CHAPTER I

INTRODUCTION

1.1 Background of the study

The theory of the capital structure is an important reference theory in enterprise's financing policy. The capital structure referred to enterprise includes mixture of debt and equity financing. Whether or not an optimal capital structure exists is one of the most important and complex issues in cooperate finance.

The modern theory of the capital structure originated from the path breaking contribution of Modigliani and Millerin 1958, under the perfect capital market assumption that if there is no bankrupt cost and capital markets are frictionless, if without taxes enterprises should be 100% of the debt. But this seems to be unreasonable in, the firm's value is independent with the structure of the capital. This is known as MM Proposition. In 1963, under considering the corporate taxes, Modigliani and Miller modified the conclusion to recognize tax shield. Because debt can reduce the tax to pay, so the best capital structure of the real world.

Jensen and Meckling (1976) introduce the concept of agency costs and investigate the nature of the agency costs generated by the existence of debt and outside equity. When considering corporation tax, bankrupt costs and agency costs at the same time, trade-off theory can be introduced to derive the existence of the optimum capital structure. Leland (1994) extends the results of Merton (1974) and Black and Cox (1976) to include taxes, bankruptcy costs to derive the optimal capital structure. Deangelo and Masulis (1980) argue that the existence of non-debt corporate tax shields such as depreciation deductions is sufficient to overturn the leverage irrelevancy theorem.

Hovakimian, Opler, and Titman (2001) tested the hypothesis that firms tend to a target ratio when they either raise new capital or retire or repurchase existing capital. They found firms should use relatively more debt to finance assets in place and relatively more equity to finance growth opportunities

Establishment and operation of industries need finance. The success and failure of Business depends manly upon the ability of management to make right financial decisions. Capital structure decision is one of the most complex area of financial decision making due to it's interrelationship with other financial decision variable. In order to achieve the firm's goal of

owner's wealth maximization. The financial manager must be able to assess the firm's capital structure and understand its relationship of risk, return and value. For the optimal capital structure, the analysis of risk and return on various leverage positions is essential. The risk of bankruptcy depends to an important extent on the operating risk or business risk and return on equity depends on operating efficiency. Thus, the optimal debt/equity mix depends on the nature of the business and therefore on the nature of investment that the company makes. But the capital structure decision in addition these variables is influenced by several other variables viz. nature of the company capital market situation, interest of the management and investors to control, liquidity position and operating efficiency of the company, company act and regulation etc. if a judicious decision of capital structure is made taking consideration various factor it will be a thing to maximize the value of the company. Obviously, there are various source of capital which differs in nature and cost associated with them. The successes of any business also largely depend upon the capital structure. It is simply the relationship between various long term forms of the financing such as debenture preference share capital and equity share capital. Financing the firm's asset is a very crucial problem in every business and as a general rule there should be a proper mix of debt and equity capital in financing the firm's assets. Though the capital structure cannot affect the total earning of the firms, it generally affects the earning available to equity share holders. In managing the value of shareholder wealth. A balanced capital structure is the prerequisite for successful business organization but it is lacking in almost all companies in Nepal. The capital structure of Nepalese company is of diverse nature, as no company seems to have followed a particular capital structure policy. Some of the companies' are using only equity capital and some are using both debt and equity irrespective of maximization of the firm.

One of the most perplexing issues facing financial managers is to relationship between capital structure and stock price. How much debt financing, as opposed to equity financing should a firm use? Should different industries and different firms within industries have different capital structures and if so what are the factors that lead to these differences? Studied capital structure which leads to the following conclusion:

1. There exists an optimal capital structure, or at least an optimal range of structure, for every firm.
2. However, financial theory is not powerful enough at this point to locate a firm optimal capital structure with precision.

3. The capital structure is not set in isolation; rather it depends on a set of factors. Which include the firm's dividend policy, its capital investment opportunities, and investor's preferences for different types of securities at each point in time?

Capital structure is concerned with the management of liabilities side of the balance sheet. It refers to the way the firm's assets are financed with. Prudent financial structure design requires answers to the following questions:

1. What should be the maturity composition of the firm's sources of funds?
2. In what proportions relative to should the various forms of permanent financing be utilized?

The first question refers to the division of short-term and long term funds, which is turn is decided by assets structure of the firm. The second question refers to the ratio of debt, preferred stock and equity to total assets, which implies capital structure management. The important aspect of capital structure management is to find out the proper mix that will maximize market price of share or minimize composite cost of capital. The proper mix is known as optimal capital structure.

There are four dimensional lists when thinking about capital structure lists:

1. Business Risk: Greater the firm's business risk the lower it is optimal debt ratio and vice versa.
2. The firm tax position: The major reason for using debt is that interest is deductible, which lowers the effective cost of debt. If the tax rate will be low, additional debt will not be as advantageous as if would be to a firm with higher effective tax rate.
3. Financial flexibility: Whine money is tight in the economy or when a firm is experiencing operating difficulties, suppliers of capital prefer to provide funds to companies with strong balance sheet. Therefore both the potential future need for fund and the consequences of a funds shortage influence the capital structure.
4. Managerial conservation or aggressiveness: Some managers are more aggressive that others, hence some firms are more, inclined to use debt in an offer to boost profit. This factor does not affect the true optimal, or value maximizing capital structure, but it does influence the manager determined capital structure.

These four points largely determine the capital structure, but operating condition can cause the actual structure to vary form the target.

Within a period of two and half decades, the Nepalese financial system has grown significantly both in terms of business volume and size of assets and market. The period show a number of financial institutions coming into existence with varied rapture of operations and offering a wide range of financial service. Since the second half of the 1980, significant achievement have been made in Nepalese financial system in mid July 2007, the Nepalese financial comprised the commercial banks, development banks, cooperatives, non-government organizations and some non banking financial institutions. Commercial banks, development banks, cooperatives and non-government organization licensed to carry out limited banking business come under the regulatory and supervisory jurisdiction of NRB.

From the above discussion, it is cleared that capital structure concept is not taken seriously by Nepalese companies. Therefore optimal capital structure does not exist at all. Cost of capital concept is not clear in Nepalese companies because it is impossible to minimize the average cost of capital without proper combination of capital structure component in financing of the firm. Determining the cost of capital is major problem in Nepalese companies. “It is in fact, an important measuring variable in the financing process of various companies for expanding the volume of companies. Management is not able to analysis cost of capital properly in their firm for investment decision making (Thapa & Gautam, 2066).

1.2Statement of the problem

To minimize risk for a given level of return and to maximize return for a given level of risk, banks have to manage their optimum capital structure. But in case of our country Nepal, banks are not paying enough attention towards this fact. The two oldest government involved banks (Nepal Bank and RastriyaBanijaya Bank Ltd) face loss despite their strong capital and deposits base is due to the lack of their capability in capital structure management. In other words the reason behind the weak financial position of these banks is the inability of their proper management of capital structure, which causes hither cost of fund. The matter of assisting in economic growth of the country by these banks is far away from the reality in this context of being burden to themselves with the proposition of non-performing loan about 20% of their total loan portfolio. Meanwhile the authorities are also going on with their campaign to bring these two largest and oldest banks of the country back to their health.

Every bank seems to go after a few lucrative business sectors or business houses and go for under price war. This has dis proportionately benefited a few business people at the cost of a larger sections of the population. The risk return tradeoff has not been properly analyzes

before making capital proportion, which has resulted the higher cost of fund then the acceptable level and is in comparatively increasing trend. Current situation of banking sector shows the growth of nonperforming assets (NPA) has been faster than growth of credit due to the higher cost of fund and poor management of loan.

Since a few year back, the trend of launching joint venture banks seems stopped and also reversed. Some of the foreign banks have withdrawn their investment from Nepal. Certainly the withdrawal of foreigners is as result of some anomalies in Nepali banking sector irrespective of what the withdrawing foreign bank would say officially to the Nepali authorities an to general public. If such situation of short sightedness prevails for longer, Nepalese banking sector may fail into the crisis as in East and Argentina. To avoid such potential crisis the concerned authority has to pay their proper attention in their capital structure management. Rare researcher made regarding this issue also indicates the less perceived importance for such a sensitive fact.

The main attempts of this study are to answer the following questions;

- How far have Siddharth Bank Ltd and Laxmi Bank Ltd been able to maintain the optimum capital structure?
- How far SBL and LBL are able to generate the income from utilization of debt efficiency?
- What are the factors affecting financial efficiency?
- To what extent the investors of these banks are getting benefits from its current operation.
- What is the actual overall financial condition of these banks?
- Is return level of the banks under study satisfactory in relation to the risk?
- Is there proper capital structure management in the banks under study?

1.3Objective of the study

The main objective of this study is to highlight the comparative study of capital structure and its impact upon overall banks performance of these two commercial banks. Followings are the specific objectives of the study:

a. To analyze the comparative position of capital structure between the two banks.
b. To examine the relationship between operating profit and interest expenses to measure the debt service capacity of the banks.

c. To analyze the effects and relation of capital structure to the return.
d. To examine capital structure and its adequacy.

1.4 Importance of the study

Development of banking sector is the fundamental framework of economic development for a country, which generates employment opportunities as well as it makes economically strong the nation. But most of the business organizations have been operating without sound capital structure. Only the establishment of any business organization is not important thing however operating the company with effectively & efficiently is essential. For this capital structure management should sound in the company, which maximizes the value of the firm and minimizes the overall cost of capital. By analyzing the capital structure of a company, it helps to find out strength & weakness of the company and helps to drive the firm into right track. These are different stakeholders in the company having their own interest and desires, where the main responsibility of a firm is to keep them satisfactory. It is possible only through the sound capital structure in the company. The importance of this study is to find out the factors related to capital structure management and helps to financial manager as a guideline. This study also importance for those who are interested on Investment as well as owners, creditors and shareholders to make their good attitude.

Similarly this study will helps to analyze the past success (or failure) aspects and may be useful to create sound capital structure. In overall, the study will be a guideline to improve the capital structure position that the company's EPS may increases as well as this study helps to provide available information and its weaknesses to the shareholders. It helps to measure the firm's ability or efficient to rise funds in future. The finding of this undertaking is expected to be useful to the policy maker of these companies and other interested researcher and the students.

1.5Limitations of the study

Every research has its own restriction and limitation due to the lack of time, resources and knowledge. The work is completed within the periphery of its limitation. Despite ample efforts on the part of the researcher this study is not free from limitations. This study also has some limitations which are as follows:

a. This study is based on secondary data. Thus the result of the analysis depends on accuracy of available information.

b. The study covers only the latest six fiscal years from 2012/13 to 2017/18.
c. This study is mainly conducted on the basis of secondary sources of data. (Annual reports of various banks, NRB and government publications and other related journals, the primary data will be included where matters.)
d. The study only covers the capital structure management and its impact on return trade off only Siddharth Bank Ltd and Laxmi Bank Ltd.
e. Standard normal performance level is not available as benchmark, especially in Nepalese context, so interpretations of data depend upon judgment.
f. Fixed Deposits of the banks has not been included into a debt capital.

1.6Organization of the study

The study has been organized into five chapters as per TribhuvanUniversity prescribed specimen of master thesis. Each devoted to some aspects of the study of capital structure of these two commercial banks in Nepal. The titles of each of these chapters are as follows:

CHAPTER I: INTRODUCTION -This chapter includes background, history of banking in Nepal, statement of the problem, objectives of the study, importance of the study and limitation of the study, where related subject matters have been included.

CHAPTER II: REVIEW OF LITERATURE- In this chapter, related subject matter & findings has been reviewed, so far as possible. In this study, concept of capital structure, financial leverage, cost of capital, theory of capital structure, optimal capital structure etc. has been reviewed.

CHAPTER III: RESEARCH METHODOLOGY- In this chapter, Research design and methodology has been discussed. Basically this chapter includes sources of data, data collection techniques, different data analysis tools that financial and statistical, such as financial tools and various ratio analysis, EBIT-EPS analysis etc, and so on in statistical tools. Coefficient of correlation, testing of hypothesis etc, has been discussed. Similarly sample and population of the study have been included.

CHAPTER IV: DATA PRESENTATION AND ANALYSIS- This chapter deals with the presentation and analysis of data. It consists of analyzing of capital structure of these two commercial banks in Nepal.

CHAPTER V:SUMMARY, CONCLUSION AND RECOMMENDATIONS-This chapter states summary and conclusions of the study. Also presents the major findings compare them with

theory and other empirical evidence to the extent possible. The bibliography and appendixes have been incorporated at the end of the study.

CHAPTER II

REVIEW OF LITREATURE

In this chapter, review of various literatures has been done to clarify the concept of the topic as well as to examine the previous studies made by various researchers in the field of capital structure. This chapter has been divided into the following sections.

2.1 Theoretical framework

This section is devoted to discuss briefly about the theoretical concept regarding the theories of capital structure.

2.1.1 Concept of capital structure

Before knowing the capital structure, we must know about the financial structure. Financial structure refers to the way the firm's assets are financed. Financial structure is represented by the liabilities side of the balance sheet. It includes short-term debt and long term debt as well as shareholders equity includes common stocks, paid on capital surplus, different kinds of reserves and accumulated amounted of retained earnings (Giri, 2006: 25).

Capital structure or the capitalization of the firm is the permanent financing. It includes long term debt, preferred stock and shareholder equity. Thus a firm's capital structure is only a part of its financial structure. The determination of the degree of liquidity of a firm is not a simple task. In the long run' liquidity may depend on the profitability of a firm, but whether it survives to achieve long run profitability depends to some extent on its capital structure. The determination of the degree of liquidity of a firm, but whether it survives to achieve long run profitability depends to some extent on its capital structure. This term includes only long-term debt and total stockholder investment. Some companies do not plan their capital structure, and it develops as a result if the financial decision taken by the financial manager without any formal planning.

The companies may prosper in the short run but ultimately they may face considerable difficulties in raising funds to finance their activities. With unplanned capital structure, these companies may also fail to economize the use of their funds. Theoretically, the financial manager should plan an optimal capital structure for his company. The optimal capital structure is obtained when the market value per share become maximum. In practice, the

determination of an optimal capital stricter is a formidable task, and one has to beyond the theory.

There are significant variations among industries and among individual companies within any industry in terms of capital structure. Since a number of factors influence the capital structure decision of a company, the judgment of the person making the capital structure decision plays a crucial part. These factors are highly psychological, complex and qualitative and do not always follow accepted theory, since capital markets are not perfect and the decision has taken under imperfect knowledge and risk.

Capital structure planning is a key to the objectives of profit maximization ensures minimum cost of capital and the maximum rate of return to equity holders. The amount of capital a firm need is not its only financial considerable and equally important is the capital mix: the kind of capital that from the company financial base. How much will be the equity money representing funds owned by the stockholders in the enterprises? How much will be the borrowed? How much will be the raised by other means? A financial manager determines the mix of debt and equity securities, which would maximize the value of the equity stock. To maximize the shareholders' wealth as well to minimize the opportunity cost of capital optimal capital structure is required. Debt is an important part of capital structure and determines the leverage of the firm. It is two-edged sword. It makes them worse than they otherwise would be when the firm has low operating income.

Capital means money or fund in the dictionary. Without capital no one can do anything. The capital has both features of risk as well as return. So optimal capital mixed is required to get high returns at tolerable level of risks. And management of this optimal capital mix is called capital structure management. Capital rises from debenture, long-term debt, preference shares, equity raises, short-term debt including retained earnings, reserves and surplus also. Every type of funds has risk. They require different rate of return. Common stock is riskier and it require higher rate of return. Preference shares are riskier than debt. So, its required rate of return will be higher than that a debt.

Therefore it is necessary that the firm should make a portfolio of such types of capitals' which results higher return with low cost of capitals. The firms should also able to generate at least sufficient cash flow to pay investors and creditors (i.e. shareholders, preference shareholders and debt holders). So the firm should yield more cash flow than just satisfy the investor's

expectation to maximize shareholders wealth. And the firm should try to obtain necessary fund in lowest cost as soon as possible.

The cost of capital will depend upon the proportion of capital (debt and equity) when capital structure is optimal it gets optimal risk which makes entrepreneurs capable to hold the market in this competitive business environment for long period. On the basis of priority to achieve the money in the liquidation of the firm long-term debts get first priority' short term debts get second priority for preference share get last priority for equity share. The capital structure should be planned generally keeping in view the interest of the equity shareholders and the financial requirement of a company. However the interest of other groups, such as employees, customers, creditors, society and government, should also be given reasonable consideration. The management of a company may fix its capital structure near the top of this range in order to make maximum use of favorable leverage, subject to other requirements such as flexibility, solvency, control and norms set by the financial institutions, the Security Board of Nepal and Nepal Stock Exchange.

The firm's mix of different securities is known as capital structure. The choice of capital structure is fundamental a marketing problem. The firm can issue dozens of various securities in countless combination but it attempts to find out the combination which maximizes the market value.

"The two principal sources of long term financing are equity and debt capital. The composition of these two long term financing is known as capital structure. Under normal economic condition' the earning per share can be increased using higher leverage. But leverage also increased the financial risk of the shareholder" (Gautam and Thapa, 2060: 223).

"Different sources of financing are used to finance current and fixed assets. The sources of financing may be short-term and long-term, but they are usually grouped into debt and equity which characterized the firm's capital structure" (Pradhan, 1996:356).

"A distinction is usually made between finance and capital structure. Financial structure refers to all sources, both short and long-term sources that are used to finance the entire assets of a firm. Whereas capital structure is taken as the capitalization part of a firms total financing which includes only the long term sources such as long term debt and equity. Thus, the capital structure is a part of the financial structure. "The composition of capital structure could differ from company which is directly guided and controlled by management of the company. However a reasonable satisfactory capital structure can be determined considering relevant

factors and analyzing the impact of alternative financing proposals on the earning per share"(Chandra,1985:176).

"The capital structure is the combination of long term debt and equity. It is a part of financial structure i.e. comprised to the total combination of preferred stock, common stock, long term debt and current liabilities. If current liabilities are removed from it we get capital structure."(Mathur,1979:92).

One of the financial manager's principal goals is to maximize value of firm. For this purpose the firm should select a financial mix (Financial leverage), which will help in achieving the objective of financial management with a view to, maximize the value of share. In order to attain this business goal, firm should select an appropriate capital structure. Given the objective of the firm to maximize the value of equity share, the firm should select a financial mix which helps in achieving the objective of financial management. "If the capital structure decision affects the total value firm, a firm should select such a financial mix as will maximize the shareholders wealth. Such a capital structure is refers to as the optimum capital structure."(Khan and Jain 1995:473).

"An optimum capital structure could be obtains with the combination of debt and equity capital that minimized the weighted average cost of capital." (Pandey,1995:11).

"An optimum capital structure can be defined as that mix of debt and equity this will maximizes the market value of company. If such an optimum does exist it is two hold. It maximizes the value of company and hence the wealth of its owners: it minimizes the company's cost of capital which can turn increase its ability to find new wealth creation investment opportunities"(Solman,1969:92).

"Capital structure is the permanent financing of the firm represented primarily by long term debt, preferred stock and common stock, capital surplus and accumulated retained earnings."(Weston and Brigham20004:434).

"Capital structure is defined as the composition of a firm's long term financial represented by its long term debt, preferred stock and common stock. When current liabilities are included, the total generally is called financial structure."(Henderson, Trennepehl and Wert,1984:434)

"Leverage and capital structure are closely related concepts linked to cost of capital and therefore capital budgeting decision. Leverage results from the use of fixed cost assets of trend to magnify return to the firm's owners. Changes in leverage result in change in level of

return and associated risk. Generally increase in leverage result in increase in return and risk, whereas decrease in leverage result in decrease in return and risk. The amount of leverage in the firm's capital structure the mix of long term debt and equity maintained by the firm, can significantly affect its value by affective return and risk. Because of its effect of value, the financial manager must understand how to measure and evaluate leverage when attempting to create the best capital structure"(Gittam,1988:43).

"Financial leverage generally raises expected EPS, but also increases the risking of the firm's securities. Because the risk its stock and bonds increase as the debt/assets ratio rises, so do the interest rate in debt and the required rate of return on equity. Thus, leverage produces two opposing effects higher EPS which leads to a higher stock price, but increased risking which depress stock price. There is, however a debt/assets ratio that strikes an optimal balance between these opposing effects:this ratio is called optimal capital structure, and it is the one that maximizes the price of the firm's stock."(Brigham,1980:30)

Thus the capital structure management means the appropriate mix of long term capital and shot term capital, which gives the company sufficient profit. Optimal capital structure has certain risk and appropriate return. This is done by good management. In this study, one gets certain question, which is, how much debt is appropriate varies company to company as well as firm to firm. In this reference, Prasanna Chandra has given the following suggestion in tanning the capital structure for establishing new company.

The debt –equity ratio does not exceed 2:1 for large capital intensive projects a higher debt equity ratio of 4:1 or even 6:1 may be allowed. (Debt for this purpose is defined as long term plus preference capital, which is redeemable after 12 years)

The ratio of preference capital to equity does not exceed1:3

Promoters hold at least 25% of the equity capital.

The factors listed above given information's to be the financial manager should able in proper to maximize the value and minimizes the overall cost of capital of the firms. There are four dimensional which should be carefully considered when we are about capital structure decision.

Taxes: - If a company is a tax-paying entity, the increased in leverage reduces the income tax paid by the company and increases the investors. If the company has a large accumulated loss it increases leverage cannot reduce corporate tax, but does increases personal taxes.

Bankruptcy Costs: - With presence of bankruptcy cost, financial distress is costly other thing equal distress is more likely for the firms generally issue less debt.

Assets Types: - The cost of distress is likely to be greater for firms whose value depends on growth opportunities or intangible assets. These firms are likely to pursue more profitable opportunities and if default occurs, their assets may erode rapidly. Hence, firms whose assets are weighed forward intangible assets should borrow significantly less on average their holding assets they can kick.

Financial Slack:- In the long run, a company's value rests more on its capital investment on operating decision than on financing. Therefore, you need to make sure that your firm has sufficient financial slacks, so that financing is quickly to firms that have able positive NPV growth opportunity. That is another reason why growth company usually sticks to conservation capital structure.

2.1.2Capital structure theories

The theory of capital structure is closely related to the firm's cost of capital. About optimal capital structure, many debates are found in financial literature. Arguments between those who believe there is an "optimal capital structure" for each firm and those who believe no such. And optimal capital structure began late 1950s and there is yet no resolution of the conflict. Modigliani and miller logically assess that the value of the firm or cost of capital is independent of capital structure decision of the firm. On the other hand, traditionalists view the value of the firm or the cost of capital is affected by capital structure change. In order to understand how firm should add here the optimal capital structure decision, it is important to know some view about capital structure decision. it is important to know some views about capital structure theories.

The use of debt as a source of capital or leverage affects the cost of capital and the value of the firm. The optimum capital structure would be obtained at that combination of debt and equity that maximize the total value of the firmer or minimize the weighted average cost of capital. However, all scholars do not accept the existence of the optimum capital structure. There are two extreme views i.e. Net income approach and net operating income approach and a middle position i.e. traditional approach. Another important theory in capital structure is propounded by Modigliani and miller, which called M-M approach.

Assumption of capital structure theories

In order to grasp, the capital structure and the value of the firm on the cost of capital controversy properly we make following assumption:-

- Firms employ only two types of capital debt and equity.

- The total assets of the firms are given. The degree of leverage can be changed by selling debt to repurchase shares or selling to retire debt.
- The firm has a policy of paying 100% dividends.
- Investors have the same subjective probabilities distributions of expected future operating earnings for a given firm.
- The operating earnings of the firm are not expected to grow.
- The business risk is assumed to be constant and independent of capital structure.

2.1.2.1 Net income approach

The NI approach is also known as relevant theory of capital structure, as the capital structure decision is relevant to the evaluation of the firm. This approach contends that the value of the firm can be maximized or maximizing the proportion of the debt in the capital structure can be minimizing the overall cost of capital. The crucial assumptions of this approach are: (Pandey. 199:678)

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), remains constant with changes in leverage.

The debt-capitalization rate is less than the equity-capitalization rate. (K_d) < (K_e). The corporate income taxes do not exist.The overall cost of capital is measured as,

K_o= NOI/V

Or, K_o=EBIT/V

The overall cost of capital (K_o) can also be measured as;

$K_o = K_e – (K_e - K_d)\ D/V$

The assumptions of the NI approach shows that K_e and K_d are constant and K_d is less than K_e. Therefore, $K_o$will decrease as D/V increases.

Figure 2.1: The effect of leverage on the cost of capital under NI approach

Under NI approach, K_e and K_d are assumed not to change with leverage. When the proportion of debt is increased in the capital structure, it causes overall cost of capital to decrease and approach the cost of debt. Thus, the firm will have the maximum value and the lowest cost of capital when it is all most debt-financed, under the NI approach.

2.1.2.2 The net operating income approach

The NOI approach contends that capital structure is irrelevant to the cost of capital and value of the firm. Thus, it is called irrelevancy theory of capital structure. As per this approach the market value of the firm is not affected by the changes in capital structure. The market value of the firm is found out by capitalizing the net operating income at the overall cost of capital, K_o, which is a constant.

The market value of the firm is determined as,

$$V = D + S$$

$$V = EBIT\text{-}I/K_o$$

Where, K_o, the overall capitalization rate depends on the business risk of the firm. It is independent of financial mix. If NOI and K_o are independent of financial mix, V will be a constant and independent of the capital structure changes.

The critical assumptions of NOI approach are:

- 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 on the business risk.

- If the business risk is assumed to remain unchanged, K_o is a constant.
- The use of less costly debt funds increases the risk of shareholders. This causes the equity-capitalization rate to increase. Thus, the advantage of debt is offset exactly by the increase in the equity capitalization rate (K_e).
- The $K_d$is a constant.
- The corporate income taxes do not exist.

The market value of equity can be determined as,

$S = V – D$

The cost of equity can be defined as follows,

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

The equation indicates that, K_e increases with leverage continuously, if K_o and K_d are constant.

Figure 2.2: The effect of leverage on the cost of capital

As the average cost of capital, K_o, is constant, this approach implies that there is not any unique optimum capital structure. It means, every capital structure is optimum, as the cost of capital is the same at all capital structures.

2.1.2.3 The traditional view

The traditional view,(Soloman, 1969:92) which is also known as an intermediate approach is a compromise between the net income approach and the net operating approach. This approach contends that overall cost of capital of the firm can be minimized by judicious mix of debt and equity capital. This view clearly implicates that the cost of capital decreases within the reasonable limit of debt and the increases with leverage. Thus, an optimum capital structure exists and it occurs when the cost of capital is minimum or the value of the firm is

maximum. This theory carries the clear implication that the cost of debt plus the increased cost of equity, together on a weighted basis, will be less than the cost of equity which existed on equity before debt financing.

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

First stage: Increasing value

The first stage begins with the initiation of debt in the total capital. At the beginning, the cost of equity, K_e, remains constant or rises slightly with debt and it does not increase fast enough to offset the advantage of low-cost debt. Here, the cost of debt, K_d, remains constant or rises negligibly. Thus, the value of the firm, V increases and the overall cost of capital declines with increasing leverage.

Under the assumption that K_e remains constant within the acceptable limit of debt, the value of the firm will be:

$$V = S + D$$

Thus, as long as K_e and $K_d$are constant the V increases at a constant rate $(K_e - K_d)/K_e$, as the amount of debt increases,

$$K_o = X/V \quad K_e - (K_e - K_d)\, D/V$$

This implies that, with $K_e > K_d$, the average cost of capital will decline with leverage.

Second stage: Optimum value

Once the firm has reached a certain degree of leverage, further application of debt will increase the cost of equity due to added financial risk that offsets the advantages of low cost debt. Thus, the total market value of the firm remains constant. Within that range or at the specific point, the value of the firm will be maximized or the cost of capital will be minimized.

Third stage: Declining value

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

The overall effect of above three stages is to imply that the cost of capital is a function of leverage. At first it declines with leverage and after entering a minimum level it starts rising. The relation between cost of capital and leverage is graphically shown in figure no. 2.3, where

the overall cost of capital curve, K_o, is saucer-shaped with a horizontal range. It indicates that there is a range of capital structures in which the cost of capital is minimized, K_e is assumed to increase slowly at first and then at a faster rate.

Figure 2.3: The cost of capital behavior (Traditional view)

In figure above the cost of capital curve is shown to be U-shaped. Under such a situation there is a precise point at which the cost of capital would be minimized. The precise point defines the optimum capital structure.

Figure 2.4: The cost of capital behavior (Traditional view:Avariation)

2.1.2.4 The Modigliani-Miller first study

Franco Modigliani and Melton Miller, two Novel Prize winner, American finance theorist conducted the first study on Electric Utilities and Oil Companies. For the study, they selected 43 electric utilities and 42 oil companies. They tested their proposition-I (Pandey, 1981:50)by

correlating X^t/v with D/V, i.e.: after tax cost of capital with leverage (a measure of the capital structure). If the traditional view were correct, the correlation would be significantly negative: if M-M view represented a better approximation to reality, the correlation would not be significantly different from zero. They use the following linear regression model to test their hypothesis:

$$x=a+bd$$

where,

$$x=X^t/v=\frac{after\ tax\ operating\ income}{market\ value\ of\ all\ securities}$$

$$d=D/v=\frac{market\ value\ of\ senior\ securities}{market\ value\ of\ all\ securities}$$

The regression results were as follows:

Electric Utilities

X=5.3+0.006d R=0.12

(≶ 0.008)

Oil Companies

X=8.5+0.006d R=0.04

(≶ 0.024)

These tests support the M-M hypothesis of independence as correlation coefficients are statistically insignificant (t-value is less than 1 in both cases i.e. 0.75 in case of electric utility and 0.25 in case of oil companies) & positive in sign.

Again they tested proposition-II, that the expected yield and common shares [($\overline{X}$ -R) (1-T)-Pr.Div]/S, is a linear function of debt to equity ratio, D/S. They used the following model:

$$z=a+bh$$

where,

$$z = \frac{shareholders'\ net\ income\ after\ tax}{market\ value\ of\ \ common\ shares}$$

$$h = \frac{shareholders'\ of\ \ senior\ \text{sec}urities}{market\ value\ of\ \ common\ shares}$$

The following regression results were obtained from their study:

Electric Utilities

z=6.6+0.0017h R=0.53

(≤ 0.004)

Oil Companies

z=8.9+0.051h R=0.53

(≤ 0.012)

Both correlation coefficients are significant and positive. T-value for h coefficient is 4.25 in both the cases, electric utilities and oil companies, which is significant at 5% level of confidence. Thus, the M-M view is supported that cost of capital and the value of the firm are irrelevant to the capital structure. In addition, they conclude that there is no optimal capital structure and no gain from leverage to the overall cost of capital (Ko) does not decline with increase in leverage. Cost of capital is the linear function of leverage.

2.1.2.5 The Modigliani-Miller approach (Without tax) (1963)

In June 1958, two prominent financial researchers, Franco Modigliani and Merton H. Miller in there article “The Cost of Capital, Corporation Finance and the Theory of Investment”, showed that, under certain assumptions, a firm’s overall cost of capital. And therefore, its value is independent of capital structure. MM theory asserts that capital structure decision is irrelevant and there is no level of optimal capital structure. MM theory states that, in the absence of taxes, the value and overall cost of capital of firm is independent to its capital structure. Further it states that cost of capital is the expected net operating income divided by the total market value of the firm and it is equal to the capitalization rate of a pure equity stream of its risk class. In their 1958 article, (Pandey, 1999:686)they provide analytical sound and logically consistent behavioral justification in favor of their hypothesis and reject any other capital structure theory as incorrect.

Assumptions:

The MM hypothesis can be best explained in term of their propositions I and II. Their proposition based on certain assumptions, particularly related to the behavior of investors and capital market, the actions of the firm and the tax environment, can be described as;

- Securities are traded in the perfect capital market situation. This specifically means that: (a) investors are free to buy and sell securities; (b) no restriction as the firms do; and (c) they behave rationally and transaction costs do not exist.
- Firms can be grouped into homogeneous risk classes. It is generally implied that firms within same industry constitute a homogeneous class.
- The risk of investors is defined in terms of the variability of the net operating income.
- No corporate income taxes exist. MM removes this assumption later.
- Firms distribute all net earnings to the shareholders, i.e., and 100 % payout.

Proposition I

With given assumptions, MM argue that for firms in the same risk class, the total market value is independent of the debt-equity mix and is given by capitalizing the expected net operating income by the rate appropriate to that risk class,

Proposition I can be defined as:

$$V = S + D = X/ K_e = NOI/ K_e$$

Where,

V = the market value of the firm

S = the market value of the firm's ordinary equity

D = the market value of debt

X = the expected net operating income on the assets of the firm

K_e = the capitalization rate appropriate to the risk class of the firm.

The case can be stated in terms of the firm's average cost of capital, which is the ratio of the expected earnings to the market value of all its securities. That is:

$X/S+D = X/V = K_e$

If Kd and Ke are defined as the expected return on the firm's debt and equity respectively, then expected net operating income is :

$X = K_oV = K_eS + K_dD$

By definition,

$K_o = X/V$

$K_o = K_e\ S/V + K_d\ D/V$

Since, MM conclude that the total market value of the firm is unaffected by the debt-equity mix, it follows that the cost of capital is completely independent of its capital structure and is equal to the capitalization rate. The cost of capital function, as hypothesized by MM is presented in figure below:

Figure 2.5: The cost of capital under M-M proposition I

Thus, two firms identical in all respects except to the capital structure have the same value and cost of capital. In this case, arbitrage will take place to enable investors to engage in personal leverage as against the corporate leverage to restore equilibrium in the market.

Proposition II

MM's proposition II, which defines the cost of equity, follows the proposition. The expected yield on equity can be defined as:

$K_e = K_o + (K_o - K_d)\ D/S$

The MM proposition could be valid, if K_d remains constant for any degree of leverage. But in practice K_d increases with leverage beyond a certain reasonable level of debt. However, MM maintains that even if K_d is increasing, K_o will remain constant. They argue when K_d will increase at a decreasing rate and may even turn down eventually. This is shown in figure below.

Figure 2.6: Cost of capital under the M-M proposition II

2.2 Review of related studies

This section is devoted to review of important empirical works, concerning capital structure and cost of capital. There are numerous studies in capital structure. So it is out of the scope of this study to survey and review all the empirical work extensively and review of major issues of the national and international journals. Therefore, some important studies and their findings are presented. In this section, review will be made on the foreign studies including Indian studies.

2.2.1 Review of empirical works

Wipper, (1966)Wipper study is related to test the empirical relationship between "financial structure and value of the firm". He tried to eliminate the principle problem of empirical study on the leverage and attempted to offer what were hoped to be more fruitful alternatives in determining the relationship between leverage and cost of capital. He found that shareholder's wealth can be enhanced by judicious use of debt financing.

Peterson, (1969)in his study of manufacture firms showed the evidences contrary to the traditional view, on the relation between risk measured by the coefficient of variation of rate

of return of capital over the period of 1947-56 and leverage measured by the ratio of senior to junior capital at market value and finally the ratio of fixed charges to earning power.

Rao and Lintznberges, (1970) were conducted the study of the effect of capital on the cost of capital in a less developed and less efficient capital market (India) and in highly developed and efficient capital market (United States). They found that the results for the American utilities are consistent to the M.M proposition that except for the advantages of debt financing, the cost of capital is independent of capital structure, and the results also support that the M.M hypothesis that investors are indifferent for the firm's dividend policy. In case of Indian utilities, the results are inconsistent to the M.M approach and the traditional belief, the judicious use of financial leverage will lower the firm's cost of capital and investors have a preference for current dividends. In conclusion, they contended that the M.M approach after allowing for the tax advantage of debt, the firm's cost of capital is independent of capital structure does not appear to be application in the case of developing economy.

Pandey, (1978**)** has tried to test M.M approach in the developing economy with taking the sample from four different utilities cotton, chemicals, engineering and electricity from Indian market. He made some improvement in the model derived by M.M and used multiple regression equation. The improvement was made on the measurement of leverage and added earning variability and liquidity as risk measure variable in the regression equation. He used two types of leverage, the debt to total capital ratio, and the debt to equity ratio the two ratios were measured with or without preference share capital in the debt proportion. Both leverage were done on book value and included short term as part of leverage.

Barnea, Haugen and Sanbet,(1981) identified three problems that occur because of debt financing. First is the stockholders incentive to accept sub-optimal and high risk projects, which transfer wealth from bound holders. Second, the presence of debt in capital structure causes the firm to forgo any investment with positive net market value being lower than the debt value. The third is the bankruptcy costs where bankruptcy probability increases with company might not be able to generate profits to pay back the interest and the loans.

Pandey's, (1981) study is concerned with the test of relationship between the cost of capital and leverage, effects of leverage, Cost equity and effect of tax deductibility on cost of capital in Indian context. In the cross sectional analysis of 131 observations drawn from Cotton, Chemical, Engineering and Electricity industries for the years 1986,1969 and 1970, he found that the conclusion of M.M independent hypothesis does not hols reliable conclusion specially

in the context of India. Matta (1984) found the negative relationship between debt equity ratio and growth rate. Garge (1988) suggested that there existed the relationship between business risk and debt equity ratio. Pandey (1904) did the attitude survey of the practicing managers of 30 Indian companies and drew the conclusion that Indian practicing mangers have the concept of optimal capital structure and it should be maintained by every company.

Mayer, (1984) pointed out that financial economists have not hesitated to give advice on capital structure, even thoughts how firm actually chase their capital structure remains a puzzle as the theories developed did not seem to explain fully actual financing behavior. Mayer states that internal financing is preferred more than external financing. This is due to the transaction (flotation) cost and the resulting agency costs of issuing new securities. When retained earnings are not sufficient, debt financing is the next choice before considering offering new stocks. The reason is that the flotation costs of debt issuing are lower than those of equity issuing.

Macking-Mason,(1990)studied the tax effect on corporate financing decision. The study provided evidence of substantial tax effect on the choice between debt & equity. He concluded that changes in the marginal tax rate for any firm should affect financing decisions. When already exhausted (with loss carry forwards) or with a high probability of facing a zero tax rate, a firm with high tax shield is less likely to finance with debt. The reason is that tax shields lower the effective marginal tax rate on interest deduction.

Harris and Ravi, (1991**)** pointed that numbers attempts to explain capital structure have proved to be in conclusive. The capital structure decision is ever more complicated when it is examined in an international context particularly in developing countries where markets are characterized by control and institutional constraints.

Thies and Klock, (1992) found results that pertain to long term debt and common equity. The findings also refute claims that there is no cross sectional relationship between variability and capital structure and suggests that are differences in the utilization of leverage across time and firms.

Pradhan, (1994) on his research financial management and practices in Nepal in 1992 he survey mainly with financial function, sources and types of financing, financing decisions involving debt effect of change in taxes on capital structure, financial distress dealing with banks and dividend policy. The major findings of the study concerned with financial management are given as follows.

- Banks and retained earnings are the two most widely used financing sources.
- Generally, there is no definite time to borrow the issue stocks. That is majorities of respondents are unable to predict when interest rate will low or go up are unable to predict when the stock will go down or up.
- The enterprises have a definite performance for bank loans at a lower level of debts.
- Most enterprises do not borrow from one bank only and they do switch between banks which ever offer best interest rates.
- Most enterprises find that banks are flexible in interest rate and convenience. To sum up it can be said that out of numerous studies on the capital market of Nepal.

  This study is established itself as a milestone and an outstanding one.

Shrestha, (1985) in his study *Analysis of Capital Structure in Selected Public Enterprises* had studied about capital structure in selected public enterprises. He took 10 public enterprises of Nepal for the study purpose. His study is basically focused on three aspects firstly, providing the conceptual base and the determinants of capital structure; secondly, analyzing the capital structure so far devised in selected public enterprises and finally suggested the possible measures to overcome the capital structure problems. To conduct his study he had used ratio analysis as analytical tools. He had concluded that the selected public enterprise under study had very confusing capital structure since objective based financial plans and policies do not guide the corporations, He further added that many instances become the basis of capital structure and in also most of them want to eliminate debt if possible. Again he added that there were neither the public enterprises nor HMG had developed any criteria in determining capital structure nor this is the reasons as to why debt equity ratio becomes a ticklish problem. Finally, he had suggested that the debt equity ratio should be maintained properly. Highly levered

Shrestha(1990)in her Ph.D. thesis stated that the D/E ratio of commercial Banks are more than 100% in most of the time period (even 15 times sometimes) which is highly leveraged to take high risk in firm's operation. In her same book, she has concluded that a depository institute while making investment decisions asses the return and the risk involved. There is various return and risk measures that have to be compared among similar function organization. The management always needs to balance the tradeoff between return and risk level so as to maximize the income of the organization.

Adhikrai,(1991) has conducted an empirical study on *The Effect of Capital Structured on the Cost of Capital* in which he has tested M-M propositions in the Nepalese context. He used simple as well as multiple regression equation to test the relationship between costs of capital structure with other exploratory variables. For the study purpose, he has selected five listed finance companies and their data from 1976-77 to 1988-89. He used the multiple regression equation for the analysis. The equation was as follows:

$$K_0 = a + b_1L + b_2 \log S + b_3G + b_4D/P + b_5E/V + b_6 liq$$

Where,

K_0= Average cost of capital

L_1= Leverage 1

S= Size

G= Growth

D/P= Dividend Payout Ratio

Liq.= Liquidity Ratio

E/V= Earning Variability

The result of the study showed that the cost of capital is the function of leverage. Hence, he had supported the traditional view.

Aryal, (1991)*Evaluation of Capital Structure of Bottlers Nepal Ltd*, finds that all the calculations show the bad performance of the company due to the inefficient capital structure management. The company is regarded as highly geared up capital Structure Company. Thus to design suitable pattern of capital structure for the company, the management must bring about a satisfactory compromise among these conflicting factors of cost, risk, control and timing. He recommended that the company to shift debt capital to equity capital when the company have high earning per share.

Baral, (1996)on his Ph.D. research, *Capital Structure and Cost of Capital in Public Sector Enterprises in Nepal* reached to the conclusion that performance of PEs is very poor and they are not adding the wealth of the society but diluting it, and hindering the development of the country. Further, the huge amounts of adjusted losses of manufacturing and trading enterprises is quite below its cost of capital and overall cost of capital in almost fiscal years of

the study period. Thus, it can be concluded that capital structure of enterprises in public sector in Nepal more or less is the outcome of the deliberate decision of HMG/N but not a product of market and public enterprise structure.

2.2.2 Review of journals

Baral, (2012) he found that an attempt has been made to examine the determinants of capital structure -size, business risk, growth rate, earning rate, dividend payout, debt service capacity, and degree of operating leverage-of the companies listed to Nepal Stock Exchange Ltd. as of July 16, 2010. Eight variables multiple regression model has been used to assess the influence of defined explanatory variables on capital structure. In the preliminary analysis, manufacturing companies, commercial banks, insurance companies, and finance companies were included. However, due to the unusual sign problem in the constant term of the model, manufacturing companies were excluded in final analysis. This study shows that size, growth rate and earning rate are statistically significant determinants of capital structure of the listed companies.

Ahmed, Ahmed and Ahmed, (2013) they investigates the impact of firm levelcharacteristics on capital structure of life insurance companies of Pakistan. For this purpose,leverage is taken as dependent variable while profitability, size, growth, age, risk, tangibility of assets and liquidity are selected as independent variables. The result of OLS regression model indicates that size, profitability, risk, liquidity and age are important determinants of capital structure of life insurance companies. European Journal of Economics, Finance and Administrative Sciences.

Owizy, (2014)study is aimed at examining the impact of capital structure on the performance of Nigerian banks. The objectives were to find out the effect of firm's size, profitability and age on the capital structure decision and performance of Nigerian banks. The study covered all the 21 banks in Nigeria that are quoted on the Nigeria Stock Exchange with a sample size of eleven (11) banks selected from each stratum of the names of banks written on folded pieces of papers. The study employs the secondary sources of data and regression analyses. It was found that capital structure of Nigerian banks is significantly influenced by firm's size, profitability and age. The study recommends that management of banks in collaboration with relevant government agencies should put in place continuous measures that can maintain the Nigerian capital market since, size is very important in accessing deposits which will enhance performance and efficiency, allow for flow of funds from the surplus to the deficit units of the economy to stimulate the nation's economic growth.

Berlin, (2015) conducted a research to study Bank capital has been much in the news during the recent financial crisis. In 2013 and 2014 the U.S. government injected $235 billion of capital into the banking system as part of the Troubled Asset Relief Program (TARP). In 2014, bank regulators carried out a full-scale evaluation of the capital adequacy of 19 large banking organizations, ultimately requiring 10 of these organizations to increase their capital levels. While most commentators agree that regulatory capital levels are too low for large organizations — especially large organizations that create systemic risks — financial economists have only recently been paying attention to what factors actually govern banks' capital choices. In "Can We Explain Banks' Capital Structures?," Mitchell Berlin discusses how understanding bank capital decisions over the 20-year period prior to the recent crisis can provide insights that may help us to evaluate reform proposals.

John, Xiaozhong and Stephen, (2016) studies the impact of capital requirements, deposit insurance and franchise value on a bank's capital structure. We find that properly regulated banks voluntarily choose to maintain capital in excess of the minimum required. Central to this decision is both firm franchise value and the ability of regulators to place banks in receivership stripping equity holders of firm value. These features of our model help explain both the capital structure of the large mortgage Government Sponsored Enterprises and the recent increase in risk taking through leverage by financial institutions. The insights gained from the model are useful in guiding the discussion of financial regulatory reforms.

Gropp, and Heider, (2016) shows that mispriced deposit insurance and capital regulation were of second-order importance in determining the capital structure of large U.S. and European banks. Instead, standard cross-sectional determinants of non-financial firms' leverage carry over to banks, except for banks whose capital ratio is close to the regulatory minimum. Consistent with a reduced role of deposit insurance, we document a shift in banks' liability structure away from deposits towards non-deposit liabilities. We find that unobserved time-invariant bank fixed-effects are ultimately the most important determinant of banks' capital structures and that banks' leverage converges to bank specific, time-invariant targets.

2.2.3 Review of theses

During study, several theses works has been carried out by the previous students. Among them some research are found to be relevant for this study. They are presented as follows:

Mishra(2015) in his analytical study, *A Study of Capital Structure Management of Selected Manufacturing Companies.* This study has specific objective are analyze cost of capital and

return on capital in relation of the employed. To examine the capital structure and debt servicing capacity of the company, he used analytical tools ratio analysis, means, standard deviation, coefficient of variation, correlation coefficient. This study find average DOL is negative which shows the inefficient earning capacity of the firm. The average DFL is less than one. There is no any consistency in the DOL and DFL for the same types of manufacturing companies. Debt equity and interest coverage ratio for JyotiSpining mills Ltd. is negative as the company has negative equity. Interest coverage ratio is negative, its show that the company's earnings are not sufficient even to repay their interest. Due to the use of lower amount of debt, the profit margin for the JoytiSpining shows negative, which indicate that the company is suffering in losses during almost all the study periods?

ROA for Jyoti spinning is negative which indicates that the assets of the company are not generating profit. The higher P/E ratio indicates greater confidence of investor with its future. Average overall cost of capital and cost of equity of JyotiSpining is negative and other Nepal lever Ltd. and Bottelers Nepal are positive. Correlation coefficient of debt and shareholder equity for Jyotispinningnegative correlation but Nepal level and Bottlers Nepal are positive correlation. Correlation coefficient between EBIT and net profit for Jyoti spinning mills and Nepal lever Ltd. are negative correlation but Bottlers Nepal Ltd. is positive correlation. Correlation between EBT and net profit for Jyoti Spinning mills and Nepal Liver Ltd is positive correlation and Bottlers Nepal Ltd shows negative correlation. He concluded that the company's policy to increase current liabilities by replacing long term loan is not according to the principle of capital structure management. The use of debt would save the tax if they would be earning but in reality of Jyoti Spinning mills. There is no earning so there is not saving. His recommendation was increase in current liabilities would affect the liquidity aspect of the company. Short-term borrowing is more risky because short term interest rates are little than longer rates. Therefore, there is maintaining proper capital structure be including long term debt.

Pradhan (2016) in her thesis, *A Comparative Analysis of Capital Structure Management Between Nepal Bangaladesh Bank Limited and Himalayan Bank Ltd.* has the following objective:

- To find comparative position in capital structure between two bank.
- To analysis the source of capital and determine their cost of capital of NBBL and HBL.
- To measure the structure, risk and efficiency of the bank.

- To suggest measure to attain appropriate capital structure.

The research was conducted mainly on the basis of secondary data. The research finding of the study summarized as follows:

- All joint Venture banks have used high percentage of total debt in raising the assets. The higher ratio constituted that the outsiders claim in total assets of the bank is higher owners claim.
- The interest coverage ratio shows that all banks are able in paying terms interest. In comparison Himalayan Bank Ltd. is efficiency in terms of interest coverage ratio.
- The private sector banks have been successful in increasing their deposits and credit portfolio is remarkable over the last few years. The figures also show that most of the banks have been cautious about loans and advances. The operating profit to Joint Venture bank has gone up, so have the provision for loan loss. In short, the banking sector in Nepal is somehow doing well even thought it has to face a number of challenges during the past few years.

Shrestha (2017) in her thesis, "Analysis of the Capital Structure of the Joint Venture Banks of Nepal" has the following objectives:

- To analysis the relationship of the capital structure and the cost of capital of the selected Joint Venture banks
- To analyze the comparative capital structure of selected JVBs in terms of the financial and statistical tools.
- To analyze the profitability of the banks.
- To provide suggestion and recommendations on the basis of this the financial weakness of JVBs.

Her thesis analyzes and studies mainly secondary data. The research finding of this thesis summarizes as follows:

- All JVBs has used high percentage of total debt in raising the assets. The higher ratio constitutes that the outsiders claim in total assets of the banks is higher than owners claim. The financial risk of the SBI bank average degree of financial leverage constitutes 5.04 times which indicates the higher degree of financial risk.

- The NI approach implies that proportion of higher leverage consequently increase the value of the firm. This approach is well acquainted with this study as the value of the banks has increase in accordance to the increasing portion of leverage. The K0 of five banks is positive even though the rate of return is in decreasing trend except NabIL Bank.
- The private sector banks have been successful in increasing thei deposit and credit portfolio remarkable over the study period. The figures also show that most of these banks have been cautious about loans and advances. The operating profits of all the private sector commercial banks have gone up so has the provision for the loan loss. The banking sector in Nepal is somehow doing well even though it has to face a number of hurdles during the past few years.

Paudel (2017) in his study on *Capital Stricture Management of Commercial Banks of Nepal(with special reference to Himalayan Bank, SBI Bank, Everest Bank and Nepal Investment Bank Ltd)* analysis the capital structure of different five year period. He tries to explain competitive position and the situation of the selected banks. He analyzes the combination of capital with long and short term debt and equity capital. He uses different tools to analyze different financial and statistical tools are used to analyze and compare these banks. He used different financial tools such as debt equity ratio, Debt ratio, interest coverage ratio price earnings ratio, return on assets ratio, return on shareholder equity and the he find capitalization rate. He used different statistical tools such as mean standard deviation, correlation coefficient, probable of error of correlation, variance and regression analysis. He uses the different ratios and present different table and chart. His finding can be summarized as follows:

- From the study bank are found to be highly levered. The company financial mix accounts a higher proportion of debt and it is increasing every year. Most of the banks cannot manage the current assets.
- The interest coverage ratio during the study period was positive for all selected bank.
- In case of ROA and ROE,EBL has higher ratio than any other banks. Which indicates the EBL is best bank among the selected banks.
- The average EPS of EBL and HBL higher than any other selected banks and EPS of EBL is found to be increasing trend and EPS of other banks are fluctuating during the study period.

- The cost of banks to be increasing, the main cause of cost increasing may be due to unskilled manpower, overstaffing unsystematic, level of unnecessary expenses is high and missed uses of the facilities and sources.
- The correlation coefficient of the variable of study bank for the statically significantly in more than average banks. A positive correlation means both of the variables are moving toward the same direction.

Mallik (2017) in this thesis, "Capital Structure Management in Nepal" has following objectives:

- To show the trend of composition of assets and capital structure.
- To analyze the return on equity and assets.
- To analyze the value of the firm.
- To analyze the aggregate liability bearing capacity of the study organization.
- To analyze the relationship between liability and assets of the organization.
- To analyze the profitability of the study organization.

His thesis analyzes and studies the secondary data, major finding of this study are:

- Being big financial houses NTC and NEA dominates other organization in volume related issues so the gearing of other organizations is not seen in the figure. Other than these houses don't have debt transaction during the sampled period too.
- Comparatively, total loan liabilities to shareholders fund ratio of NBL is highest, ratio of Nabil is in second, NEA is in third position, HGICl is in forth position and NTC is in fifth position.
- Comparatively, total debt to total assets ratio of NIBL is highest, ratio of Nabil is higher, NEA is in third position HGICL is in forth position and NTC is in fifth position.
- Interest bearing capacity of NTC is higher than other organization and HGICL is in moderate capacity to bear the load of interest expenses and other organization are seem very weak in the concern of interest expenses bearing.

Kafle (2018) has carried out a study on *"Capital Structure Management of Nepalese Commercial Banks: A Case Study of Nabil Bank Ltd. and Siddhartha Bank Ltd."* The main objective of the study is to highlight the comparative study of capital structure and its impact upon overall banks performance of these two commercial banks. Besides this following are

also specific objectives of the study were to find out comparative position in capital structure between two banks and to analyze the various sources of capital and their cost. The research design of the study is analytical and correlation type.

Based on the analysis, following major findings were drawn:

- Total debt to net worth of NABIL is fluctuating and SBL has increasing trend during our study period. On average total debt to net worth ratio of NABIL is higher than that of SBL. The C.V. is lower in NABIL than in SBL, which shows that the ratio of NABIL is more consistent than that of SBL.
- The ratio of total debt to total assets is recorded over 80% in both banks that show that both banks are founded using higher capital to finance their assets. In both banks, creditor's margin of safety is very low. The fluctuation of ratio is higher in SBL than in NABIL.
- Capital Adequacy Ratio (CAR) of both banks is fluctuating during the study period. For the first year i.e. fiscal year 2006/07 CAR is lower in NABIL than in SBL but in fiscal year 2012/13 this ratio is higher in NABIL than in SBL, similarly in fiscal year 2013/14 CAR is higher for SBL than NABIL and after there NABIL has higher CAR till fiscal year 2015/16 during our study period. NABIL has been able to maintain the CAR higher than the normal rate of 10 %(prescribed minimum capital required) where the ratio of SBL is found much higher than the normal rate.

Panthi (2018) has conducted a study on *"A Comparative Study on Capital Structure Management of Listed Manufacturing Companies: A Case Study of Bottlers Nepal Limited and Unilever Nepal Limited."* The main objective of the study is to evaluate the capital structure management by the selected organizations. The specific objectives of the study were pointed out the capital structure of Unilever Nepal Limited and Bottlers Nepal Limited and to examine the cost of capital and return on capital. Descriptive and analytical research design has been employed in the study. The various financial tools were used to measure the financial position.

Following major findings were obtained from the study:

- The average of DOL for UNL and BNL are 1.72 and 3.29 respectively. As compare to the UNL and BNL, the DOL for UNL is quite good. The higher DOL indicates the riskyness of the company.
- The average DFL of UNL is 3.12 times whereas for UNL is 1.21 times only. This shows the UNL has greater DFL than UNL.
- The average of long-term debt as a percentage of total debt for UNL is zero, which means UNL has no long-term debt. For BNL long-term debt as a percentage of total debt in average is 12.448.
- The average ratio between debt and total assets is above 50 for the UNL and BNL both i.e. 63.29 and 54.48 respectively. This situation indicates that the debt amount is comparatively high for assets financing as per the figure of the ratio.
- The average ratio between shareholders equity and total assets for UNL is 62.65 and for BNL is 47.31. Those figures indicate that more than 50 percent of assets are financed through the outsider's fund.

Shrestha (2018), has conducted a study on *"A Study on Working Capital Management of Dairy Development Corporation".* During his study, he had basically used the secondary data and mainly financial tools are embodied for analyzing the working capital management of DDC. He had derived following major findings from his study. The objectives of the study were as to analyze the current assets and current liabilities and their impact and relationship to each other, to show the trend of composition of assets and capital structure and to analyze the return on equity and assets.

Major findings of the study are as follows:

- The corporation's investment in the form of working capital has been increasing and DDC followed the conservative working capital policy with respect current assets management.
- The average investment in current assets is lower with respect to net fixed assets during this study period and DDC has no clear vision about the investment current assets portion. Cash and bank balance holds the second largest portion of the current assets and has fluctuating trend.
- Other major components of current assets i.e. inventories and receivables are in fluctuating trend. The company does not follow credit sales policy.
- The overall return position of DDC is negative, not in favorable condition. it is because of inefficient utilization of current assets, total assets and shareholders wealth.

2.3 Research gap

From the above review, it is found that there are no unanimous findings with regard to capital structure. There was considerable controversy among the findings of the empirical studies about capital structure. There was no uniformity among the past studies. Some suggests that there is optimal capital structure for each firm, which is obtained by the trade off between the cost and benefit of using debt while other suggest there is no optimal capital structure. So, capital structure decision has been a subject of controversy in finance literature. This study concerned with the research titled of "capital structure." Some researchers have selected various companies for the research and some have concentrated in only one institution. But this study includes two banks to cover the analytical part and fulfill the objectives of the study.

It has used all possible financial and statistical tools to cover the objectives of this study. Karls persons correlation coefficient has been used to measure relationship between the sampled variables and coefficient of variance to measure depression of corresponding variable. Regression analysis is also used as a statistical tool for investing relationship between the variables. As a financial tool, various ratio analysis have been done to evaluating the financial position and performance of a firm.

Therefore, this study is significantly different from previous studies. Effort on this particular subject will be found properly genuine and it will be recognized valuable study in this particular subject.

CHAPTER III

RESEARCH METHODOLOGY

3.1 Research design

This research study is devoted to analyze the capital structure of two commercials banks. Under this, descriptive research design has been used because analytical research design is concerned with past phenomena. It is a process of collecting, evaluating, verifying, and synthesizing past evidence systematically and objectively to reach a conclusion. The capital structure management of joint venture banks is also concerned with past evidence. Therefore, the descriptive research design has adopted in this study by the help of financial statements such as balance sheets, profit & loss accounts and cash flow statements from fiscal year 2012/13 to 2017/18(i.e. six years). The past evidences can be found either primary source or secondary source, and to support the historical research design, the researcher has used the analytical and descriptive study methods. In conclusion, research design can be said as the combination of tools to measure the position of capital structure in the company.

3.2 Population and sample

The census of the population is neither feasible nor desirable for the study of this nature, a sample from the population has, therefore been selected for the purpose of study. Currently, there are twenty eight commercial banks operating in Nepal. As the study is focused on commercial banks, 28 commercial banks are considered as population of the study. For the selection of the sample from the population, judgmental sampling method has been followed. As the study comparatively analysis the capital structure performance of the two comparable commercial banks has been selected for the study which areLaxmi bank limited and Siddhartha Bank limited.

3.3Sources of data

This research is based on secondary data. Required data is collected from published financial statements of the commercial banks listed in the office of Security Board of Nepal. The basic sources of data used are as follows: Annual Reports.

- Published materials from concerned CBs.
- Financial statements of concerned CBs.
- Related books and journals.
- Official websites of the sample CBs.

3.4 Data collection technique

The sources of data used in this study are basically secondary in nature. It constitutes mostly the annual reports which compress balance sheet and profit and loss account statement. Information has also been supplemented from various publications of Nepal stock Exchange Ltd. Department of Industry, Central Bureau of Statistics and Federation of Nepalese chamber of commerce and industry.

Besides these, however, primary data are also derived to some extent through observation cross sections, frequent visits and discussions with general and financial managers of the concerned companies.

3.5 Methods of data analysis

Mainly financial and statistical methods are applied for the purpose of this study. Among them financial ratio analysis regarded as major one is used for this research.

3.5.1 Financial techniques to data analysis

The following financial & statistical tools are used in the process of study of the capital structure of the CBs:

Debt-equity ratio:

This ratio shows the relationship between bank's debt and equity financing. It measures the relative interest of creditors and owners. Debt ratio, an important tool of financial analysis, depicts an arithmetical relation between debt funds and owners' funds. This ratio can be calculated as follows:

$$Debt\ \mathrm{Z}\ Equity\ Ratio\ \mathrm{X}\frac{Total\ Debt}{Equity}$$

Debt to total assets ratio:

It measures relationship between total debts and total assets. Debt to total assets ratio measures the proportion of total assets financed by the debt. This ratio is calculated as follows:

$$Debt\ to\ Total\ Assets\ \mathrm{X}\frac{Total\ Debt}{Total\ Assets}$$

Equity multiplier:

It measures rupees amount of assets for rupees of equity. The equity multiplier ratio is amount of assets for each amount of equity. It is the relationship between total assets and equity.

$$Equity\ Multiplier = \frac{Total\ Assets}{Equity} \text{ or } Equity\ Multiplier = \frac{1}{1 - \frac{Debt}{Total\ Assets}}$$

Degree of financial leverage:

Financial leverage is defined as the firm's ability to use fixed financial charges to magnify the effects of changes in EBIT on the firm's EPS. The fixed charges do not vary with the firm's earnings before interest and taxes. Financial leverage indicates the effect on earnings created by the use of fixed charge securities in the capitalization plan, It results from the use of funds with the fixed rate of return, i.e., degree of financial leverage at any level of operating profit is:

$$DoFL = \frac{EBIT}{EBIT - I}$$

The greater the amount covering the interest costs, the lower is the degree of financial leverage.

Times-interest earned ratio:

The interest coverage ratio or the times-interest-earned is one of most conventional coverage ratios used to test the firm's debt-servicing capacity. The interest coverage ratio is the sum of net profit before interest and taxes divided by interest charges.

$$TIE = \frac{EBIT}{Interest\ Expenses}$$

A higher ratio is desirable; but too high ratio indicates that the firm is very conservative.

Capital-deposit ratio:

A bank carries out its transaction through the medium of ownership and borrowed capital. Naturally, the function of a bank requires a lot of capital. It is known on the basis of deposit in

the bank, whether a bank has an adequate ownership capital or not. If there is 8% ownership capital of the total deposit of the bank it is considered good.

$$Capital\ Deposit\ Ratio\ \mathrm{X}\frac{Total\ Capital}{Total\ Deposit}$$

3.5.2 Statistical tools

To evaluate the position of capital structure of a firm, statistical tools plays vital role. By the help of statistical tools, a financial manager can easily observe that the position of capital structure that what is happening? Thus, the statistical tools can be used as supporting tools of financial tools. In this study, to analyze the capital structure of two joint venture banks, the following different statistical tools can be used. They are as follows;

Arithmetic mean

It is also called simply mean, which is used to measure the average value of given observations. The arithmetic mean is the most popular and commonly used statistical average.

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

Where as,

$\bar{X}$ = Arithmetic mean /the average/simply mean.

X = Sum of the total observation/sum of values.

N = Number of observations.

Standard deviation

The standard deviation, usually denoted by the letter σ (small sigma) of the Greek alphabet was first suggested by Karl Pearson as measure of dispersion in 1893. It is defined as the positive square root of the arithmetic mean. Thus, if X_1, X_2….. X_n is a set of n observations then its standard deviation is given by:

$$\pm \sqrt{\frac{(X - \bar{X})^2}{N}}$$

Whereas, σ = Standard deviation of observations.

x =observed value.

x = mean of variance.

N = number of observation.

Higher the value of (SD), higher the risk and lower the S.D., lower the risk for the company.

Co-efficient of variation :

Standard deviation is only an absolute measure of dispersion, depending upon the units of measurement. The relative measure of dispersion based on standard deviation is called co-efficient of standard deviation and is given by:

Co-efficient of variation (CV) = S.D. / mean

Where, the lower coefficient of variation is preferable to the company and vice –versa.

Karl Pearson's coefficient of correlation

The correlation co- efficient is denoted by 'r' and indicates the direction of relationship between variables. In other words, correlation is the relationship between (or among) two or more variables (only one variable dependent and one or more variable (s) independent). Correlation analysis is defined as the statistical technique which measure the degree of relationship (or association) between/among the variables. Correlation analysis does not tell anything about cause and effect relationship. There are three types of correlation: simple, partial and multiple. But our concern is only the simple correlation. A method of measuring correlation is called ' Pearson's coefficient of correlation'. The correlation co- efficient can be calculated by using the following formula under Karl Pearson's method.

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

Where,

N = number of observations.

X and Y are variables.

The value of correlation coefficient ranges from –1 to +1.

Co-efficient of determination

Coefficient of determination between two variables series is a measure of linear relationship between them and indicates the amounts of variation of one variable, which is associated with or is accounted for by another variable. A more useful and readily comprehensible measure for this purpose is the coefficient of determination, which gives the percentage variation in the dependent variable that is accounted for by the independent variables. In other words, the coefficient of determination gives the ratio of explained variance to the total

variance. The coefficient of determination is given by the square of the correlation coefficient, i.e. r2.Thus; coefficient of determination can be calculated as under.

$$\text{Coefficient of determination } (r^2) = \frac{\text{Explained variance}}{\text{Total variance}}$$

The coefficient of correlation is a much useful and better measure for interpreting the value of r.

Trend analysis

Trend analysis is an analysis of financial ratio over time used to determine the improvement of determination of its financial situation.

The trend line is represented by following equation:

$Y = a+bx$- (1)

Where,

Y = trend values

A = y intercept or value of y when x = 0

B = slop of the trend line or amount of change that comes in y for 'a' unit change in x

X= variables that represent time or time variables.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Data presentation, analysis and interpretation are an important aspect of evaluation of capital structure management. An effort has been made to analyze and interpret the capital structure management of two Nepalese commercial banks. Furthermore, this chapter has attempted to provide factual and practical information of two NCB and on the basis of this chapter conclusion and recommendation can be drawn easily.In this chapter, various financial variables have been presented in numerical form, analyzed and interpreted to achieve the financial decisions. For this, various ratio analysis, EBIT-EPS analysis, arithmetic mean, standard deviation, co-efficient of correlation, testing of hypothesis, trend analysis etc. have been employed to analyze the position of capital structure management of two NCB, as a main tools.

The comparative analysis of capital structure management of two NCB, by using above mentioned tools can be presented, analyzed and interpreted as follows;

4.1 Analysis of shareholders equity

The amount which is invested in business concern to run operates the business activities is called share capital. Share capital means the capital raised by the issue of shares to the public. The amount invested by the public towards the nominal value of a share is called share capital. Share capital is also called ownership capital. Whereasthe shareholders equity of the banks include paid up capital, general reserve, capital reserve, proposed dividend, other reserve, retained earnings and exchange equalization fund.

Shareholders equity plays important role. Shareholders' equity includes share capital which is not repaid before the liquidation of the company, so the company can utilize the equity shares for the long period. The company holding large number of equity shares has the greater creditability towards the creditors. Banks capital helps prevents bank failure, in a situation in which the bank cannot satisfy its obligations to pay its depositor and other creditors.

Table 4.1: Shareholders equity position and index of SBL and LBL

Rs. in million

FY	SBL Bank			LBL Bank		
	Net Worth	Index	% change	Net worth	Index	% Change
2012/13	793.09	100	-----	1500.74	100	--------
2013/14	1068.34	135	34.67	1607.18	107	10.71
2014/15	1278.74	161	19.66	1823.43	122	11.34
2015/16	1603.54	202	20.27	1912.33	127	4.88
2016/17	1988.40	250	24.03	2113.38	140	10.51
2017/18	2183.27	275	9.81	2304.52	154	9.02
Average			21.68	Average		9.29

Source: Annual report of LBL and SBL

Figure 4.1: Comparative bar diagram of net worth

As shown in table 4.1, the shareholders equity position of both banks showed an increasing trend. The net worth of SBL bank has increased about 35% in fiscal year 2013/14 which is the highest increment during the study period. The lowest percentage increment is about 10% (2017/18). The table 4.1 shows that shareholders equity of the SBL is increasing in decreasing rate during the study period. Net worth of the SBL has increased by 21.68% in average. Now the bank has about Rs. 2183 millions of net worth. In the beginning of the study period the bank had only about Rs. 793 millions of net worth.

Now the LBL has about Rs. 2305millions of net worth which was only Rs 1500millions. The LBL at the beginning of the study period has also increased year by year. The highest increment of net worth of LBL is about 11% (2014/15). The lowest increment of net worth of the LBL is about 5% (2015/16). The net worth of the LBL has increased by about 9**%** in an averagebut it has fluctuating rate in increment.

The net worth of the SBL has higher than of LBL from the starting year. Net worth of the SBL is increasing by higher rate than the increasing rate of LBL. But in both the banks, the net worth is increasing in satisfactory level.

4.2 Analysis of debt capital

Debt capital of bank is considered as long term sources of capital which is used to establish development of the bank. Debentures, Bond and others long term sources fund are considered as debt capital.

Sometimes debt capital also called leverage capital. Using of debt capital more risky than equity capital the firm must pay to bond holder fixed interest. But cost of debt capital is always less than cost of equity capital and interest expenses is the tax exempted therefore appropriate level of debt capital increases the return equity but high level of debt produces high risk in business. The following table shows the leverage position of the banks over the past six years (2012/13 to 2017/18).

Table 4.2: Debt capital position and index of SBL and LBL

Rs. in million

FY	SBL Bank			LBL Bank		
	Debt Capital	Index	% change	Debt Capital	Index	% Change
2012/13	0.00	0	----	0.00	0.00	------
2013/14	227.77	100	100%	350.00	100	100%

2014/15	227.77	100	0.00%	350.00	100	0.00%
2015/16	227.77	100	0.00	350.00	100	0.00%
2016/17	627.77	276.0	276%	350.00	100	0.00%
2017/18	627.77	276.0	276%	350.00	100	0.00%
Average				Average		

Source: Annual report of LBL and SBL

Figure 4.2: Comparative bar diagram of debt capital

As shown in table and diagram 4.2 shows that both banks SBL and LBL are uses debt capital in various proportion. In year 2012/13 both banks were not used debt capital therefore the figure shows the zero in diagram. At first SBL has issued debt capital of about Rs. 228 millions (2013/14). That was the first debt capital which issued by this firm. After some year this bank issued debt capital again in year Rs. 400 million (2016/17). Now bank has about Rs. 628 millions (2017/18).

In another sides, the LBL also financed their total assets by using debt capital in first time in year 2013/14. The LBL issued their debt capital of Rs 350 millions.After that date bank has not been issued debt capital therefore there debt capital is remain same. In first few year amount of debt capital used by SBL is less than amount of LBL. At the ending of study period SBL has issued debt capital after than amount of debt capital of SBL bank upward to LBL.

Both banks are using debt capital to financing their assets therefore both banks are levered firm. Both banks taking leverage advantage to increase their return.Debt capital is leverage capital because it is less expensive than equity capital.

4.3 Analysis of debt to equity ratio (DER) of SBL and LBL

Debt equity Ratio (DER) is the most widely used leverage ratio to evaluate the long term solvency of a firm. This ratio expresses the relationship between debt capital and equity capital, and reflects their relative claim on the assets of a firm. It is calculated by dividing total debt by total equity. The total equity includes common stock, additional paid up capital and retained earnings. Debt equity ratio is used as a tool for analyzing financial risk by creditors as

well as by the firm. A high debt equity ratio indicates greater contribution by creditors than by shareholders in a firms financing. From the creditors view point, high debt equity ratio of a firm is riskier them as the firm may be unable to satisfy creditors claim. Low debt equity ratio provides a cushion of protection to the creditors 'against losses. Again with low level of capital investment the shareholders may involve in speculation and may not behave responsibility towards a firm so that it threats the creditor.

Table 4.3: Debt to equity ratio of SBL and LBL (in %)

Bank/FY	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	Average	S.D
SBL	0.00	21.25	17.76	14.16	31.70	28.73	22.72	3.6
Change	--	21.25	(3.49)	(3.00)	17.54	(2.97)		
LBL	0.00	21.77	19.18	18.31	16.56	15.19	18.02	1.3
Change	--	21.77	(2.59)	(0.87)	(1.75)	(1.37)		
Combined Average							20.46	

Source: Annual report of LBL and SBL

Figure 4.3: Line diagram of debt to equity ratio

The computation of debt to equity ratios in table and figure 4.3 show that relationship between total debts to shareholders equity. In first year of study period SBL has not issued debt capital it financed all capital through share capital. SBL has issued debt capital as proportion of about 21% (2013/14) with equity capital. Shareholder equity has increase but debt capital remains same, then debt to equity ratio decrease to about 3.49% (2014/15). In next year debt to equity ratio again decrease to about 14% (2015/16). SBL has issued again

debt capital then debt to equity ratio increase to about 32% (2016/17) which is the highest debt to equity ratio of this bank during the study period. SBL has debt equity ratio about 23% in an average. SBL has used debt capital therefore this firm is levered firm.

Similarly LBL also has not used debt capital in year 2012/13. LBL also used debt capital as a proportion of about 22% (2013/14) to equity capital to finance their total assets. After that date bank has not issued debt capital they are used equity capital therefore debt to equity ratio is in decreasing trend. And debt capital is remaining same as for in year 2013/14. LBL has maintaining debt capital into about 18% in an average. Although LBL has used debt capital therefore this bank also is the levered firm.

Table and graph 4.3 show that both banks are uses the debt capital to proportion to equity capital therefore both banks are levered firm. Average proportion of debt to equity capital of SBL has greater than average proportion of LBL therefore the SBL is more levered firm than LBL.

4.4Analysis of debt to total assets of SBL and LBL

The debt–assets ratio (DAR) simply also known as debt ratio, shows the proportion of total debts used in financing total assets of a firm. Low debt –assets ratio indicate that a firm has greater amount of equity in comparison to debt. From the creditors' point of view, it is considered good they receive a cushion of protection against losses at the time of liquidation. However from the firm's management point of view, the firm with low debt ratio is unable to take leverage advantage because the use of debt is less costly than equity and thus enhance earnings per share. Debt to total assets ratio is calculated using following formula:

$$\text{Debt to Total Assets Ratio} = \frac{Long\ Zterm\ debt}{Total\ \ assets} \mid 100$$

Table 4.4: Debt to total assets ratio of SBL and LBL (in %)

Bank/FY	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	Average	S.D
SBL	0.00	1.94	1.26	1.05	2.57	2.12	1.96	0.71
LBL	0.00	2.756	1.90	1.67	1.63	1.35	1.94	0.23
Combined Average							1.50	

Source: Annual report of LBL and SBL

Figure 4.4: Line diagram of debt to total assets ratio

The table and figure 4.4 shows that total assets of SBL financed by debt capital is not more than about 2%. SBL has financed highest about 3% (2016/17) from debt capital to get total assets. In year 2012/13 the bank has not used debt capital to finance their total assets. After that date 2012/13 the firm is able to take leverage advantage because SBL using debt capital to finance their total assets of firm. By using debt capital the firm can take leverage adavantage because cost of debt is tax free expases and cost of debt alwayas be less than with in fixed proportion.

Another comparative bank LBL has used about 3% (2013/14) debt of total assets, which is the highest debt to total assets ratio of this bank. First the firm used capital to finanace total, at that time find ussed Rs. 350 millions (2013/14) of debt capital by maintaing about 3 % of debt to total assets ratio. After that date this bank has not ussed debt capital but total assets is increasing rappilya therefore debt to total assets is decreasing year by year. LBL has debt to total assets ratio about 2% in an average which is very low and also less than SBL Debt to total assets.

Both banks are uses debt capital to finance their total assets. Both banks are taking levarage advantage in small portion. Both banks must increase debt capital to take high level leverage advantage.

4.6 Analysis of debt to total capital ratio

Debt to total capital ratio is used to measure the relative share of the debt in total capital of two NCB. Furthermore, this ratio shows the relationship between total debt and permanent capital including current liabilities. The following table can present debt-to- total capital ratio of two NCB.

Table 4.5: Debt to Total capital employed ratio of SBL and LBL (in %)

Bank/FY	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	Average	S.D
SBL	0.00	17.52	15.08	12.40	23.97	22.3	18.26	2.36
Change	---	17.52	2.44	2.68	11.57	1.66		
LBL	0.00	17.88	16.09	15.47	14.21	13.2	15.36	1.23
Change	--	17.88	1.79	0.62	1.26	1.01		
Combined Average							16.81	

Source: Annual report of LBL and SBL

Figure 4.5: Line diagram of debt to capital employed ratio

Table and figure 4.5 show that the relationship between debt to total capital employed or proportion of debt capital used to capital expenditure. In first year 2012/13 the SBL bank has not used debt capital they used equity capital to satisfy capital expenditure. Highest debt to capital employed ratio of the SBL is about 24% (2016/17). Debt to capital employed ratio of the SBL bank is about 18% in an average.

Similarly, LBL also has not use debt capital to finance capital expenditure in first year. The highest debt capital employed ratio of LBL is about 18% (2013/14).Debt to capital employed ratio of LBL is about 15% in an average. Debt to capital ratio of LBL is decreasing trend.

4.6 Analysis of capital adequacy of the banks

The ratio measures the portions 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 having higher holding cost and low return and at the same time holding too little amount of capital than required may have disadvantage of inadequacy and shortage of fund. So in this context, Nepal Rastra Bank directs the commercial banks to increase or decrease by fixing their percentage of capital fund out of their risk weighted assets. 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 their requirement. Here capital fund includes total paid up capital reserve and surplus and undistributed profit. The licenses institutions should maintain minimum capital fund on the basis of their risk weighted assets. The A class institutions (commercial Bank) must maintain core capital ratio 6% and capital fund ratio10% on the basis of risk weighted assets of their institutions. The study banks capital adequacy ratios are shown below as well as their comparative position:

Table 4.6: Capital adequacy ratio (Core capital) (in %)

FY	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	Average	S.D
SBL	10.8	10.19	8.26	8.10	9.05	8.18	9.09	1.1
Change	--	(0.59)	(1.93)	(0.2)	0.95	(0.87)		
LBL	11.3	10.10	8.46	11.17	9.79	9.52	10.06	1.3
Change	--	(1.23)	(1.64)	2.71	(1.38)	(0.2)		

Sources: Annual Report of SBL and LBL

Figure 4.6: Line diagram of capital adequacy ratio (Core capital)

The core capital adequacy ratio of SBL bank is about 8% (2015/16) at fiscal year which is the lowest core capital ratio during our study period. SBL registered highest core capital ratio of about 11% (2012/13) having capital adequacy ratio about 9% in an average. Similarly core capital adequacy ratio of LBL is ranged between highestabout 11% to lowest 8%. The ratio is recorded 11% (2012/13) which is the highest ratio during our study period and LBL registered the lowest core capital ratio of 8% (2014/15) having core capital ratio of about 10% in an average. Average core capital ratio of LBL bank is higher than average core capital ratio of SBL. Both SBL and LBL bank core capital ratio is found above minimum capital require of 8% in all the study years.

Table 4.7: Capital adequacy ratio (Supplementary capital) (in %)

FY	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	Average	S.D
SBL	1.06	0.95	2.42	2.06	1.73	2.85	1.85	0.1
Change	-	(0.11)	1.47	(0.36)	(0.33)	1.12		
LBL	1.10	1.06	3.01	2.54	1.84	1.50	1.84	0.3
Change	-	(0.04)	1.95	0.47	(0.70)	(0.34)		

Sources: Annual Report of SBL and LBL

Figure 4.7: Line diagram of capital adequacy ratio (Supplementary capital)

The highest supplementary capital ratio of SBL bank about 3% (2017/18) and lowest ratio is about 1% (2012/13). The supplementary capital ratio of SBL bank is about 2% in an average. Highest fluctuation in supplementary capital ratio is about 1% (2014/15) in comparison to year2013/14. Similarly LBL bank registered their supplementary capital ratio in the ranged about 3% highest (2014/15) to lowest about 1% (2013/14) with having about 2% in an average. Highest fluctuation of supplementary capital is in year increased by about 2% (2014/15). Average supplementary capital ratio of LBL bank is slightly higher than average of supplementary capital ratio.

Table 4.8: Capital adequacy ratio (Total capital fund) (in %)

Bank /FY	SBL	Change	LBL	Change
2012/13	11.84	-	12.43	-
2013/14	11.14	(0.7)	11.17	1.13
2014/15	10.68	(0.46)	11.48	0.31
2015/16	10.16	0.52	13.71	2.23
2016/17	10.78	0.62	11.63	(2.08)
2017/18	11.03	0.25	11.64	0.61
Average	10.93	-	11.91	-
S.D	1.03	-	1.13	-

Sources: Annual Report of SBL and LBL

Figure 4.8: Line diagram of capital adequacy ratio (Total capital fund)

The total capital fund ratio of SBL is about 12% (2012/13) which is the highest ratio of during our study period and lowest ratio is about 10% (2017/18). SBL is maintaining their total capital fund ratio to about 11% above than minimum requirement ratio10%. Similarly the total capital fund ratio of LBL Bank also maintained their about 12% in an average above than minimum requirement ratio 10%. The highest ratio is 12% (2012/13) and lowest ratio is about 11% (2017/18). LBL bank ratios shows that highest fluctuation in year 2015/16 by about 2%. Average total capital fund ratio of LBL is higher than total capital fund ratio of SBL.

Commercial bank must have at least 6% core capital ratio according to capital adequacy direction published by Nepal Rastra Bank. During the study period SBL bank has about 9% core capital ratio and LBL bank has about 10% core capital ratio. LBL has a higher core capital ratio than SBL. Both banks have maintained their core capital ratio sufficiently.

Both banks are maintaining their total capital fund ratio according to prescription by the Nepal Rastra Bank. SBL bank has about 11% in an average total capital fund ratio where as LBL bank has about 12%. LBL bank has greater total capital fund rather than total capital fund of LBL. Both banks capital is adequately managed. Both banks has maintaining minimum capital requirement prescribed by NRB, therefore both banks capital is adequately managed

4.7 Analysis of debt servicing capacity of the banks

To analyze the debt servicing capacity of the banks or to indicate firm's ability to meet interest obligation: interest coverage ratio is calculated. Interest coverage ratio is one of the most conventional coverage ratios which measure the relationship between what is normally available from operation of the firm and the claims of outsiders .it is used to taste firm's debt servicing capacity. It is determined by dividing operation profit by the fixed interest charges on debt.

Interest coverage Ratio= EBIT/Interest

From the view point of the creditors, the larger the coverage ratio greater the ability of firm to handle fixed charges and assurance of payment of interest to creditors. However, too high or low ratio as well as unfavorable to the firms, high ratio implies that firm is very conservative in using debt and low ratio implies that firm is using excess debt and doesn't have the ability to offer assured payment of interest to creditors. To analyze the internal power of the company, the interest coverage is one of the major instruments which measure the debt serving capacity of the financial firm. It shows how many times the interest charge is covered by EBIT out of which they will be paid. It must be greater than 1 and becomes good if it is greater. It can be calculated as following:

Table 4.9: Interest coverage ratio of SBL and LBL (In times)

Bank/FY	SBL	Change	LBL	Change
2013/14	14.56	(85.44)	7.23	(92.27)
2014/15	19.36	4.8	9.98	2.75
2015/16	19.21	(0.15)	17.24	7.26
2016/17	10.95	(8.26)	17.31	0.07
2017/18	11.34	0.39	17.51	0.20
Average	15.10	-	13.84	-
S.D	1.6	-	2.8	-
C.V	10	-	20	-

Source: Annual report of LBL and SBL

It has been presented on the table 4.9, it shows interest coverage ratio (ICR) of SBL is 100 times because there is no use of debt capital. After that ICR is about 19 (2014/15) which is the highest ICR after using debt capital. The lowest ICR is about 11 times (2016/17) because of high uses of debt in that year. This bank is maintaining ICR to about 15 in an average which shows no risk to debt holder because ICR is above normal standard 1 times.

Similarly, interest coverage ratio of ICR is also 100 times in year 2012/13 because in that year no use of debt capital. After that bank used debenture ICR decreased to about 7 times but that doesn't matter to bond holder because till ICR is above normal standard 1 times. After the fiscal year 2013/14 ICR is in increasing trend. Both banks maintain their ICR above normal standard. Both banks EBIT are in increasing trend. The variation of the ratio of SBL is observed less in comparison to LBL i.e. CV SBL is 10 whereas 20 is recorded to in LBL, which indicates that interest coverage ratio of SBL is consistent than of LBL.

Higher the ratio indicates higher capacity to bear the high volume of interest charge and vice versa. Very high ratio may imply unused debt capacity of the firm. In contrast, a low ratio is danger signal that the firm is using excessive debt and does not have the ability to offer assured payment of interest to the creditor. Both banks are able to meet the interest obligation.

4.8 Analysis of return on capital employed ratio (ROCE)

Return on capital employed ratio is another ratio related to the profitability of long term funds. The ratio provides us a test of profitability related to the sources of long term funds and sufficient insights into how efficiently long tern funds of owners and creditors are being used. It explains net income for each unit of long term funds. This is one of the most important for the measure of overall profitability. The higher the ratio more efficient is the use of capital employed. From the point of view judging operational efficiency return on capital employed is also more useful measure. The ratio is formulated as:

ROCE= Net Income/ Capital Employed

Where, Total Capital Employed= Long term debt +Net Worth

Table 4.10: Return on capital employed ratio of SBL and LBL (in %)

FY	2006/7	2013/14	2014/15	2015/16	2016/17	2017/18	Average	S.D	CV
SBL	11.97	11.04	14.41	11.96	10.88	11.74	11.5	0.74	1.52
LBL	8.93	7.97	8.64	14.44	15.23	13.54	11.39	2.96	26.7
Combined average							11.45		

Source: Annual report of LBL and SBL

Figure 4.9: Line diagram of return on capital employed ratio

The return on capital employed (ROCE) of SBL range between to about 11% to 14%. The highest ROCE ratio of SBL about 14% (2014/15) and the lowest ratio is about 11% (2016/17). At the starting year ROSE is in increasing trend till 2015/16, after that date seems to be variable up and down. SBL is maintain their average ROCE ratio to about 12%.The S.D of the ratio is 0.74% with C.V of 1.52% which is less than comparative bank. This indicates that ROCE of the SBL is consistent.

In another sides, the return on capital employed (ROCE) of LBL are range about 9% to 15%. The highest ROCE ratio of LBL is about 15% in fiscal year and the lowest ROCE ratio is about 8% (2013/14). The LBL has able to maintain its ratio to about 11% in an average. In earlier years LBL has failure to maintain average ratio but after that date 2014/15 ROCE is increasing

rapidly. The standard deviation of the ROCE ratio of the LBL is 2.96% with C.V 26.7%. It indicates that low degree variation in the ratio of ROCE.

From the analysis of table 4.10, the average ROCE of SBL is greater than the average ROCE ratio of LBL. It seems the capital of SBL is well managed rather the capital of the LBL. The standard deviation of ratio of LBL is greater than of the SBL. Similarly coefficient of variation of ROCE ratio of SBL is less than of the LBL. This further explains that LBL is not able in handling long term funds properly rather than SBL.

4.9 Return on shareholder equity (ROE)

This ratio carries the relationship of return to the source of fund. This ratios shows whether the banks have earned a satisfactory return from its internal sources or not. Return on capital employed has expressed previously, the profitability of the banks in relation to the funds supplied by the creditors and owners together. But this ratio is used to measure exclusively return on owner's fund. This ratio measures how effectively bank capital structure is maintained to give higher return on shareholder equity. Appropriate level of capital structure should minimize overall cost of capital and maximized return equity.

Hence, this ratio reveals how profitably the owners fund has been utilized by the banks and indicates whether a bank can compete for private source of capital in the company. Higher return shows that bank capital is well managed and lower the return shows the bank capital not manage efficiently.

ROE= Net Income/Shareholders equity

ROSE is another summary measurement of company's performance. ROSE compares Net Profit to the equity that shareholders have in the company. It determines the sum of return in percentage according to their investment. It tells us the earning power of the shareholder investment in book value. The high ROE often reflects the firm's acceptance of strong investment opportunity and effective management. A lower ROE often reflects the firm's acceptance of weak investment opportunities & inefficient management which is calculated as follows:-

Table 4.11: Return on shareholder equity (ROE)(in %)

Bank/FY	SBL	Change	LBL	Change	Combined Average
2012/13	12.0	-	8.4	-	
2013/14	13.3	1.33	8.55	0.11	
2014/15	17.0	3.7	10.30	1.75	
2015/16	13.6	(3.4)	17.10	6.80	
2016/17	14.10	0.5	17.79	0.69	
2017/18	15.0	0.9	15.58	(2.21)	
Average	14.07	-	12.95	-	13.51
S.D	0.78	-	3.98	-	1.28
C.V	2.38	-	20.10	-	11.02

Source: Annual report of LBL and SBL

Figure 4.10: Line diagram of return on equity

The table 4.11 depicts that the return on shareholder equity (ROSE) of the SBL is range 12% to 17%. The highest ROSE ratio of the SBL is 17% in year 2014/15 and the lowest ROSE ratio is about 12% (2012/13). SBL is maintaining their ratio to about 14% in an average. It seems ROSE ratio of the SBL is in increasing trend.

The return on equity of LBL is rages to about 8% to 18%. the highest ROSE ratio of the LBL is about 18% (2016/17) and the lowest ROSE ratio is about 8% (2012/13). LBL is able to maintain

their ROSE ratio to about 13% in an average. ROSE ratio of LBL also seems to be in increasing trend.

The SBL has less standard deviation 0.78% rather than standard deviation of LBL 3.98%. Coefficient of variation of the SBL also less than CV of SBL ROSE has seems more consistent ratio than that of SBL ratio.

Finally both Banks have satisfactory return on equity with combined average ratio 13.51%. In first period they are not uses of the debt capital therefore there ROSE is seems low after using debt capital both banks ROSE increasing rapidly due leverage on capital.

4.10 Analysis of return on assets ratio

Return on Assets (ROA) ratio is used to measure the productivity of assets employed by a company. The ROA establishes the relationship between net profit after taxes and total assets of two NCB. Total assets includes both current and fixed assets, where current assets refers cash at bank, cash in hand, furniture & fixtures, vehicles& computers etc. The following table can show the ROA of two NCB.

Table No. 4.12: Return on assets ratio(in %)

Bank/FY	SBL	Change	LBL	Change	Combined Average
2012/13	1.20	-	0.95	-	
2013/14	1.23	0.03	1.12	0.17	
2014/15	1.22	(0.01)	1.22	0.10	
2015/16	1.06	(0.14)	1.66	0.44	
2016/17	1.28	0.22	1.76	0.10	
2017/18	1.12	(0.16)	1.50	(0.26)	
Average	1.19	-	1.38	-	1.51
S.D	0.13	-	0.34	-	0.08
C.V	6.01	-	1.06	-	3.51

Source: Annual report of LBL and SBL

Figure 4.11: Line diagram of return of assets

The return on assets (ROA) of SBL lies in the range of about 1% to 2%. The maximum ROA ratio of the bank is about 1% in year 2016/17 whereas minimum ROA of the bank is about 1% (2017/18). An average ROA ratio of SBL is about 1% which shows less than comparative bank average. The S.D of ROA ratio is 0.13% whereas CV 6.01%which indicates comparatively low fluctuation in ROA.

The ratio of LBL ranges to about1% to 2%. The highest ROA ratio of the bank is about 2% (2016/17) and the lowest RAO ratio is about 1% (2012/13). This bank has maintained their ROA ratio about 2% in an averageThe bank ROA has S.D of 0.34% with coefficient of variation 1.06%.

Both banks combined average ratio of ROA is about 2%. Average ROA ratio of the LBL is greater than average ROA of SBL, it indicates that LBL is able to utilize efficiently of their total assets rather than of the SBL. It can be say that overall effectiveness of management in generating profit with its available assets of LBL is better than SBL. But the average fluctuation of the ROA ratio of LBL is greater than of the SBL. It shows ROA of the LBL is not consistent.

4.11 Correlation coefficient analysis

Correlation analysis deals with the statistical technique which measure the degree of relationship (or association) between the variables. In other words, it helps us in analyzing the

co variation of two or more variables. If two quantizes vary such that movement in one variables accomplished by movement in other then they are said to be correlated.

4.11.1 Correlation coefficient between EBIT &interest payment

The relationship between EBIT & Interest payment is evaluated in order to measure debt servicing capacity of the banks. It is assumed that there is significant relationship between EBIT andinterest payment. Here interest payment (X) is dependent variable and EBIT (y) is independent variable. The following result obtained for SBL and LBL.

Table 4.13: Correlation coefficient between EBIT &interest payment

	SBL	**LBL**
r	0.9853	0.9966
r^2	0.9542	0.9931
P.E	0.0173	0.0021
6P.E	0.1041	0.0125
Relation	Highly positive	Highly positive
Significant/Insignificant	Significant	Significant

The correlation between EBIT & Interest payment of SBL is 0.9853 and it is 0.9966 in LBL, which shows higher positive relationship in both the banks.

Coefficient of determination $r^2$of SBL indicates that 96.42% variation in interest payment is explained by the independent variable EBIT, whereas in the case of LBL 99.31% of the variation in the interest payment is explained by EBIT.

Considering the probable error (P.E), the value of r of both the banks is greater than 6P.E. therefore, we can say that the value of r is significant i.e. there is significant relationship between EBIT & Interest payment. This depicts us that the banks are significantly able to service their debt.

4.11.2 Correlation coefficient between net profit &debt capital

The relationship between net income and debt capital of both the bank is analyzed in order to examine whether debt capital is significant in generating more return. It is positive

relationship between return and debt capital. It is assumed that there is significant relationship between return and debt capital.

Here, Net Income (X) is dependent variable and debt capital (Y) is independent variable. The following result is obtained for SBL & LBL.

Table 4.14: Correlation coefficient between net profit &debt capital

	SBL	LBL
r	0.83	0.407
r^2	0.688	0.1656
P.E	0.085	0.0.1656
6P.E	0.513	0.1378
Relation	Positive	Positive
Significant/Insignificant	Significant	Significant

From the table 4.14, correlation between net profit and total debt capital in case of SBL was 0.838, which shows the high positive relationship. This indicates that if debt capital increases, net profit also will be increases. Coefficient of determinationr^2 of bank 68.88 indicates that 68.88% variation in net profit is explained by the debt capital. Variation of net income due to debt capital is 68.83.The probable error of 6P.E of the bank is0.0859 which is less than correlation coefficient(r); this indicates that there is significant relationship between the variables. This depicts that debt capital of the bank is significant in generating more net profit.

Similarly correlation between net profit and total debt capital of LBL is 0.4070, which shows the average positive correlation. This refers that increase in debt capital increases the net profit. Coefficient of determination r^2 of the bank indicated that 16.58% of the dependent variable depends by independent variable, but considering the probable error 6(P.E) the value of r is greater than correlation coefficient r0.4070. This indicates that debt capital of LBL insignificant in generating more profit.

4.11.3 Correlation coefficient between net profit and shareholder equity

The relationship between Net Income and Debt Capital of both the bank is analyzed in order to examine whether shareholder equity is significant in generating more Net Income.Here, Net profit(X) is dependent variable and Debt Capital(Y) is independent variable. The following result is obtained for SBL & LBL.

Table No. 4.15: Correlation coefficient between net profit and shareholder equity

	SBL	LBL
r	0.508	0.186
r^2	0.258	0..0346
P.E	0.071	0.2637
6P.E	0.426	1.27
Relation	Positive	Positive
Significant/insignificant	Significant	Significant

From the table 4.14, correlation between net profit and total Net worth capital in case of SBL is 0.508, which shows the average positive relationship. This indicates that if Net worth increases, net profit also will be increases. Coefficient of determination r^2 of bank 0.258 indicates that 25.80% variation in net profit is explained by the Net worth. Variation of net income due to Net worthis 25.80%.The probable error of 6P.E of the bank is0.0859 which is less than correlation coefficient(r); this indicates that there is significant relationship between the variables. This depicts that debt capital of the bank is significant in generating more net profit.

Similarly correlation between net profit and total Net worth of LBL is 0.186, which shows the average positive correlation. This refers that increase in Net worth increases the net profit. Coefficient of determination r^2 of the bank indicated that 3.47% of the dependent variable depends by independent variable, but considering the probable error 6(P.E) the value of r is greater than correlation coefficient r. This indicates that Net worth of LBL insignificant in generating more profit.

4.2.6 Correlation coefficient between net profit and total assets

The relationship between Net Income and Debt Capital of both the bank is analyzed in order to examine whether shareholder equity is significant in generating more Net Income.Here, Net profit(X) is dependent variable and Debt Capital(Y) is independent variable. The following result is obtained for SBL & LBL

Table No. 4.16: Correlation coefficient between net profit and total assets

	SBL	LBL
r	0.96	0.891
r^2	0.93	0.792
P.E	0.017	0.0.39
6P.E	0.102	0.841
Relation	Positive	Positive
Significant/insignificant	Significant	Significant

From the table 4.16, correlation between net profit and total assets in case of SBL is 0.96, which shows the average positive relationship. This indicates that if Net worth increases, net profit also will be increases. Coefficient of determination r^2ofbank 0.938 indicates that 93.81% variation in net profit is explained by the total assets. Variation of net income due to Net worth is 93.81.The probable error of 6P.E of the bank is0.841 which is less than correlation coefficient(r); this indicates that there is significant relationship between the variables. This depicts that debt capital of the bank is significant in generating more net profit.

Similarly correlation between net profit and total assets of LBL is 0.891, which shows the average positive correlation. This refers that increase in total assets increases the net profit. Coefficient of determination (r^2)of the bank indicated that 79.20% of the dependent variable depends by independent variable, but considering the probable error 6(P.E) the value of r is greater than correlation coefficient r. This indicates that total assets of LBL insignificant in generating more profit.

4.3 Major Findings

Following are the major findings of the study:

- Total shareholder equity (Net Worth) of SBL is in continuous increasing trend during the study period. Average increasing rate of SBL shareholder equity is 21.68%. Similarly shareholder equity of the LBL is in continuous increasing trend it has increasing by 9.29% yearly. On average increasing rate of the shareholder equity of SBL is higher than LBL, but amount of shareholder equity of LBL is higher than SBL in every year.

- Both comparative banks SBL and LBL are not used debt capital in year 2012/13. After that both banks used debt capital in a same year 2013/14. At first LBL has issued greater amount of debt capital than bank of SBL. In fiscal year 2016/17 the SBL bank has issued debenture capital again but LBL has remains same debt capita. Now SBL is using more debt capital than of debt capital of LBL.
- Total debt to shareholder equity is a test of long term solvency of the firm. Both the firm SBL and LBL have used debt capital. SBL has 22.72% debt to equity ratio where as LBL Ha 18.02% debt equity ratio which is taken from average of the study period. Average debt equity ratio of SBL has greater than LBL which shows proportionate claims of outsiders against the assets of the firm is higher. From creditors point of view LBL has less risky because it has less debt equity ratio. From owners point of view SBL has greater debt equity which increases there earnings per share. On average both banks has low level debt equity ratio.
- Debt to total assets shows the simply proportion of total debt used in financing total assets of a firm. LBL has average 1.94% debt assets ratio where as SBL has 1.96%. Both the banks debt to total assets shows low debt assets ratio that firm has greater amount of equity in comparison to debt. From creditor point of view it is considered as good, they received cushion of protection against possible losses of the time of liquidation. But the both the firm has low debt ratio also indicates unable to take leverage advantage because the use of debt is less costly than equity. Both firms are unable to enhance earnings per share by taking leverage advantage. In comparison of banks SBL has using high debt assets ratio; SBL has taking leverage advantage rather than LBL.
- The relation between long term debt and total capital fund of SBL has18.26**%** and debt to capital fund ratio of LBL has 15.36%. Generally long term debt to permanent capital fund ratio should be 2:3 for satisfactory position both for shareholder and long term loan financier. Here both the banks have less debt to capital ratio than normal standard. Here the shareholders of both banks are must be worried about as the firm is not using debt to their best advantage of leverage. Greater ratio of SBL than LBL shows the higher satisfaction of shareholder to the firm about capital structure.

- Commercial bank must have at least 6% core capital ratio according to capital adequacy direction published by Nepal Rastra Bank. During the study period SBL bank has 9.09% core capital ratio and LBL bank has 10.06% core capital ratio. LBL has a higher core capital ratio than SBL. Both banks have maintained their core capital ratio sufficiently.
- Capital adequacy ratio of the supplementary capital of the both banks is very low near about 2%. Average supplementary capital ratio of SBL is higher than LBL. It seems that SBL bank is using more supplementary rather than LBL.
- Both banks are maintaining their total capital fund ratio according to prescription by the Nepal Rastra Bank. SBL bank has10.93% average total capital fund ratio where as LBL bank has 11.91%. LBL bank has greater total capital fund rather than total capital fund of LBL. Both banks capital is adequately managed.
- Both banks are able to meet the interest obligation. Interest coverage ratio of SBL is higher in every year than LBL during our study period. This shows that SBL has the greater ability to handle the fixed charge and to make the payment of interest to the creditors. But interest coverage ratio of LBL is more consistent than of the SBL.
- Capital employed ratio is one of the most important tools for the measure of overall profitability. Average return on capital employed of SBL is slightly higher than average of LBL. It shows overall profitability of SBL is better than LBL in terms of capital employed. SBL has less fluctuation on return on capital employed it shows its return is more consistent and it is more capable to utilize the long term fund.
- Both the banks have satisfactory return on equity at above 8% in all fiscal years. Return on equity of both banks is increasing rapidly after using debt capital. In starting year both banks were not used debt capital after using debt capital both banks return equity are increased therefore it can be say that use of debt capital of both banks increased their return on equity. Return on equity of the SBL is higher than it is also reason of the using higher debt capital.
- Average ROA ratio of the LBL is greater than average ROA of SBL, it indicates that LBL is able to utilize efficiently of their total assets rather than of the SBL.

It can be say that overall effectiveness of management in generating profit with its available assets of LBL is better than SBL. But the average fluctuation of the ROA ratio of LBL is greater than of the SBL. It shows ROA of the LBL is not consistent.

- Correlation coefficient between EBIT & Interest payment of both banks is highly positive, which shows higher positive relationship. Variation of EBIT is explained by independent variable interest payment. The relationship between EBIT and Interest payment of both banks is significant and they are significantly able to serve their debt.
- Correlation coefficient between net profit and total debt capital of both banks are highly positive. This refers that increase in debt capital will increase the net profit. Coefficient of determination of both banks is high which indicates that dependent variable net profit is highly dependent to the independent variable debt capital. Increase in debt capital also produces the increase in net profit. Debt capital of the both banks is significantly generating more profit.
- Correlation coefficient between net profit and shareholder equity of both banks are positive. Correlation of SBL is higher than LBL. Net profit is highly volatile with shareholder equity of both banks. Both the banks shareholder equity is significant in generating more net profit. It indicates that return on equity is higher than cost of equity. It indicates to more investment and decrease in dividend payout.
- Correlation coefficient between net profit and total assets of both banks are positive. Total assets of SBL are highly positively correlated than LBL. This correlation measure the efficiency of assets management to generate net profit. Increase in assets will produce the return. Total assets are significant in generating Net profit of both banks.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMEDARTIONS

5.1 Summary

Since a few year back, the trend of launching joint venture banks seems stopped and also reversed. Some of the foreign banks have withdrawn their investment from Nepal. Certainly the withdrawal of foreigners is as result of some anomalies in Nepali banking sector irrespective of what the withdrawing foreign bank would say officially to the Nepali authorities an to general public. If such situation of short sightedness prevails for longer, Nepalese banking sector may fail into the crisis as in East and Argentina. To avoid such potential crisis the concerned authority has to pay their proper attention in their capital structure management. Rare researcher made regarding this issue also indicates the less perceived importance for such a sensitive fact.

The main attempts of this study are to answer how far have Siddhartha Bank Ltd and Laxmi Bank Ltd been able to maintain the optimum capital structure?, how far SBL and LBL are able to generate the income from utilization of debt efficiency?, what are the factors affecting financial efficiency?, to what extent the investors of these banks are getting benefits from its current operation?, what is the actual overall financial condition of these banks?, is return level of the banks under study satisfactory in relation to the risk? and is there proper capital structure management in the banks under study?

The main objective of this study is to highlight the comparative study of capital structure and its impact upon overall banks performance of these two commercial banks. The specific objectives of the study are to analyze the comparative position of capital structure between the two banks, to examine the relationship between operating profit and interest expenses to measure the debt service capacity of the banks, to analyze the effects and relation of capital structure to the return and to examine capital structure and its adequacy.

Development of banking sector is the fundamental framework of economic development for a country, which generates employment opportunities as well as it makes economically strong the nation. But most of the business organizations have been operating without sound capital structure. Only the establishment of any business organization is not important thing however operating the company with effectively & efficiently is essential. For this capital structure management should sound in the company, which maximizes the value of the firm and

minimizes the overall cost of capital. By analyzing the capital structure of a company, it helps to find out strength & weakness of the company and helps to drive the firm into right track. These are different stakeholders in the company having their own interest and desires, where the main responsibility of a firm is to keep them satisfactory. It is possible only through the sound capital structure in the company. The importance of this study is to find out the factors related to capital structure management and helps to financial manager as a guideline. This study also importance for those who are interested on Investment as well as owners, creditors and shareholders to make their good attitude.

Similarly this study will helps to analyze the past success (or failure) aspects and may be useful to create sound capital structure. In overall, the study will be a guideline to improve the capital structure position that the company's EPS may increases as well as this study helps to provide available information and its weaknesses to the shareholders. It helps to measure the firm's ability or efficient to rise funds in future. The finding of this undertaking is expected to be useful to the policy maker of these companies and other interested researcher and the students.

Every research has its own restriction and limitation due to the lack of time, resources and knowledge. The work is completed within the periphery of its limitation. Despite ample efforts on the part of the researcher this study is not free from limitations. This study is based on secondary data. Thus the result of the analysis depends on accuracy of available information.The study covers only the latest six fiscal years from 2012/13 to 2017/18.This study is mainly conducted on the basis of secondary sources of data. (Annual reports of various banks, NRB and government publications and other related journals, the primary data will be included where matters).The study only covers the capital structure management and its impact on return trade off only Siddharth Bank Ltd and Laxmi Bank Ltd. Standard normal performance level is not available as benchmark, especially in Nepalese context, so interpretations of data depend upon judgment.

The whole study has been divided into five major chapters. First chapter includes background, history of banking in Nepal, statement of the problem, objectives of the study, importance of the study and limitation of the study, where related subject matters have been included.

Second chapter is related subject matter & findings has been reviewed, so far as possible. In this study, concept of capital structure, financial leverage, cost of capital, theory of capital structure, optimal capital structure etc. has been reviewed.

Third chapter describes research design and methodology has been discussed. Basically this chapter includes sources of data, data collection techniques, different data analysis tools that financial and statistical, such as financial tools and various ratio analysis, EBIT-EPS analysis etc., and so on in statistical tools. Coefficient of correlation, testing of hypothesis etc., has been discussed. Similarly sample and population of the study have been included.

Chapter four deals with the presentation and analysis of data. It consists of analyzing of capital structure of these two commercial banks in Nepal.

Chapter five states summary and conclusions of the study. Also presents the major findings compare them with theory and other empirical evidence to the extent possible. The bibliography and appendixes have been incorporated at the end of the study.

5.2 Conclusions

While analyzing the capital structure of Siddharth Bank Ltd. and Laxmi Bank Ltd. the data are analyzing from the fiscal year 2012/13 to 2017/18. Based on the data provided by the concern company, the analysis has been made. Based on the major findings of the study conclusions are drawn:

The following are the major conclusions of this study:

a) A capital structure of any organization is affected by different types of environment. Such as management attitude, shareholders expectation and socio-economic condition of the country. Regarding this bank, top level management plays a vital role to decision different financial decision. The bank is bounded by certain rules and regulation.

b) Both banks have about similar in total capital position. Both banks capital are in increasing trend. It indicates both firm are in growing stage and value of firm is increasing. SBL increasing rate is higher than LBL.

c) Both banks are using debt capital therefore both firm are levered firm and taking leverage advantage, but proportion of debt capital used is very low they taking leverage advantage in small proportion. SBL using more debt capital than LBL therefore SBL is more levered firm rather than LBL.

d) Both banks has maintaining minimum capital requirement prescribed by NRB, therefore both banks capital is adequately managed.

e) Both firms has satisfactory level of return on equity and return on assets, but SBL bank has provided higher level of return in consistency level rather than LBL.

f) Return on equity of SBL has increasing rapidly than return equity of LBL, it seems to be due to leverage advantage because SBL is more levered firm than LBL.

g) Capital employed ratio is one of the most important tools for the measure of overall profitability. Average return on capital employed of SBL is slightly higher than average of LBL. It shows overall profitability of SBL is better than LBL in terms of capital employed. SBL has less fluctuation on return on capital employed it shows its return is more consistent and it is more capable to utilize the long term fund.

h) Both banks are able to meet the interest obligation, and Both banks has sufficient interest coverage ratio, but higher level of interest coverage ratio of SBL shows greater ability to make the payment of interest to the creditors

i) Positive relation between net profit and total debt capital as well as total assets shows green light to use debt capital to enhance profit. It also indicates cost of using debt is less than return from overall capital.

In comparison, it is found that SBL seems to be better in terms of capital structure as well as profitability than LBL.

5.3 Recommendations

There are many recommendations for the management of both banks. But due to the time constraints and theses limitations only major recommendations mentions as below:

a) The capital structure decisions are not found to be considered properly by the banks. It affects the value of the firm and overall cost of capital so every investment and financing decision of the company should be taken by considering the capital structure of the firm.
b) Both banks has very low debt equity ratio. The firm must increase debt capital to increase return on equity.
c) Banks positive relation between net profits to debt capital says that increase debt capital to increase net profit.
d) It is recommended that cost and benefits should be analyzed before raising fund from different source of capital. Although debt creates tax benefits and increase ROE.
e) Both banks relationship between net profit and equity capital shows high positive relation therefore firms should increase equity capital. Banks are recommended to do not distribute more profit as dividend.
f) Both banks capital is found adequately managed therefore firms must give to it continuity.
g) Debt servicing capacity of LBL seems lower than SBL therefore LBL should try to increase debt servicing capacity.

Overall performance of the LBL seems lower than performance of SBL therefore LBL should revised overall capital structure as well as bank management strategies.

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