in mind while formulating a capital structure. Cost of capital, Return on capital employed, Net income, and investment opportunities etc. should be considered in commercial banks. The details are as follows.

Table 4.27

Factors to be considered in an Appropriate Capital Structure

S.No	Research Variables	No. of respondent	Percentage
A	Cost of Capital	12	60
B	Return on Capital Employed	3	15
C	Net income	1	5
D	Investment Opportunities	4	20
	Total	20	100

Cost of capital plays a vital role in the capital structure of commercial banks. Least cost of capital is preferable. As shown in table 4.27 majority of percentage ie 60% recommended the cost of capital factors while formatting the appropriate capital structure. Net income is the least preferable factors.

8. Most Important decision in a Commercial Bank

Management team should make various kinds of decision in a commercial bank. Such decision plays a great role in future. While asking question about the most important decision in a commercial bank, respondents showed their different views as follows.

Table 4.28

Most Important Decision in a Commercial Bank

S.No	Research Variables	No. of respondent	Percentage
A	Capital Structure decision	2	10
B	Investment decision	13	65
C	Dividend decision	1	5
D	All of above	4	20
	Total	20	100

As shown in table 4.28, 65% of the respondent said that investment decision is the most important decision in a commercial bank. 65 percent of the respondent choosed this option.

9. Investment alternatives for a commercial bank

Various investment alternatives are available to invest in, such as land and building, various kinds of industries, Hydropower etc. Out of these various alternatives which one is the best one? This question was put to the respondents, the details of respondents views are as follows

Table 4.29
Appropriate Investment Alternatives

S.No	Research Variables	No. of respondent	Percentage
A	Land & Building	2	10
B	Industries	5	25
C	Hydropower	3	15
D	All of Above	10	50
	Total	20	100

As shown in table 4.29 land & building, industries and hydropower are the best investment alternative for a commercial bank. They can invest in land building to earn maximum profit.

10 Views about the Trading Mechanism of Securities in trading floor

Nepal Stock Exchange is only the secondary market in Nepal. All kinds of securities are traded here from Sunday to Thursday. Altogether there are 23 brokers in Nepal Stock Exchange. Respondents were asked are they satisfied with the trading mechanism of securities in floor. The details of respondent's views are shown in following table.

Table 4.30

Trading Mechanism of Securities in Trading Floor

S.No	Research Variables	No. of respondent	Percentage
A	Yes	8	40
B	No	3	15
C	Mixed	5	25
D	Don't Know	4	20
	Total	20	100

Now in Nepal stock exchange there are 23 brokers in operation. Most of the respondent is satisfied with the trading mechanism of the share market of Nepal. They don't think that the numbers of broker are inadequate. But 15% of the respondents were found dissatisfaction.

11. Affects of International Banks to the Commercial Banks of Nepal

Nepal is a developing country. Each and every economic activity is affected by the international environment. Because of globalization whole world has become a village so no one country can stay alone. While asking question "Does the policy of international banks affect the capital structure of Nepalese commercial banks? Respondents showed their mixed arguments are shown in following table.

Table 4.31

Affects of International Banks

S.No	Research Variables	No. of respondent	Percentage
A	Yes	9	45
B	No	2	10
C	Little Bit	1	5
D	Fully	8	40
	Total	20	100

Because of globalization world has become a big village. All the policy of international banks affects the commercial banks of Nepal. 45% percentage of the respondent said that there are fully effects in commercial banks. 5 percentage of the respondents said that there is little bit effects in the Nepalese's commercial banks.

4.4 Major Findings of the study

Major from the primary data

- ❖ With respect to capital structure of banks majority of the respondent stated that low geared capital structure is suitable for commercial banks. It was found from the primary data collection.
- ❖ Majority of respondents, who preferred low geared capital structure, stated the reason behind preferring it is due to the lack of regular fixed income in paying the interest expenses and to claim more earned profit by the shareholders.
- ❖ Majority of the respondents, who preferred high geared capital structure stated the reason behind preferring it, is due to the regular fixed income of commercial banks to meet its fixed interest expenses and to enjoy high EPS.
- ❖ While asking question about the capital structure of commercial banks it is found that the capital structure of commercial banks should be changed as per the international banks.
- ❖ While asking question about the suitable debt financing of banks it is found that majority of the respondent stated that it should be implement as per the NRB direction.

- ❖ While formulating the appropriate capital structure of banks it is found that the banks should consider the cost of capital. It is due to the cost of capital affects the profit and the value of a firm.
- ❖ Majority of the respondent stated that the most important decision of commercial bank is investment decision.
- ❖ Majority of the respondent stated that Land building, hydropower and various kinds of industries are the main investment alternatives for commercial banks.
- ❖ While asking question about the affects of international banks to the Nepalese commercial banks, majority of the respondent said that there is fully affects of international banks to the Nepalese commercial banks.

Major findings from the secondary data

- ❖ The Fixed deposit amount of HBL was Rs 3205.37 million in the fiscal year 2002/03. After that also that showed a fluting trend and reached to the Rs 6423.87 at the end of the fiscal year 2007/08. Similarly annual rate of percentage change showed a fluctuating trend. The rate of percentage change in the fiscal year 2002/03 was 46.95% and -21.67% in the fiscal year 2007/08 which is a negative rate of % change.
- ❖ Capital Employed ratio of HBL showed a fluctuating trend. The percentage change in the fiscal year 203/04 is 4.26 % then in the fiscal year 2005/06 it is negative ie -1.64% later by the end of the fiscal year 2007/08 it is -6.82%. Similarly in the case of Nabil bank ltd. the percentage change of capital employed

- ratio in the fiscal year 2003/04 is -2.23% and by the end of the fiscal year 2007/08 it is 5.10%.
- ❖ Highest Fixed Deposit to Total debt ratio of HBL in F/Y 2006/07 is 26.14% and the in the fiscal year 2002/03 it is 14.38% which is the lowest ratio during the 6 fiscal year 2002/03- 2007/08. Similarly percentage change of the fixed deposit to total debt ratio also showed a fluctuating trend during this fiscal year. In the case of Nabil Bank Ltd. the highest Fixed Deposit to Total Debt ratio is in fiscal year 2007/08 which is 24.40% and the lowest ratio is 12.58% in the fiscal year 2004/05.
 - ❖ Total debt and net worth of Himalayan Bank Ltd. and Nabil Bank Ltd. from the fiscal year 2002/03- 2007/08. Total debt of HBL showed an increasing trend during this period. In the fiscal year 2002/03 the total debt of HBL was Rs 22292.1 Million and by the end of the fiscal year 2007/08 it reached to Rs 33662.54 Million. Similarly net of worth also showed an increasing trend. The net worth of HBL in the fiscal year 2002/03 was 1905.88 then it started to increase and reached to 3195.42 by the end of the fiscal year 2007/08.
 - ❖ While studying the total debt and net worth of Nabil bank Ltd. it is seen that there is also an increasing trend. From the fiscal year 2002/03 to the fiscal year 2007/08. In the fiscal year 2002/03 total debts of the bank was Rs 15248.44 Million and start to increase and reached to Rs 34695.61 by the end of the fiscal year 2007/08. In the fiscal year 2002/03 net worth of Nabil Bank were 1314.19, then by the end of the fiscal year 2007/08 it reached 2437.20 showing an increasing trend.

- ❖ Interest coverage ratio of HBL & Nabil Bank Ltd. EBIT and interest charge both showed a fluctuating trend during this fiscal year. The average interest charge ratio of HBL is 191.86 and standard deviation and coefficient of variation of HBL is 10.855 % and 5.65 respectively. The highest interest charge of HBL is in the fiscal year 2007/08 of 823.74 and lowest interest charge is in the fiscal year 2003/04 of 491.54. Similarly highest percentage change of ratio is in the fiscal year 2007/08 which is 26.39 and the lowest percentage change is in the fiscal year 2004/05 which is 7.42%. While studying the EBIT and Interest coverage of Nabil banks it is seen that EBIT and interest Charges and ratio showed a fluctuating trend. In the fiscal year 2002/04 and 2003/04 the percentage change is positive but in the fiscal year 2004/05, 2005/06 and 2007/08 it is negative change. Average ratio of HBL is 191.86 and average ratio of Nabil is 319.46. The standard deviation and CV of HBL is 10.85% and 5.65 respectively. Standard deviation and CV of Nabil bank is 59.12 and 18.5 respectively. Less CV preferable so on the basis of interest coverage ratio HBL is less risky than the Nabil bank
- ❖ In the fiscal year 2002/03 the total value of HBL is higher than Nabil Bank Ltd. but by end of the fiscal year 2007/08 Total Value of Nabil Bank Ltd is higher than HBL. During the fiscal year 2002/03 – 2007/08 both of banks showed an increasing trend but the increasing trend of Nabil Bank Ltd. is higher than that of HBL. Fixed deposit of HBL showed an increasing trend but in the case of Nabil Bank Ltd in the fiscal year 2004/05 there is a decreasing trend.
- ❖ In the fiscal year 2007/08 altogether 15 companies including 1 Commercial banks, 4 Development banks, 8 finance companies, 2 insurance companies, and

- one other company issued securities to public. The amount of issue was Rs 3874.75 million.
- ❖ While issuing securities of Infrastructure development bank there was an over subscription of 93.55 % and it is the highest percentage during this period, similarly while issuing securities of Lord Buddha Financial Institutional Ltd there was an over subscription of 16.73 % which is the lowest oversubscription during the period.
 - ❖ In the fiscal year 2007/08 altogether 42 companies comprising eight commercial banks, 11 development banks, 20 finance companies, and three insurance companies issued right share of Rs 6087.10 million.
 - ❖ MPS of HBL in the fiscal year 2002/03 is Rs 836 than it showed an increasing trend to the fiscal year 2007/08. by the end of the fiscal year 2007/08 the MPS of Himalayan Bank reached to Rs 1980. There is no decreasing trend during trend from the fiscal year 2002/03 – Fiscal year 2007/08. Number of Equity shares of Himalayan Bank in the fiscal year 2002/03 is 4290000 and by the end of the fiscal year 2007/08 it is 10135125 shares.
 - ❖ Market price per share of Nabil bank ltd in the fiscal year 2002/03 was Rs 740 but it showed a dramatically increasing trend and by the end of the fiscal year 2007/08 it reached to Rs 5275 which is higher than Himalayan Bank ltd. The number of shares of Nabil Bank ltd in the fiscal year 2002/03 is 4916544 and by the end of fiscal year 2007/08 it is 6892160 shares.

CHAPTER- V

SUMMARY, CONCLUSION & RECOMMENDATION

Summary, Conclusion & Recommendation are the last chapter thesis. This chapter represents and indicates the whole thesis in brief. The whole thesis can be checked by this chapter only. Generally summary represents the short form of the thesis; conclusion represents some idea & view from the analysis and presentation of data, & Recommendation gives some suggestions for future study. The main thing about the share price is that, the price movement in the secondary market is high. Generally there is no price movement in the primary market. Till now all of the companies have issued their primary share in par value of Nrs 100/share but Nepal Telecom is only the company in Nepal in case of issuing share in premium of minimum of Nrs 600/share. While analyzing the capital structure of commercial banks, mainly the comparatively study of Himalayan Bank Ltd. and Nabil Bank Ltd., various statistical tools are used.

5.1 Summary

This study entitled “Capital Structure of Commercial Banks A Comparative Study of Himalayan Bank Ltd. & Nabil Bank Ltd. has been prepared to fulfill the requirement of M.B.S. the main objective of this study is to evaluate the capital structure of commercial banks. This study is based on the secondary data collected from concerned banks, documents published and unpublished materials and primary data collected from the field survey. Descriptive as well as analytical research has been design to attain the objective of the study. The methods investigation is followed by accounting / financial tool ie. Percent mean, coefficient of variation etc. the scheme of the study is divided into five chapters. The brief introduction of the study has been already presented in the first chapter. In the second chapter the literature related to the study has been review. Research methodology has been explained in the third chapter and the available data have been explained in the third chapter. This last chapter incorporates the summary, conclusion and recommendation of this study.

5.2 Conclusions

While analyzing the capital structure of Himalayan Bank Ltd & Nabil Bank Ltd. the data are analyzed from the fiscal year 2002/03 – fiscal year 2007/08. Based on the major finding of the study conclusions are drawn.

The following are the major conclusions of this study.

Low geared capital structure is suitable for commercial banks. It was found from the primary data collection. To maintain the suitable debt financing of banks it should be implemented as per the NRB direction because NRB is the regulatory body of financing sectors. Capital structure of commercial banks should be changed as per the international banks because the effects of international banks are very high.

While formulating the appropriate capital structure of banks it is found that the banks should consider the cost of capital. It is due to the cost of capital affects the profit and the value of a firm. Land building, hydropower and various kinds of industries are the main investment alternatives for commercial banks. They can invest their fund into these sectors. The most important decision of commercial banks is investment decision there is fully affects of international banks to the Nepalese commercial banks. So commercial banks of Nepal should follow the various kinds of strategy of international banks.

Capital Employed ratio of HBL showed a fluctuating trend. The percentage change in the fiscal year 203/04 is 4.26 % then in the fiscal year 2005/06 it is negative ie -1.64% later by the end of the fiscal year 2007/08 it is -6.82%. Similarly in the case of Nabil bank ltd. the percentage change of capital employed ratio in the fiscal year 2003/04 is -2.23% and by the end of the fiscal year 2007/08 it is 5.10%. Highest Fixed Deposit to Total debt ratio of HBL in F/Y 2006/07 is 26.14% and the in the fiscal year 2002/03 it is 14.38% which is the lowest ratio during the 6 fiscal year 2002/03- 2007/08. Similarly percentage change of the fixed deposit to total debt ratio also showed a fluctuating trend during this fiscal year.

In the case of Nabil Bank Ltd. the highest Fixed Deposit to Total Debt ratio is in fiscal year 2007/08 which is 24.40% and the lowest ratio is 12.58% in the fiscal year 2004/05. In the fiscal year 2002/03 the total value of HBL is higher than Nabil Bank Ltd. but by end of the fiscal year 2007/08 Total Value of Nabil Bank Ltd is higher than HBL. During the fiscal year 2002/03 – 2007/08 both of banks showed an increasing trend but the increasing trend of Nabil Bank Ltd. is higher than that of HBL. Fixed deposit of HBL showed an increasing trend but in the case of Nabil Bank Ltd in the fiscal year 2004/05 there is a decreasing trend. In the fiscal year 2007/08 altogether 15 companies including 1 Commercial banks, 4 Development banks, 8 finance companies, 2 insurance companies, and one other company issued securities to public. The amount of issue was Rs 3874.75 million MPS of HBL in the fiscal year 2002/03 is Rs 836 than it showed an increasing trend to the fiscal year 2007/08. By the end of the fiscal year 2007/08 the MPS of Himalayan Bank reached to Rs 1980. There is no decreasing trend during trend from the fiscal year 2002/03 – Fiscal year 2007/08. Number of Equity shares of Himalayan Bank in the fiscal year 2002/03 is 4290000 and by the end of the fiscal year 2007/08 it is 10135125 shares.

Interest coverage ratio of HBL & Nabil Bank Ltd. EBIT and interest charge both showed a fluctuating trend during this fiscal year. The average interest charge ratio of HBL is 191.86 and standard deviation and coefficient of variation of HBL is 10.855 % and 5.65 respectively. The highest interest charge of HBL is in the fiscal year 2007/08 of 823.74 and lowest interest charge is in the fiscal year 2003/04 of 491.54. Similarly highest percentage change of ratio is in the fiscal year 2007/08 which is 26.39 and the lowest percentage change is in the fiscal year 2004/05 which is 7.42%. While studying the EBIT and Interest coverage of Nabil banks it is seen that EBIT and interest Charges and ratio

showed a fluctuating trend. In the fiscal year 2002/04 and 2003/04 the percentage change is positive but in the fiscal year 2004/05, 2005/06 and 2007/08 it is negative change. Average ratio of HBL is 191.86 and average ratio of Nabil is 319.46. The standard deviation and CV of HBL is 10.85% and 5.65 respectively. Standard deviation and CV of Nabil bank is 59.12 and 18.5 respectively. Less CV preferable so on the basis of interest coverage ratio HBL is less risky than the Nabil bank

5.3 Recommendations

After identifying strengths and weakness derived from major findings, some practicable recommendations are suggested. It is expected that the provided suggestions would help in taking quick decisions in relation to capital structure of banks. The recommendations are as below.

- ❖ Commercial banks are recommended to use low geared capital structure when they are newly established because at this point banks do not have sufficient fixed regular income to meet their fixed charges (Interest Expenses) but when banks starts earning profit it is recommended to changes its capital structure into higher geared because at this point they can meet their fixed interest expenses.
- ❖ Commercial banks are recommended to go through its cost of capital too while changing capital structure composition. If the cost of capital is lower than its return they are recommended to use more debt capital. If the cost of capital is higher than its return they are recommended to use only equity capital. But the banks cannot run without debt because the major functions of the banks are to collect debt. So they are recommended to use its debt in profitable sectors only.

- ❖ Banks are recommended to distribute more profit as dividend to their shareholders so that they can increase their goodwill and can raise more share capital when their shares are issued in the market
- ❖ Banks are recommended to keep sound debt policy.
- ❖ . they are recommended to provide various schemes to attract more depositors to the banks
- ❖ The capital structure of both banks is highly leveraged. The proportion of debt and equity capital should be decided keeping in mind the effects of tax advantage and financial distress. Since the debt equity ratio of both banks has been found extremely higher. The capital structure position is not better. Keeping this fact in mind 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 banks it will compromise among the conflicting factors of cost and risk.
- ❖ Return ratios like return on total debt and return on total assets are weak in HBL at the mean time it is not satisfactory in Nabil. Having geared up capital structure position and insufficient returns represent the weak aspects of these banks both the banks are suggested to use the resources into the most profitable sectors.
- ❖ Both the banks vary in case of total assets, number of staff, number of branches, and their volume of transactions. Both the banks are well established, however office operating expenses of HBL are higher than that of Nabil Bank Ltd. Similarly provision for staff bonus of HBL is quite higher than that of Nabil Bank. So HBL

- is suggested to minimize the cost. Operating cost of both banks seems high so operating cost also should minimize.
- ❖ Majority of the joint venture banks have been found to be profit oriented ignoring their social responsibilities so it is not proper strategy even sustain in long time. So both banks are suggested to render services even in rural areas providing special loans to the deprived and priority sectors, which might be further, intensify the goodwill of the banks in future. In addition they have-not been able to collect the savings from rural areas. So they are recommended to open branches in rural areas also.
 - ❖ It is true that the financial strength of a bank heavily depends upon the market in urban areas. But to concentrate banking services only in urban areas isn't desirable for the economic development of a country. Rural communities are neglected by commercial banks. They have-not opened their branches to serve society adequately. . A concentration of branches only in urban areas doesn't make any contribution to the economic development. Banks are essential and effective means to mobilize financial resources throughout the country. So the banks are required to be cooperative and should open up or extend their branches in remote areas.
 - ❖ It has been found that modern banking technologies followed by NRB of Nepal are mostly beneficial to the high level of depositors so both the banks are suggested to make these technologies accessible to all kinds of their depositors as far as possible.

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APPENDIX -1

CAPITAL STRUCTURE OF COMMERCIAL BANKS

Comparative study of Nabil Bank Ltd. & Himalayan Bank Ltd.

[Questionnaire]

Dear Sir / Madam,

I hereby request you to fill up the questionnaire prepared by me for collecting the primary data which would be prepared for facilitating the research conducted for the partial fulfillment for the requirement of the MBS degree. The research topic is “Capital Structure of Commercial Banks, comparative study of Nabil Bank Ltd and Himalayan Bank Ltd. Here your view will be used to make this research complete and meaningful. Be sure, your personal details and view will not be published anywhere. One of the most popular and widely used methods of collecting the primary data is questionnaire method. In this questionnaire, most of the questions are of Objective type so just use tick mark [] on the box but some questions need your view also. Write down your short view where necessary. Your kind cooperation will be helpful to complete this study successfully.

Subina Shrestha

(Researcher)

Master of Business Studies

Shanker Dev Campus

About the respondent

Name :

Address :

Phone no. :

Email :

Occupation:

Date :

Please Tick the relevant answer

1. What type of capital structure do you prefer for a commercial bank?

- (a) High Geared Capital Structure [] (b) Low Geared Capital Structure []
(c) No Idea [] (d) 50% Debt & 50% Equity []

[Note: High geared capital structure = (Debt capital + Preferences share capital > Ordinary Share capital)]

[Low Geared Capital Structure= (Debt capital + Preferences share capital < Ordinary Share capital)]

2. In your view is there any necessary to change the capital structure of commercial banks of Nepal?

- (a) Yes [] (b) No []
(c) Should be changed as per International Banks []
(d) Should be considered the direction of N.R.B. []

3. Which of the following source of debt financing is suitable for a commercial bank?

- (a) Only Fixed deposits [] (b) Only Debenture []
(c) Both of above [] (d) Loan []

4. In your view what is the main profit generating source of commercial banks?

- (a) Return form different investment sectors [] (b) Interest income []
(c) Miscellaneous commission & Fees [] (d) Other []

5. What does the debt serving capacity depend on?

- (a) The amount of current assets that it holds []
(b) Earning Before Interest and Tax []
(c) Net Income [] (d) Earning Before Tax []

6. Why do people invest in ordinary share of commercial banks?

- (a) To receive dividend [] (b) To take part in management []
(c) This is the best alternative of investment []
(d) To get voting right []

7. What factors should be considered to choose an appropriate capital structure?

- (a) Cost of Capital [] (b) Return on capital employed []
(c) Net income [] (c) Investment Opportunities []

8. Which of the following decision, do you think, is the most important in commercial bank?

- (a) Capital Structure decision [] (b) Investment decision []
(c) Dividend decision [] (d) All of above []

9. What may be the appropriate investment alternatives for a commercial bank?

- (a) Land & Building [] (b) Industries []
(c) Hydropower [] (d) All of above []

10. Are you satisfied with the trading mechanism of securities in Trading Floor?

- (a) Yes [] (b) No []
(c) Mixed [] (d) Don't Know []

11. Does the policy of international banks affect the capital structure of Nepalese commercial banks?

- (a) Yes [] (b) No []
(c) Little bit [] (d) fully []

Thank You

APPENDIX – 2

Respondents

S.no.	Name of the respondent	Occupation
1	Rejendra Koirala	Service
2	Biswas Acharya	Service
3	Asta B. Kshetri	Service
4	Nirupa Rana	Service
5	Puspa Raj Banstola	Service
6	Sabina Sharma	Student
7	Santosh Tandukar	Service
8	Salik Ram Thapa Chhetri	Service
9	Nitesh K.C.	Service
10	Parsu Ram Nepal	Service
11	Sujit Thapa	Service
12	Rajendra Karki	Service
13	Prabhakar Aryal	Business
14	Dinesh Aryal	Service

15	Kumari Aryal	Housewife
16	Deepa Adhikari	Student
17	Sunoj Shrestha	Student
18	Hare Ram Ghimire	Share Investor
19	Yam Karna Basnet	Job Holder
20	Man B. Bam	Student