

CHAPTER-I

INTRODUCTION

1.1 Background Information

Economic development is the foundation development of any country. Economic development is supported by the financial infrastructure of that country. Financial institution constitutes an important part of the financial infrastructure. The main function of the bank is the collecting of idle funds and mobilizes them to productive sector causing overall economic development, which finally leads to national development of the country. Bank pools the funds through deposit and mobilize them to productive sector in the form of loans and advances. Bank is the financial institution which deals with money by accepting various types of deposits, disbursing loans and rendering several of financial services. It is the intermediary between the deficit and surplus of financial sources.

It cannot be denied that the issue of development rests upon the mobilization of resources and the bank deals in process channelizing the available resources in the needed sectors. Commercial bank collects deposits from the public and the largest portion of a commercial bank reflects deposits constitutes a major portion of the liabilities and the loans and advances constitutes a major portion of the assets side. Similarly, the profit of the bank depends upon the spreads that it enjoys between the interest it receives from the borrowers and that to be paid to the depositors. An average bank generates about 70% of its revenue through its lending. The return that the bank enjoys of deposit mobilization through loans and advances is very attractive but they do not come free of cost and free of risk. There is risk in lending. The bank faces a number of risks like interest rate risk, liquidity risk, credit risk, borrower risks etc. such in excessive form had led many banks to go bankrupt in number of countries.

Economic development of any country can be achieved only through a balanced growth in the field of trade, commerce, industry and agriculture. It has equally self-evidenced that the development on these fields cannot be made possible without achievement of sound banking system in the country. Many countries aspiring for the rapid economic development have developed banking and non-banking.

Banking industry has acquired a key position in mobilizing resources for financial and social economic development of a country. No function is more important to the economy and its constituent part than financing. "Bank assists both the flow of

goods and services from the products to the consumers and financial activities of the government. Banking provides the country with the monetary system of making payment and is an important part of the financial system, which makes loans to maintain and increase the level of consumption and production in the economy" (American Institute of Banking, 1972:162)

The main objectives of the bank are collection of amount from public in a form of saving and providing short-term loan (for the development of industry, trade, and business) to the ones in need. The development of country's economy is possible when banking operation exist in both rural and urban area of the country. Development of banking facilities leads to the development of trade and modern competitive business world. At present financial institution are viewed as catalyst in the process of the economic growth. The economic activities of a country can hardly be carried forward without the assistance of financial institutions. They are the indispensable part of the development process. Banking institutions are inevitable for mobilizing resources for finance and social economic development of a country and which is important to all parties i.e. general public, business, organization, government and other small financial institutions. The development of any country is always measured but its economic development through economic indices. That's why every country has given emphasis on boost up its economic. The mobilization of domestic resources is one of the key factors in the economic development of a country.

"The importance of the banking as the nerve center of economic development can't be over emphasized and it is said that bank which are the need of and great wealth of country water irrigation good banks are for the country's industry and trade"(Desai:1967). The bank draws surplus money from the public, who can't use the money at the time and lend to those who give attention to use for productive purpose. Bank lends loan to the customers, gain interest amount, the bank draw the money from institution or in divided or people pay the interest amount, the , the bank draw the money from the mass and invest them among those who are associated with the economic, commercial and social activities of the country.

The economic activities of country can hardly be carried forward without the assistance of financial institutions. They are the indispensable part of the development process. It is fact that the unorganized financial system leads the country nowhere. Therefore, central bank plays a major role on keeping the financial system of a country organized by providing those guidelines and directives.

Overall national development of any country depends upon the economic development of that country and economic development largely depends upon the financial infrastructure of that country. There for, the primary goal of any nation including Nepal is rapid economic development to promote the welfare of the people and the nation as well. Nepal being one of the least developed countries has been trying to embark upon the path of economic development by economic growth rate and developing all sectors of economy.

Capital structure is one of the most complex areas of financial decision making due to its inter-relationship with other financial decision variables. A financial manager must understand the firm's capital structure and its relationship to risk return and value for attainment of its primary objective of wealth maximization.

Capital structure is very crucial part of the financial management as the various composition of debt and equity capital may impact differently on risk and rate

of return to equity shareholders. The funds required by business enterprises are raised either through the ownership securities(i.e. equity shares and preference shares) and creditor shares(i.e. debentures or bonds). A business enterprise has to maintain proper mix of both the securities in manner that the cost and risk perception to the shareholders are minimized. The mix of different securities is portrayed by the firm's capital structure (Kothari,1900:105).

Capital is a scarce source and much more essential to maintain smooth operation of any firm. The available capital and financial sources should be utilized efficiently so that it can generate maximum return.

Capital structure is considered as the mix of debt and equity and to operate in long run prospect. A firm must concentrate in its proportion. A firm can raise required fund by issuing various types of financial instruments. Investors and creditors being the key supplies of capital, they take greater degree of risk and hence have claims over firm's assets and cash flow. Similar debt holders are also a source of financing fund and they take risk even though the firm's cash flow is uncertain. On the other hand, if a firm issues preference share, those shareholders have the priority in payment of dividend is fixed as the percentage of interest to debt, it is preferably paid off only after interest payment. Common shareholders are the owners of the firm, they are paid from cash remaining after all payment is being made. Since the common share i.e. equity fluctuates in the market more than the preference share and debt, there is more risk.

The above statement states in brief that either fund is raised by debt or equity financing, risk is associated in proportion of its uncertainty is being paid off. The required rate of return expected by investors according to their risks is cost of capital. Therefore obtaining necessary fund at Lowest cost of capital is fully dependent upon the proportion of debt and equity i.e. financial leverage, which is actually the capital structure used by the firm.

Capital structure concepts has important place in financial management theory. It is basically concerned with shareholders wealth maximization, As capital refers to the proportion of debt and equity, a choice in proportion is actually a financial decision in case to fulfill investment requirement. Therefore, it is always a wise decision to select a financing mix, which maximizes shareholders wealth. Capital Structure concepts have important place in financial management theory. It is basically. It is basically decision is concerned with shareholders wealth maximization. As capital refers to the proportion of debt and equity, a choice in proportion is actually financial decision in case to fulfill investment requirement. Therefore, it is a wise decision to select a financing mix, which maximizes shareholders wealth.

1.2 A brief introduction of selected Banks

1.2.1 Nepal Credit and Commerce Bank Ltd. (NCC Bank)

Nepal Credit and Commerce Bank Ltd (NCC Bank) formally registered as Nepal Bank of Ceylon Ltd. (NBOC) , commenced its operation on 14th October 1996 as a Joint Venture with Bank of Ceylon, Sri Lanka. It was the first private sector bank with the largest authorized capital of NRS.1000 million. The head office in located at Bagbazar, Kathmandu.

The name of the Bank was changed to Nepal Credit and Commerce Bank Ltd. (NCC Bank) on 10th september, 2002, due to transfer of shares and management of the bank from Bank of Ceylon an undertaking of Government of Sri Lanka of Nepalese Promoters.

At present, NCC Bank provides banking facilities and services to rural and urban areas of the country through its 22 branches. The Bank has developed corresponding agency relationship with more than 150 international Banks having worldwide network.

The capital structure of NCC Bank is as follows:

Authorized Share Capital	Rs. 2 Billion
Issued Share Capital	Rs. 2 Billion
Paid up Share Capital	Rs. 1.4 Billion

1.2.2 Bank Of Kathmandu (BOK)

Bank of Kathmandu limited has become a prominent name in the Nepalese banking sector BOK started its operation in march 1995 with the objective to stimulate the Nepalese economically and take it to never heights. It also aims to facilitate the nation's economy and to become more competitive globally. BOK is committed to delivering quality service to customers generating good relation to shareholders, providing attractive incentives to employees. and serving the community through stringer corporate social responsibility endeavor. It is a bank managed by Nepalese bankers and professionals.

The capital structure of Bank of Kathmandu is as follows:

Authorized Share Capital	Rs. 2 Billion
Issued Share Capital	Rs. 2 Billion
Paid up Share Capital	Rs. 1.6 Billion

1.3 Statement of the problem

Capital structure is the contribution of ownership and debt capital. If there is no proper mix of owners' capital and debt capital any business organization can not run efficiently. If there is insufficient owners' capital to pay debt, the business organization can not able to pay the debt when they demand. This is the critical condition of a business. So any business organization should manage its capital structure properly.

Capital structure is the combination of ownership and debt capital. If there is no proper management of owners' equity and debt a business organization will suffer liquidity crises and working capital crises.

In the Nepalese economy, Commercial banks rapidly and showing the best operating result in most recent years. The growth of the banks may be the outcome the capital structure they are applying. Realizing this fact various studies regarding capital of the banks have been carried out but they have not been able to provide clear findings managing their capital structure and what is the leverage position of these institutions. Capital structure has taken as the subject of controversy over

since the publication of Modigliani and Miller Classic Paper in 1958 and the debate still exists as a puzzle. As a result the matter is running as an interesting issue among the research scholars and students of finance. Thus, the dare was collected to carry out a study on capital structure with other hand. Commercial banks are major companies of financial system and they word as a catalyst of economic development of the nation.

Commercial banks have vital role in the economic upliftment. Commercial bank is the bank which deals in exchanging the currency, accepting deposits giving loans and performing commercial transactions. Therefore commercial bank acts as pool between savers and investors of the fund. Banks must also maintain the adequate cash and bank balance to meet the day by day management of resources, i.e., liquidity position of the bank. Although banks are profit generating business organization, customers' expectations are also taken under consideration.

Although every bank has wide range of services covering the different strain of society, deposit collection, loan disbursement and collection has to follow a number of directives set by the central bank in all the activities. Nepal Rastra Bank is playing vital role for capital structure management of commercial banks. So every bank should follow the rule and update itself. It helps to manage long term investment and maintaining liquidity position. Therefore the present studies seek to explore the answer the following question.

How far the joint venture bank been able to mobilize their resources? Does the proportion of debt and equity in capital structure effect the capital management of joint venture bank or not?

How efficiently these banks are managing their capitals structure? Does the assets structure helps to improve the capital structure of the joint venture bank or not?

To what extend these banks have been able to raise their profitability?

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1. How far the joint venture bank been able to mobilize their resources? Does the proportion of debt and equity in capital structure effect the capital management of joint venture bank or not?
2. How efficiently these banks are managing their capitals structure? Does the assets structure helps to improve the capital structure of the joint venture bank or not?
3. To what extend these banks have been able to raise their profitability?

1.3 Objective of the study

The major objectives of the study are to evaluate the capital structure of Nepal Credit and commerce Bank and Bank of Katmandu. It is the study about the capital structure & profitability of NCC and BOK by taking the financial data. It tries to analyze the overall capital structure & profitability. The specific objectives are as follows:

- To see the relationship of the capital structure and cost of capital of selected banks.
- To see the relationship of capital structure with variables like earning per share, dividend per share total debt to total assets, debt to equity ratio, interest coverage ratio, return on share holder equity of selected banks.
- To evaluate the role of capital structure on the growth of selected banks.
- To provide suggestion and recommendation on the basis of major findings of the study.

1.4 Significances of the study

In every banking sector, finance plays a crucial role to indicate the financial behavior. It helps to get the core root how capital are generated and utilized. It also helps to get the company's profit, loss, investment portfolio, current assets, current liabilities etc.

This is the main objective of every commercial organization. So, this study is very essential to every profitable organization to get the total overview, how company is showing the financial performance on current market affair.

1.5 Limitation of the study

In every case, there is pragmatic limitation under which the study is to be made. There is no always necessarily need to match the theory and practical. Other working problem such as time constraint resources unavailability study type and various official difficulties hinder the research study. The main focus of this study is on Capital Structure of Nepalese Commercial Banks. Following factors have further limited the scope of this study.

1. The study is concentrated only on commercial banks of Nepal. Hence findings were not applicable to other financial institution, " the development banks i.e. the grade'b' financial institutions and finance companies i.e. the grade'c' financial institutions".
2. The study is basically based on secondary data, which may or may not provide exact vision of the field. Hence, the findings will be in accordance of the data. Personal judgment sampling method is applied to draw the sample method is applied to draw the sample.
3. Primarily this study is concerned only with capital structure of Nepalese Commercial Banks. It does not consider other financial aspects of the banks.
4. The study covers the five years period data of fiscal years 2006/07 to 2010/11

1.6 Organization of the Study:

This thesis has been organized into five major chapters.

Chapter1. Introduction

This chapter deals with the review of previous research in this field in the form of books, journals and unpublished materials. This is an independent research on the related field.

Chapter2. Review of Literature

This chapter deals with the review of previous research in this field in the form of books, journals and unpublished materials. This is an independent research on the related field.

Chapter3. Research Methodology

This chapter consists of the research design, sources of data, collection procedure, and tools for analysis (statistical and financial tools), method of data analysis and hypotheses testing tools.

Chapter4. Presentation and Analysis of Data

This chapter concerns with the application of defined research method on the collected data and information. The general result after the application of research method on the data was also analyses and interpreted in this chapter.

Chapter5. Summary conclusions and Recommendations

To summaries the whole thesis report, it presents the summary and concluding remark whit a suggestive package as recommendation. At the end of this thesis, bibliography and appendices also included.

CHAPTER-II

REVIEW OF LITERATURE

Review of literature is a compilation of theoretical review and the review of the thesis/ dissertation carried out in the similar field. Literature here means the related printing materials about the subject matter of the research work. It may be in various forms like book, booklet thesis reports etc. review of literature is vital while doing research work as it gives the ending of the previous study. It can be used as a secondary data, and it gives the valuable information about the subject. This chapter aims to give a conceptual framework and makes a review of the relevant studies that have already been done in this research topic so that some new contribution could be given to the established body of knowledge.

2.1 Theoretical Review

2.1.1 Concept of Capital Structure

Capital structure refers to the mix of long-term sources of funds. Such as, debentures long term debt and preference Share capital and equity share capital including reserve and surplus (Pandy1999: 132). Capital structure concept holds major place in the field of financial management. Capital structure is the composition of various types of long term sources of funds, debt, preferred stocks, debentures and equity including retained earnings(reserves & surplus). Sometime it is also referred to as financial structure, if there is no short- term liability.(Khan and Jai, 1992:243) stressed that the capital structure or financial structure refers to the composition of the firm is the permanent financing represented by long term debt, preferred stock & shareholder's equity. They further added that a firm's Capital structure is only part of its financial structure.

Financial structure of a firm represents the composition of various means of financial, i.e. short term and long term. In this way, the capital structure is only part of the financial structure of an enterprise as the mixture of liabilities, plus equity, which are shown by the left hand side of the balance sheet. Similarly, the capitalization of the firm is different from the capital structure. Capitalization is a word ordinarily used to refer the sum of outstanding stocks and funded obligation which may represent whole factitious value(Lincoln,1982:265).

2.1.2 Capital Structure Decision

Decision regarding the choice of capital components is known as the capital structure decision. The capital structure decision is a significant financial as well as managerial decision. It affects the shareholder's return and risk. Consequently, the market value of the share may be influenced by the capital structure decision. Every type of corporations should have to plan their capital structure initially at the time of promotion. Subsequently, Whenever funds are needed to finance investments, a capital structure decision is involved. (Gitman, 1998:342) stressed that the capital structure decision involves an analysis of the existing capital structure and the factors that will affect the decision. (Pandey, 1999:231) has identified many more factors, which play the vital role in the process of capital structure decision. Such as, stakeholder's attitude, nature of required funds, risk and returns associated with investment, management's desire, existing capital structure, dividend policy, shareholder's expectation, government rules & regulation, access to the capital market etc. Pandey adds that, the dividend decision of a firm works as a bearing on capital structure and capital structure decision.

2.1.3 Optimum Capital Structure

The capital structure is said to be optimum when the marginal real cost (explicit as well as implicit) of each available source of financing is identical with an optimum debt and equity mix, the cost of capital is minimum and the market price per share (or total value of the firm) is maximum. The use of debt in capital structure or financial leverage has both benefits as well as cost (Khan & Jain, 1992:298).

In this way, the optimum capital structure is an appropriate mix of long-term sources of financing. Optimum capital structure will lead to maximize shareholder's wealth as reflected in the market price per share (Solomon, 1969:354), Optimum capital structure or leverage is an appropriate mix of debt and equity which will maximize the market value of the claims and ownership interest represented on the credit side of the balance sheet.

An optimum capital structure would be obtained at the combination of debt and equity that maximize the total value of the firm (value of shares plus value of debt) or minimize the weighted average cost of capital. Therefore, financial managers of a firm should have to compose the optimum capital structure. But in

practice e, it is a formidable task to determine the optimum capital structure for a corporation.

2.1.4 Features of an Optimum Capital Structure

Optimum capital structure may be defined as the combination of different capital components in capital structure that leads to the maximum value and minimum overall cost of capital. Thus, a sound or appropriate or optimum capital structure is an indicator of efficient financial, practice.

Pandey(1999) has explained the feature of optimum capital structure is given below:

Return: Optimum capital structure should not be the subject of higher risk. The use of excessive debt threatens the solvency position of the firm. To the point, debt does not add significant level of risk it should be used, otherwise its use should be avoided.

Flexibility: The capital structure should be flexible. It should be possible for a company to adopt its capital structure with a minimum cost similarly; it should be possible for the company to provide funds whenever needed to finance its profitable activities.

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

Control: The capital structure is said to be optimum when the control of the company is in the desired level. The capital structure should involve minimum risk of loss of control in the company.

2.1.5 Financial Leverage

In the field of finance, the term leverage is defined as the employment of assets or sources of funds for which the firm has to pay & fixed cost or fixed return or fixed charges. There are mainly two types of leverage- operating leverage and financial leverage. The leverage which is associated with financing activities is referred to as financial leverage. The term leverage is quite commonly used cost assets or funds to magnify the returns to its owners (Gitman,1992:397).

The financial leverage is described as the ability of a firm to use fixed financial charges to magnify the effects of changes in EBIT on the firm's earnings per share. In other words, financial leverage involves the use of funds obtained at a fixed cost in the hope of increasing the return to the shareholders (Khan & Jain, 1992:423).

2.1.6 Meaning of Capital

In simple term, the capital is defined as wealth employed in production process to generate more wealth and profit. Capital includes May funds thus employed. In financial and accounting terms capital can be defined as the excess amount of assets over liabilities. Commercial banks produce loans and financial innovations (or financial products) to facilitate trade transaction. Because of special role they play in the economy, they are heavily regulated by concerned authorities. Thus the capital and composition of the capital components is different in these institutions. The commercial Bank Act 2031 B.s has defined capital funds of a bank as paid-up equity, statutory reserve, retained profit and any other reserve prescribed by Nepal Rastra Bank from time to time.

According to the Nepalese RastraBank Act 2058 and NRB directives, the capital funds of a bank comprise the following:

i. Core capital: Core capital of a bank includes:

- a. Paid up equity
- b. Share premium
- c. Non-redeemable preference shares
- d. General reserve
- e. Accumulated profit and loss

ii. Supplementary capital: Supplementary capital includes:

- a. General loan loss provision(GLLP)
- b. Exchange fluctuation reserve
- c. Assets revaluation reserve
- d. Hybrid capital instruments
- e. Unsecured subordinated term debt
- f. Other Free reserve

Banking and financial ordinance 2065 also assimilates the same things, that were included and explained in Nepal Commercial Bank Act 2031 and Nepal Rastra Bank Act 2058, in regard of bank capital.

Nepal Rastra bank Act is effective from 1stShrawan 2058 (July 16th 2001). According to the NRB, minimum paid- up capital requirement for establishment of commercial banks is as under:

- Rs. 250 million to operate all over Nepal except Kathmandu Valley.
- Rs. 1000 million to operate all over Nepal.
- All existing commercial banks are required to raise their capital base to Rs. 1000 million by mid July-2009.

2.1.7 Sources of Bank Capital

Bank is viewed as a financial intermediary with core and supplementary capital in its capital structure. Based on the core and supplementary capital, there are various sources of bank.

(Dagal& Dahal,2002: 276) have explained the following sources of bank capital.

i. Money invested by the shareholders.

- Paid up equity
- Share premium
- Redeemable preference share
- Non-redeemable preference share

ii. Retention of profit

- Statutory reserve
- Retained profit
- Loan loss provision
- Assets revaluation reserve
- Exchange fluctuation funds
- Other free reserve

iii. Money invested by creditors

In general, Banks collect capital by issuing shares, which is known as share capital. Share capital can be both ordinary share and preference shares. Commercial banks are required to obtain the approval of Nepal Rastra Bank in case of issuing preference share capital. Preference share may be redeemable and non-redeemable. In this way, preference share capital. Preference share may be redeemable and debt/deposits and ordinary shares and the preference shareholders have the right of preference claim over common equity shareholders but after the outsiders claim. Similar, the ordinary share capital is a major capital source for commercial banks. It is a pure ownership financing. (Dahal&Dahal, 2002:307)

stressed that, the ordinary share capital is the pure ownership financing and primary source of capital for the bank. Ordinary

Shareholders share the profit and bear all the losses.

The debt capital is a major component of capital structure, which carries the predetermined fixed amount of interest. Interest are payable periodically on debt capital and the principal is repaid after a certain specified period. Generally, there is no long-term debt capital in the capital structure of commercial bank. Commercial banks are required to obtain the approval of Nepal Rastra Bank in case of issuing any long-term debt as a supplementary capital. According to Nepal Rastra Bank Act 2058, debt any other hybrid capital instruments are categorized under supplementary capital.

2.1.8 Capital Structure Theories

Capital Structure is the determinant of overall cost of capital and it affects the value firm by affecting either in expected earnings or in the cost of capital or in both. On the other hand, the use of debt in capital structure affects value of the firm through the cost of capital and optimum capital structure exists in practice. The optimum capital structure is obtained with the appropriate mix of capital components, which leads maximum value and minimum overall cost of capital in the firm. There is a long debate in the regard and running as a matter of research. As a result, various research works and empirical studies are carried out and different theories have been developed in this matter.

2.1.8.1 The Net Income Approach (NI Approach)

The net income approach is suggested by Durand D. in 1959. It is a relevancy theory of capital structure, which assumes that the capital structure decision is relevant for the valuation of the firm. Net income approach states that the value and the overall cost of capital are heavily influenced by the capital structure decision. Leverage can maximized the value of a firm and minimize the overall cost of capital. By using the debt value can be minimized and overall cost of capital can be minimized. (Khan and Jain,1992:464), stressed that a corresponding change in the overall cost of capital as well as the total value of the firm. In this way, when the degree of financial leverage, measured in terms of debt to equity ratio is increased, then the weighted average(overall) cost of capital will decline. With the decline in overall cost of capital, the value of the firm as well as the market price of ordinary shares increases. Conversely, a decrease in the leverage

causes and increase in the overall cost of capital and decline both in the market value of equity as well as the value of the firm.

The crux of the net income approach is that the firm can increase its value or lower the overall cost of capital by increasing the proportion of debt in the capital structure. This approach is based on certain assumptions like change in leverage does not change the risk perception investors. Due to the attitude towards risk the equity capitalization rate (K_e) and the capitalization rate on debt remain constant with any level of leverage. The net income approach assumes that the capitalization rate of debt is less than equity capitalization rate. ($k_d < K_e$). The world is assumed as tax free world. The overall cost capital (K_o) will decrease with the increasing debt to total assets ratio or debt to equity ratio. The overall cost of capital is measured by dividing the net operation income by value of the firm (value of the debt plus value of the equity).

2.1.8.2 The Net Operating Income Approach

The net operating income theory of capital structure also was suggested by Durand, D. in same time, According to the net operating income approach, value of the firm is independent from the capital structure decision. Therefore, the theory is called as irrelevancy theory of capital structure. The intrinsic nature of this approach is that the leverage or capital structure decision of the firm is irrelevant. Any change in leverage will not lead to any change in the total value of the firm and the market price of the total value of the firm and the market price of the share as the overall cost of capital is independent of the degree of leverage. (Van Horne, 2001:387) argued that the market value of the

Firm is obtained by capitalizing, the net operating income by overall capitalization rate. The market value of stock is obtained by deducting the market value of debt from total market value of the firm. Under this approach, the overall capitalization rate (K_o) as well as the cost of debt fund (K_d) remain the same regardless of the degree of leverage. They required return on equity, however, increases linearly with increasing debt to equity ratio.

This approach is based on certain assumptions, such as the market uses an overall capitalization rate (K_o) to capitalize the net operating income. The overall cost of capital (K_o) depends on the business risk. The risk is assumed to remain unchanged and K_o is assumed to be constant. The market is assumed to increase the risk of shareholders. This causes the equity capitalization rates to increase. Thus, the advantage of debt is assumed to be offset exactly by the

increase in the equity capitalization rate(K_e) .The capitalization rate on debt (K_d) is assumed to remain unchanged with leverage.The theory also assumes a tax free world.

According to net operating income approach, the total value of the firm is found out by dividing the net operating income by the overall cost of capital(K_o) . The overall cost of capital is constant. Thus, the market value of firm is irrelevant with capital structure decision or it remains unchanged with change in leverage ratio. But the market value of equity and equity capitalization rate changes with leverage ratio.

2.1.8.3 The Traditional Approach

Net income approach and net operating approach represent two extremes as regards to the theoretical relationship between financing decision as determined by the capital structure, the overall cost of capital and total market value of the firm. The traditional approach is wide way between the net income approach and net operating approach .Thus, it is also known as the intermediate approach of capital structure. The traditional approach assumes that value of the firm can be maximized by approximate mix of debt and optimum capital structure can be obtained with judicious mix of debt and equity. The cost of capital is a function of leverage.(Khan & Jain,1992:376) assimilate in this regard as, the essence of the traditional approach relating to leverage and valuation is the existence of optimum capital structure. A firm can increase its total value and thereby reduce its weighted average cost of capital by judicious use of debt- equity proportion.(Pandey,1999:357) argued that debt is a relatively cheaper source of funds as compared to common ordinary shares. With a change in the debt to equity ratio (i.e using more debt) relatively cheaper source of funds replaces a source of funds which involves a relatively higher cost . As a result, decline in the overall cost of capital and lower overall cost of capital obviously provides higher value. Similarly, if the debt to equity ratio is raised further, the firm would become financially more risky to the investors who would penalize the firm by demanding a higher equity capitalization rate (K_e).

Under the traditional view, cost of capital can be reduced by using approximate mix of debt and equity capital. This approach very clearly implies that the cost of capital decreases within the reasonable limit of debt and then increases with leverage. Thus an optimum capital. Is minimum,(Solomon,1969, 432) explained

the three stages of capital structure that are occurred in the firm, with changing leverage:

First stage: Increasing value

In the first stage, it is assumed that the cost of equity (K_e) remains constant or rises slightly with debt. But when it increases, it does not increase fast enough to offset the advantage of low-cost debt. During this stage, the cost of debt (K_d) remains constant or rises negligibly, Since the market views the use of debt as a reasonable policy. As a result, the value of the firm increase or the weighted overall cost of capital (k_d) falls with increasing leverage.

Second stage: Optimum value

One the firm has reached a certain degree of leverage, increases; in leverage have a negligible effect on the value, or the cost of capital of the firm. This is so because the increase in cost of equity due to the added financial risk offsets the advantages of low cost debt. Within that range or at the specific point, the cost of capital will be minimum. As a result, the value of the firm will be maximum which are optimum value and the leverage ratio for a firm.

Third stage: Decline

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

2.1.8.4 Modigliani:- Miller Approach(M-M Approach)

The Modigliani-Miller theory of capital structure is suggested by Modigliani F and M.M Miller in 1958 A.D. The Modigliani-Miller approach relating to the relationship between the capital structures, cost of capital and valuation is similar to the net operating income approach, which assumes that the capital structure or leverage decision of the firm is irrelevant. In the same way, Modigliani-Miller approach assumes that the weighted average cost or overall cost of capital does not change with a change in the proportion of debt to equity in capital structure. The net operating income approach does not provide the operational justification for the irrelevant of capital structure decision. But the M.M approach provides analytically sound and logically consistent behavioral justification about the

capital structure and valuation M.M proposition supports the net operating approach or irrelevancy theory of capital structure. It provides behavioral justification for constant overall cost of capital and therefore total value of the firm, which is the significance of M.M approach.

There are three fundamental propositions of the Modigliani-Miller approach which provides the strength for their hypothesis. They argue that, the overall cost of capital and the value of the firm are independent of firm, capital structure. The value and the cost of capital is a function for expected stream of operating earnings. In addition, they argue that the cost of equity (K_e) is equal to the capitalization rate of pure equity stream plus a premium for risk is defined as the difference between the pure capitalization rate (K_e) and cost of debt (K_d) times the debt to equity rate, (Premium for financial risk = $(K_e - K_d) \times B/C$). At last, they argue that the cut off rate for investment is completely, independent from the way of financial.

The Modigliani-Miller approach is based on certain assumptions such as existence of perfect costs and no presence of corporate taxes. They also assume all securities to be infinitely divisible and all investors to be rational and behave accordingly. They assume that firms can be grouped into homogeneous risk classes and firms can be grouped into equivalent risk classes. The average expected future operating earnings of a firm were assumed to be represented by subjective random variables. The expected values of probability distribution for all investors are assumed to be same.

2.2 Review of Related Studies

The capital structure theorem has taken the subject of controversy ever since the publication Modigliani and Miller's classic paper in 1958. While the traditional theory of finance claims that the cost of capital is a function of capital structure, the Modigliani and Miller version of the theorem asserts that the firm's capital and the value is independent from the firm's capital structure. Both views are found logically consistent and have been supported by empirical observation. Many empirical studies exist supporting the M-M and the traditional view but the issue still remains unsettled. Although, different research works are carried out by different scholars within the various geographical region. Those studies and issue are reviewed in this section. This is related with capital structure and the area of the study.

Shalar (1968) conducted a study on *capital structure and the cost of capital* with objectives of presenting the structure theorem within the framework of the theory of investor's behavior towards return and risk. In this research work, the paper has tried to clarify the controversy over the capital structure theorem. In this research work, the firm's capital structure was examined in terms of two parameters. Such as: the expected rate of return on the firm's stocks and standard deviation of return in the stocks. The relationship between the firm's capital structure and efficient opportunity curve of yield (return) versus risk was presented and the range of efficient capital structure of the firm was determined. Then the capital structure theorem was formulated that the firm's cost of capital is constant along with range of efficient capital structure and rises with the inefficient range. The major findings of the paper were that, when the firm's borrowing rates rises and the investor's rate is constant then the range of efficient capital structure is limited. The highest efficient financial leverage is determined where the firm's marginal borrowing rate equals the investors' rate. The cost of capital is therefore constant along with the range of efficient capital structure and rises along with the ranges of inefficient capital structure. In this paper the researcher has concluded that any capital structure is efficient and the cost of capital is therefore constant in a perfect capital market, where the interest and interest rate is constant. (Shalar, 1968)

Sharma and Rao (1969) conducted an empirical test of M-M hypothesis on the topic of *leverage of the value of the firms*. The purpose of the study was to employ the M-M hypothesis on the influence of debt on value of a firm. The purpose of the study was to employ the M-M hypothesis on the influence of debt on value of a firm. In this research work the required data and information were collected by taking a sample of 30 engineering companies from the Indian meaningful result. Different tools for three cross-section year 1962, 1964 and 1965. Variables were calculated in exactly the same way as that done by M-M except for the treatment of the leverage variable. In the regard of selecting variables, researchers argue that if there is unused capacity in the firm then the growth in assets does not convey anything meaningful to investors. In the presence of unutilized gives a proper picture of growth potential of a firm. Thus, they have used the growth rate of earnings as the growth variable in the

Researchwork on the basis of empirical test of different variables they found all the coefficients of the leverage variable are significantly greater than the corporation income tax rates of three years period. At last, they concluded that the

investors prefer corporate to personal leverage and therefore the value of a firm rises up to a leverage rate consider.

Lichtenberger and Rao, (1970) conducted study on *leverage and the cost of capital in less developed capital market*. The study tried to find out the effect of capital structure on the capital in less developed and less efficient capital market (India) and in developed and less efficient capital market (United States). Researchers conducted the empirical analysis for five cross-section years(1962-1966) by using 28 Indian and 77 American utilities. Different models and tools were used to draw the conducting framework. The study shows that the cost of capital is independent from capital structure and investors are independent for the firm's divided policy in developed and efficient from capital market, whereas in the case of less developed and less efficient capital market, the result is consistent to the Modigliani-Miller approach and support the traditional approach. The firm's cost of capital is dependent of capital structure and investors prefer the current dividends instead of capital gain. The conclusion of the paper is that the Modigliani-Miller approach of capital structure does not appear to be applicable in the case of a developing economy.

Pringle(1974) carried out a study on the *capital decision in commercial banks*. In this paper, a detail theoretical analysis of the economic role of capital from the standpoint of the individual commercial bank is carried out. Major purposes of the study were to clarify the functions of bank capital, to investigate the implications for the capital position of optimizing behavior with respect to shareholder interests and to identify the determinants of optimal capital markets, bank is private maximizing economic unit, future events are uncertain, investors are risk averse, and optimality is defined in terms of the interest of shareholders rather than of depositors and monetary system. In this paper, the researcher has conducted that, capital is an important managerial decision variable and that it plays an important role in the financial management of the individual bank.

In addition to the traditional function of risk bearing, capital is important in adjusting the maturity structure of liabilities. Practicing bankers sometimes characterize the function of capital in terms in terms of "Underwriting or providing a base" for deposits and asset expansion. Considering shareholders are interest, the capital/ deposit balance must be maintained for two reasons rather than only one(risk bearing). The market imperfections are important determinants of optimal capital policy as well as of loan policy and optimal scale of the bank.

Jackson (1975) conducted a study on *commercial bank regulation structure and performance*. The study was carried out to identify the determinants of commercial banks allocation efficiency. Both theoretical and empirical microeconomic analysis has applied influences. In this paper, the nature of banking was examined, showing that banks are essentially financial intermediaries that are engaged in greater competition than is commonly believed. Many theories of the firm as a bank are presented emphasizing efficiency. Almann Phillip's model of complex interaction between banking firms and other influences on observed performance was used to summarize banking theories.

For the empirical analysis purpose, data were collected by converting 1644 banks over the period 1967-1971. Regression analysis was used to measure the relationship among variables. As a conclusion, the study showed that, the relatively "desirable" banking performance is associated with several traits including bank asset size, non bank competition, low cash holdings, low labour cost, state non member basic status, multi-bank company legislation, national bank status, low time deposits and low equity capitalization. Demand levels and temporal variable also significantly affect the banking performance.

Furthermore, the study showed that the commercial bank regulation structure and performance are interrelated with each other.

The Major Objectives and Findings of the Study:

The major objectives of the study are to evaluate the capital structure of Nepal Credit and commerce Bank and Bank of Katmandu. It is the study about the capital structure & profitability of NCC and BOK by taking the financial data. It tries to analyze the overall capital structure & profitability. The specific objectives are as follows:

- To see the relationship of the capital structure and cost of capital of selected banks.
- To see the relationship of capital structure with variables like earning per share, dividend per share total debt to total assets, debt to equity ratio, interest coverage ratio, return on share holder equity of selected banks.
- To evaluate the role of capital structure on the growth of selected banks.
- To provide suggestion and recommendation on the basis of major findings of the study.

- The long term debt in comparison to their total assets used by all two banks for financing is very minimum or negligible. Hence, the debt to total assets ratio of NCC and BOK is negligible.
- The return of shareholders equity of NCC and BOK is showing increasing trend. The NCC has average return of 23.15 which indicates that the shareholders earn 23.15 paisa investing one rupee. Likewise BOK has average return 15.79. The return of NCC is higher than BOK.
- BOK has the highest long term debt to capital employed ratio i.e. 0.22. This indicates that BOK is using more long term debt for financing its capital. Similarly, NCC has average ratio of 0.19.
- The earning per share explains net income for each unit share. It shows that the market position of the firm. The average earning per share of NCC and BOK is 66.54 and 55.92 respectively. In this analysis we can see that the EPS of NCC is the highest with 66.54 and continuous strong growth in the past 5 years.
- The correlation coefficient between EBIT and DPS of NCC and BOK are 0.27 and 0.73 respectively which is positive. The P.E of all banks is 1.67 and 0.84 respectively which is greater than correlation coefficient (r). So it is insignificant.
- The analysis shows that all the sampled bank under this research study NCC and BOK are able to pay the interest coverage ratio of 1.98. In the case of NCC the trend is increasing with the average of 1.84 which is a good sign.
- On this part of NCC is the front runner with highest average return on assets of 1.49. The overall return of BOK is 1.34.
- The percentage of total debt of firm covered by long term debt is indicated by long-term debt to total debt ratio NCC has 1.47% of average long term debt of total debt ratio and BOK is 0.97%. In all three cases the total debt is contributed by current liabilities to large extent. The analysis of all two banks reveals the fluctuating trend of long term debt to total debt ratio. NCC and BOK have stopped using long term debt.
- Dividend per share is the earning distributed to ordinary shareholders. The analysis shows that BOK paid the highest DPS on average with 16.32. It didn't pay DPS to its ordinary shareholders in F/Y 2006/07, 2006/07 and 2010/11 while DPS of NCC on an average is 15.
- The debt to equity ratio shows that the claim of creditors on the total assets of the company. The trend analysis shows fluctuating trend in all the sampled banks used for this study. The average debt to equity ratio of NCC

shows that the creditors have 21% claims on the assets of NCC. It shows that the bank has used higher amount of debt for financing and has highest amount to be paid as interest on debt. BOK has lowest debt to equity ratio among two banks with average of 0.098.

- Under the NI approach the interest rate and the cost of equity are dependent of the capital structures with the increased use of leverage overall costs of capital declines and the total value of firm raise. On the contrary, we can assume that NCC has bad capital and lowest value of firm.
- NCC has positive correlation between TD and SHE of 0.96 and its respective P.E is 0.14 which is less than correlation coefficient i.e. relationship between TD and SHE is significant. In case of BOK the correlation coefficient is 0.92 and its respective P.E is 0.28 which is also less than correlation which shows that the value of 'r' is significant. Ratios between long term debt and earning per share of NCC, BOK are 0.63 and 0.56 respectively and show positive correlation but P.E is greater than that of calculative value (r). So, it is significant.
- The correlation coefficient between EBIT and interest of all two sampled bank under this study are positive. The entire two banks have significant value since it is greater than P.E.
- Net Operating Income (NOI) approach is an independent hypothesis of capital structure. Any change in leverage will not lead to any change in the total value of firm and market price of the share. The value of NCC is higher with 4.73% whereas BOK is 4.68%. So we can say that BOK has optimum capital structure than NCC. The financial leverage analysis helps to evaluate the financial risk of the firm. The average degree of NCC and Bok are 2.19 and 2.03 respectively from the analysis. So, we can say its EPS is quite volatile. Meanwhile, BOK is bearing the lowest risk between the two.

Adhikari(1992) conduct a *study on capital structure effect on average cost of capital*. The major objective of the study was to analyses the effect of the capital structure on the cost of capital in the context of Nepal. Specially, the aim of the study was to test the relationship between capital structure and average cost of capital. The study was based on the pooled data of selected five financial enterprises listed in the security exchange center. The study period was bounded from 1976 to 1978. Simple and multiple regression approaches were used to test the relationship. In the simple regression models, the average cost of capital was regression model the average cost of capital was regressed on the leverage

together with other explanatory variables. He found negative sign of beta coefficient of leverage under both analyses. On the basis of these findings, the researchers concluded that study does not support the M-M's independence hypothesis. It indicates that the use of debt in capital structure increases the value and decreases the overall cost of capital.

Shrestha (1993) conducted *a study on capital structure in public companies*. She used data from 19 companies and the study covered different sectors manufacturing, finance utility service and other area. She found that most of the companies have relatively higher debt capital than equity capital. Consequently, most of them are operating at losses, to the extent that interest payment on loan has been serious issue in these organizations. Due to the higher amount of debt in capital structure all of the enterprises are facing the problem of properly servicing the debt. In this way, she has suggested that the government have to consider in public enterprises by evaluating the relationship among the variables that are important is designing capital structure as well as the use of debt and its impact on overall earnings. Nepalese public enterprises are absorbing the huge amount of government funds. So, it is necessary to develop a suitable capital structure guideline for these enterprises from the side of government. Because of the funds used in public enterprises is not a cost less fund. To make the more realistic capital structure. It is needed to analysis the cost and risk-return trade off. At last she concluded that most of the public enterprises have no transparent capital structure and capital structure is determined without any realistic parameter. Thus, policy makers should have to be careful in developing capital structure guidelines for public enterprises and the organizations also to be aware of financial accountability.

Booth Etal. (2001) has conducted *a research work on capital structure in developing countries*. The purpose of the study was to analysis the capital structure choices made by companies from developing countries having different institutional structure and economic structures. The study was attempted to search the answer of three different questions. Data and information were collected from the international finance corporation (IFC). In addition with this source, other related data and information were collected from 10 different countries. Such as India, Pakistan, Thailand, Malaysia, Turkey, Zimbabwe, Mexico, Brazil, Jordon and Korea. Different common financial and mathematical tools were used to examine the financial data. In this study a new firm-level database was used to examine the financial structure of firm in a sample of 10 developing countries.

They found that the variables that are relevant for explaining capital structure in the United States and European countries are also relevant in developing countries. Although, there are the financial differences in institutional factors across these developing countries. Therefore, they conclude that the knowledge of institutional factors is essential to predict the financial structure and capital structure of a firm then the knowledge of its nationality. Furthermore, they found that the firms are adopting "Pecking-order hypothesis" because of the higher costs involving in external financing in these countries. Finally, they conclude that the debt-ratios in developing countries seem to be in developed countries. However, there are

systematic differences in the way these ratios are affected by country factors, such as GDP growth rates, inflation rates and the development of capital markets.

2.2.1 Review of related Thesis

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

Pandey,(2007) "*The Relationship between Capital Structure and Cost of Capital of Selected Listed Company in Nepal*". The main objectives of the study are; to test the relationship between capital structure and average cost of capital in Nepalese industries and to analyze the properties formed on leverage and cost of capital of Nepalese on enterprises. The Major findings of the study are: average cost of capital and liquidity are higher in manufacturing industry, leverage size of capital and employee and cost of equity of banking sector is higher then other sectors. The correction coefficient of leverage has positive correlation with cost of capital of banking industry. Growth in total assets, dividend payout ration and earning variability of finance, trading and hotel industrialist are higher than other industries respectively. As per based on the study, the major recommendation and suggestion of the of the study are; Nepalese enterprises should be designed and appropriate capital structure in order to maximize shareholders' wealth proper analyze and evaluation of capital mixed decision should be required in the Nepalese enterprises. Nepalese enterprises do not appear to maintain proper liquidity standard . It is necessary to maintain liquidity standard to compensate short term risk .

The major objectives of the study are as follows :

- To study the relationship between capital structure and average cost of capital .
- To analyze the properties formed on leverage and cost of capital of Nepalese on enterprise.
- To evaluate the strength and weakness of the company in Nepal.

The major findings of the study are as follows:

- Average cost of capital and liquidity are higher in manufacturing industry, leverage size of capital employee and cost of equity of banking sector in higher than other sectors.
- The correlation coefficient of leverage has positive correlation with cost of capital of banking industry .
- Growth in total assets, dividend payout ratio and earning variability of finance, trading and hotel industrialist are higher than other industries respectively .

MR.PathakKrishna(2008): has conclude research on "*study on capital structure management of Gorakhakali Rubber Udyog Limited*" it was analyzed all the variables in the firm ratio analysis.

The major objectives of the study are as follows:

- To study and analyze the capital structure decision for Gorakhakali Rubber Udyog Limited.
- To access the trend of change in capital structure of the Gorakhakali Rubber Udyog Limited.
- To study the relationship between long-term debt and equity capital.

The major findings of the study are as follows:

- Company's debt servicing capacity was very poor due to the negative interest coverage ratio.
- The operational performance was not satisfactory due to negative earning and low volume of sales revenue.
- As compared to the shareholders equity and the trend of debt/equity ratio was increasing every year.

Bista.(2009) had done the *comparative study about two hotels, Yak & Yeti and Soaltee which is entitled " An Impact of Capital Structure on Profitability"*. He has found that to provide maximum returns to the shareholders and to increase the value of the firm, the firm has to focus on profit which is one of the successful firm in planning its most optimal capital structure. By analyzing the debt to equity ratio in terms of long-term debt and share holders equity, both hotels' D/E ratios are not higher according to the standard ratio, which constitute 1:1. Hotel Yak &Yati is trying to be levered company, which has practice of increasing the E/E ratio. In order words to get higher ROE, both Hotel is have once higher profit margin but it is impossible to get high profit margin every time. He has also recommended that they should give equal impact to other factor like operating efficiency and assets efficiency, etc. and the government also should be make effective tourism policy.

The major objectives of the study are as follows:

- To examine capital structure, financial leverage and other relevant variables of Hotel Yak &Yati and Soaltee.
- To evaluate the strength and weakness of the Hotel Yak &Yati and Soaltee.
- To study and analyze the Capital Structure decision for Hotel Yak &Yati and Soaltee.
- To know about the relationship between long-term debt and equity Capital.

The major Finding of the study are as follows:

- The companies provide maximum returns to the shareholders and to the increase the value of the firm, the firm has to focus on profit which is one of the successful firm in planning its most optimal Capital Structure.
- The debt to equity ratio in term of long-term debt and share equity both hotels 'D/E ratios are not higher according to the standard ratio, which constitute 1:1 Hotel Yak& Yeti is trying to be levered company, which has practice of increasing the E/E ratio.
- ROE of both hotelis have once higher profit margin but it is impossible to get high profit margin every time.

Pradhan,(2010) has carried out a study on "*Capital & Profitability" a comparative case study between Nepal Investment Bank Ltd & Nepal SBI Bank Ltd*. The capital structures of both banks are highly levered, so it is difficult for them to interest and principal that may ultimately lead them to liquidity and bankruptcy. There is no significance relationship between debt and equity ration in term of fixed deposit to

net worth and overall capitalization rates of the banks. He has suggested that NIBL should expand assets and branches, which ultimately affect the bank's performance, increase the profitability more then ever.

The major objectives of the study are as follows:

- To study and analyze the capital structure decision for NIB and SBI Banks.
- To access the trend of change in capital structure of NIB Bank and SBI Bank.
- To evaluate the strength and weakness of the NIB Bank and SBI Bank.

The major Finding of the study are as follows:

- There is no significance relationship between debt and equity ratio in term of fixed deposit to net worth and overall capitalization rates of the banks.
- As Compared to the shareholders equity and the trend of debt/equity ratio was increase every year.
- The study will have significance for management, policy maker, stakeholders of the banks and other those having interest on capital structure decision.

2.2.1.2 Major findings Review of the study

- The long term debt in comparison to their total assets used by all two banks for financing is very minimum or negligible. Hence, the debt to total assets ratio of NCC and BOK is negligible.
- The return of shareholders equity of NCC and BOK is showing increasing trend. The NCC has average return of 23.15 which indicates that the shareholders earn 23.15 paisa investing one rupee. Likewise BOK has average return 15.79. The return of NCC is higher than BOK.
- BOK has the highest long term debt to capital employed ratio i.e. 0.22. This indicates that BOK is using more long term dent for financing its capital. Similarly, NCC has average ratio of 0.19.
- The earning per share explains net income for each unit share. It shows that the market position of the firm. The average earning per share of NCC and BOK is 66.54 and 55.92 respectively. In this analysis we can see that the EPS of NCC is the highest with 66.54 and continuous strong growth in the past 5 years.

- The correlation coefficient between EBIT and DPS of NCC and BOK are 0.27 and 0.73 respectively which is positive. The P.E of all banks is 1.67 and 0.84 respectively which is greater than correlation coefficient (r). So it is insignificant.
- The analysis shows that all the sampled bank under this research study NCC and BOK are able to pay the interest coverage ratio of 1.98. In the case of NCC the trend is increasing with the average of 1.84 which is a good sign.
- On this part of NCC is the front runner with highest average return on assets of 1.49. The overall return of BOK is 1.34.
- The percentage of total debt of firm covered by long term debt is indicated by long-term debt to total debt ratio NCC has 1.47% of average long term debt of total debt ratio and BOK is 0.97%. In all three cases the total debt is contributed by current liabilities to large extent. The analysis of all two banks reveals the fluctuating trend of long term debt to total debt ratio. NCC and BOK have stopped using long term debt.
- Dividend per share is the earning distributed to ordinary shareholders. The analysis shows that BOK paid the highest DPS on average with 16.32. It didn't pay DPS to its ordinary shareholders in F/Y 2006/07, 2006/07 and 2010/11 while DPS of NCC on an average is 15.
- The debt to equity ratio shows that the claim of creditors on the total assets of the company. The trend analysis shows fluctuating trend in all the sampled banks used for this study. The average debt to equity ratio of NCC shows that the creditors have 21% claims on the assets of NCC. It shows that the bank has used higher amount of debt for financing and has highest amount to be paid as interest on debt. BOK has lowest debt to equity ratio among two banks with average of 0.098.
- Under the NI approach the interest rate and the cost of equity are dependent of the capital structures with the increased use of leverage overall costs of capital declines and the total value of firm raise. On the contrary, we can assume that NCC has bad capital and lowest value of firm.
- NCC has positive correlation between TD and SHE of 0.96 and its respective P.E is 0.14 which is less than correlation coefficient i.e. relationship between TD and SHE is significant. In case of BOK the correlation coefficient is 0.92 and its respective P.E is 0.28 which is also less than correlation which shows that the value of ' r ' is significant. Ratios between long term debt and earning per share of NCC, BOK are 0.63 and

0.56 respectively and show positive correlation but P.E is greater than that of calculative value (r). So, it is significant.

- The correlation coefficient between EBIT and interest of all two sampled bank under this study are positive. The entire two banks have significant value since it is greater than P.E.
- Net Operating Income (NOI) approach is an independent hypothesis of capital structure. Any change in leverage will not lead to any change in the total value of firm and market price of the share. The value of NCC is higher with 4.73% whereas BOK is 4.68%. So we can say that BOK has optimum capital structure than NCC. The financial leverage analysis helps to evaluate the financial risk of the firm. The average degree of NCC and Bok are 2.19 and 2.03 respectively from the analysis. So, we can say its EPS is quite volatile. Meanwhile, BOK is bearing the lowest risk between the two.

Shakya(2005) has concluded research on "*Study on Capital Structure Management of Gorakhkali Rubber Udyog Limited*". It was analyzed all the variables in the form of ratio analysis.

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

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

Khadka (2006) on the comparative evaluation of Capital Structure between Butwal Spinning Mills Ltd. And Jyoti Spinning Mills Ltd., analyzed the Capital Structure of these companies by using financial and statistical tools. He has concluded his study as:

- Both the sample companies have high debt equity ratio and are highly levered and increased financial risk to the considerable extent.
- Both the companies have positive correlation coefficient between long-term debt and shareholders' equity. Or there is significant relationship

between long-term debt and shareholders' equity. But there is no significant relationship between interest payment and EBIT.

- Total debt has not been fully utilized in the management of assets.
- Debt removing capacity is weak in both the companies. And return on capital employed is not significant.
- Both the companies have negative overall capitalization and equity capitalization rate but the market value per share of those companies are higher than the par value.

Acharya(2007) conducted the study on "Capital Structure Position in Arihanta Multi Fiber Ltd." In this study he concluded that the long term debt financing to acquire fixed assets. The interest on capital employed ratio seems to be low as it fails to pay off interest. The return on owner's equity is negative, which indicated that debt capacity to generate income is too favorable. Debt to equity ratio is high, which shows the outsider claims on return are greater than that of equity holders. These all shows that the financial risk of the company is in increasing trend.

Shrestha(2008) : A Study on Capital and Assets Structure of Nepal Bank Limited" analyzed the different financial aspects of NBL and remarked that the total deposit and total investment were not significantly related. It was

concluded that the worth was used in unproductive assets of the bank and further recommended that the bank needs to have productive use of its net worth.

Dahkal(2009) has conducted research on "An Evaluation of capital Structure of Bottlers Nepal's Limited" suggested that the management must bring a satisfactory compromise among the confusion of cost , risk control and timing. It was found that the company did not have a proper balance of debt and equity. The debt capital was comparatively higher than equity, so the company is regarded as highly levered company. It was suggested that, in order to bring down the amount of debt capital, company should retire debt capital by issuing additional equity shares and further suggested that the company should maintain the general norms of capital structure optimal.

Karki(2010) has conducted research on "A Study on Capital Structure of Industrial Public Enterprises". In this study, effect of leverage was tested and measured was tested and measured the relationship between capital investment and earnings generations and also measured the relationship of capital structure with profit.

Under this study, it was concluded that the overall result was unsatisfactory and suggested improving their self efficiency in the financial performance. Furthermore, it was advised that the subsidy and donation should be reduced where has been the main cause of inefficiency of the management.

Thapa(2010) in the analysis of capital structure of selected public enterprises has concluded that the selected public enterprises under study have a very confusing Capital Structure since the corporations are not guided by the objectives based on financial plan and policies. In many instances ad-hocism become the basis of Capital Structure and in that also, most of them, want to eliminate debt if possible to relieve financial obligations. He has also suggested that, the debt equity ratio should neither be highly levered to create too much financial obligations that lie beyond capacity to meet nor should it be much low levered to infuse operation strategy to by pass responsibilities without performance and the calculation of the equity capitalization rate according to given data provide very fantastic results in many cases, although they carry valid and meaningful result in some instances.

2.3 Research Gap:

Previous researcher analyzed the capital structure by using secondary source of information in terms of credit practices or capital structure. But actually speaking, capital structure management can be determined by various factors. Among of them, banking environment and management quality in terms of credit may be the strong determinate for capital structure management in banks. In Present context, these are the heart issue in Nepalese commercial banks. The previous scholars could not submit the present facts . Present study tries to define capital structure management by applying those various facts. It can be very useful or important in this area. Thus, present study may be valuable piece of research work.

CHAPTER- III

RESEARCH METHODOLOGY

3.1 Introduction

Research is a process of searching specific problem to solution again. The research will explore again and again to get the appropriate findings. Research methodology that explains the methods used in the study including presentation of the research design, population and sample, sources and types of data, data gathering instruments and procedures, tools and techniques of analysis and assumptions of the study. This research has an ultimate concern with the applicability and effectiveness of NPA in commercial banks. So, it requires an appropriate research methodology.

3.2 Research Design

A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. The research design is the conceptual structure within research is conducted. In this study first of all data are collected and presented in abutted in diagram and various financial and satirical tools will be used to analysis the data. The analysis data will be interpreted for the conclusion.

3.3 Nature and Sources of Data

This study is mainly based on secondary data. These data are collected from published sources like, annual report, balance sheet, prospectus, newspaper, journal, web sites and other sources. Besides this in some case as per research need. The secondary data published on annual reports of concerning organizations. The secondary data are extracted from published annual reports of the bank, published articles, journals, reports, previous related studies etc.

3.4 Population and Sample:

A small portion chosen from the population for studying its properties is called a sample and the number of units in the sample and the number of units in the sample is known as the sample size. The method of selecting for study a small portion of the population to draw conclusion about characteristics of the population is known as sampling. Sampling ambry be defined as the selection of part of the population

on the basis of which a judgment or inference about the universe is made. (Sharma & Chaudhary,2058:173)

Here only 2 sample commercial banks are selected out of 32 commercial banks. For selecting the samples, non-random sampling method is used here among different methods. The samples are taken only from commercial banks. Organization under study is as follows, whose general introduction and major objectives are presented in chapter one. The sample organizations are as follows;

- 1. Nepal Credit and Commerce Bank Ltd.**
- 2. Bank of Kathmandu**

Likewise, financial statements of five year(beginning from 2006/07 to 2010/11 are selected as samples for the purpose of it.

5.5 Data Collecting Procedure

Even this study is based on secondary data, adequate effort and time is given to get these essential materials, Annual reports of concerned banks, annual report of SEBO are obtained from respective offices. To some extent opinion survey or informal interview and questionnaire are conducted to obtain more information prove the reliability of the different published data. Various published data cannot be used in their original form due to poor data base. Thus for analysis purpose further these data need to be verified and simplified. Available data, information and figures are rechecked and tabulated in the analytical manner with supporting interpretations.

3.6 Data Processing Procedures

The information and data obtained from the different sources are in row form. From that information, direct presentation is not possible. So it is necessary to process data and converts it into required form .After then only, the data are presented for the study. This process is called data processing. For the study, only required data are taken form the secondary source and presentation, different tables are used. Likewise, in some case graphical presentation is also made. The calculations that are related to this study are done with the help of scientific calculator as well as computer software program.

3.7 Tools and Techniques Employed

As mentioned earlier, this study is confined to the single analysis of capital structure and profitability of the private commercial bank. To reach the objectives, the collected data are computed and analyzed using statistical and financial tools.

3.7.1 Financial Analysis

A widely used tool for the financial analysis statement so that the strength and weaknesses use of ratio to interpret the financial statement so that the financial statement so that the strength and weaknesses of a firm as well as its historical performance and current financial condition can be determined. Management should be able to analyze the financial strength so as to find out the weakness of the company and erase them out by making rational decision. In other words, management may have different types of weaknesses, which may be the causes of unsuccessful organization. So the company should use an analytical tool to know about its own situating and take a suitable and corrective action to relieve from arisen problem. The most useful tool of financial analyses is ratio analysis.

Various ratios can be computed but ratio which is directly related with the study of leverage and profitability are computed and analyzed in this study.

1. Long term Debt to total Debt Ratio

It specifies the contribution of long term debt holders to the total debt of the company. It is calculated by Long term debt divided by the total debt.

$$\text{Long term debt to Total debt} = \frac{\% \text{ Long term debt (LTD)}}{\text{Total debt}}$$

2. Long term Debt to Shareholder's Equity Ratio

This ratio also measures the leverage risk of the company. It specifies the contribution of owner to the total capital. It can be calculated by the long term debt divided by shareholders' equity

$$\text{Long-term debt to shareholders' equity} = \frac{\text{Long term debt (LTD)}}{\text{Shareholder's equity}}$$

Higher ratio indicates the higher contribution of owner than creditors. It also indicates the lower leverage risk and vice versa.

3. Total Debt to Shareholder's Equity Ratio

The total debt to shareholder's equity ratio is vital tool used to analyze the long-term solvency of firm this ratio equals the firm's debt divided by its equity, where debt can be defined as total debt or as long-term debt. Thus, it is computed as:

$$\text{Total debt to shareholder' equality} = \frac{\text{Total debt}}{\text{Shareholder's equity}}$$

Higher ratio indicates the comparatively higher contribution of debt holders than shareholder. It also indicates that at the time of liquidation higher portion of total assets will be claimed by the debt holders.

4. Total Debt to Total Assets Ratio

It is commonly known as debt ratio. It specifies the contribution of debt holders to the total assets of the firm. It is measured by using following formula.

$$\text{Total Debt to Total assets} = \frac{\text{Total debt}}{\text{Total assets}}$$

Higher ratio specifies the higher leverage risk or higher contribution of debt holders to the total assets. Too high ratio leads the carelessness of shareholder to the business activities.

5. Shareholder's Equity to Total assets

This ratio also indirectly measures the leverage risk of the company. It can be computed either subtracting debt ratio from 1 or using following formula.

$$\text{Shareholder's equity to Total assets} = \frac{\text{Share holder's equity}}{\text{Total assets}}$$

Higher ratio indicates the lower assets and vice versa.

6. Interest Coverage ratio

This interest coverage ratio also known as the time interest – earned ratio is one of the most conventional coverage ratio used to test the firm's debt servicing capacity . This ratio show the number of times the interest charges are covered by funds that are ordinarily available for their payment. This interest coverage ratio is thus computed as;;

$$\text{Interest coverage ratio} = \frac{\text{EBIT}}{\text{Interest}}$$

Higher ratio indicates the strong debt service capacity of the company and vice versa. Too high ratio refers the unused debt capacity of the company.

6. Long Term Debt to Capital Employed

The ratio is used to express the relationship between long-term and capital employed by the firm . It shows the proportion of long term debt and shareholder's fund in the capital structure. This ratio is calculated as;

$$\text{The Long term Debt to Capital Employed} = \frac{\text{Long Term Debt}}{\text{Capital Employed}}$$

The higher ratio of long term debt to capital employed ratio shows the higher contribution of long term debt to the capital structure and vice versa.

7. Return on Shareholder's Equity (ROE)

A return on shareholder's equity is calculated to see the profitability of owner's investment. The shareholder's equity induces paid –up share capital share. Premium and reserves and surplus less accumulated losses. The return on shareholder's equity is net profit after taxes divided by shareholder's equity.

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

Higher ratio is more efficient of management and utilization of shareholder's funds and vice versa.

8. Return on Assets (ROA)

A ratio between net profits to assets is known as return on assets. But generally return on asset can express the relationship between net profit after taxes and total assets.

$$= \frac{\text{Net profit after tax}}{\text{Total assets}}$$

Higher ratio implies that the available source and tools are employed efficiently.

9. Earnings per share (EPS)

The income per share of common stock is known as earning per share . This ratio is mostly used in capital structure to know the availability of return for shareholders. This earnings per share are calculated by dividing the profit after taxes by the total number of common share outstanding .

$$\text{EPS} = \frac{\text{Net profit available to common shareholders}}{\text{Number of share outstanding}}$$

The increasing EPS means the increasing return for shareholders.

10. Dividend per Share (DPS)

Dividend per share is the earning distributed to ordinary shareholders dividend to ordinary shareholders dividend by the number of ordinary shares outstanding .

$$\text{DPS} = \frac{\text{Dividend}}{\text{Number of share outstanding}}$$

11. Overall Capitalization rate Under NI approach

The NI approach known as relevant theory of capital structure is already discussed in former chapter .Hence , the formula used to compute the value of the firm and overall capitalization rate under NI approach is given . Market value of the firm = market value of debt + Market value of stock .

$$\text{Or. } V = B + S$$

$$\text{And , Overall capitalization rate} = \frac{\text{EBIT}}{\text{Value of the Firm}}$$

Or,

$$K_0 = \frac{\text{EBIT}}{V}$$

12. Equity capitalization Rate under NIO approach

The equity is one of the sources of capital, which has its own cost and it is known as cost of equity. A large amount of equity means the higher amount of cost of equity. The equity capitalization rate under NIO approach can be calculated as,

$$\text{Equity capitalization rate} = \frac{\text{EBT}}{\text{Market Value of common share}}$$

Or,

$$K_e = \frac{\text{EBT}}{S}$$

3.6.2 Statistical Analysis

Statistical tools are equally important to meet the objectives of this study . This will help us to analyze the relationship between two or more variables. For this research following statistical tools is used they are:

- Arithmetic Mean
- Standard deviation
- Karl Pearson's coefficient of correlation
- Probable error

- **Arithmetic mean**

Arithmetic mean also called the mean or average arithmetic mean is the most popular and widely used method of central tendency . It is the ratio of sum of all observations. It is calculated from ungrouped data and frequency.

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

Where,

\bar{X} = Mean Average

\sum = Summation

N = No. of Years

- **Standard Deviation**

Standard deviation is the most popular and most useful measure of dispersion and gives uniform correct and stable results. The main characteristics of standard deviation are that, it based on mean. Furthermore a standard deviation is always a positive number and it is superior to the mean deviation. A standard deviation is the positive square root of average sum of squares of deviations of observations from the arithmetic mean of the distribution.

$$SD = \sqrt{\frac{\sum (X - \bar{X})^2}{N-1}}$$

Where,

SD = Standard deviation

\sum =Summation

N = No of Years

X= Sample Date

—
 \bar{X} = Average mean
N = No. of Years

- **Correlation Coefficient (r)**

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

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

Where,

N = number of observation.

X and Y are variables.

The decision Criteria:

When,

r = 0, there is no relationship between the variables.

r = 1, the variables are perfectly positive correlated

r = -1, the variables are perfectly negative correlated.

- **Probable Error (P.E)**

The Degree of reliability of computed correlation can be judged with the help of its probable error (P.E) It can be calculated as:

$$\text{P.E} = \frac{6 \times 0.6745 \times (1-r^2)}{\sqrt{N}}$$

Where,

r = correlation co- efficient.

N = number of pairs of observation.

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

CHAPTER-IV

DATA PRESENTATION AND ANALYSIS

Data presentation is the interpretation of the study. Data analysis summarized the collected data and its interpretation presents the major findings of the study. Analysis is not complete without interpretation and interpretation cannot proceed without analysis. In this course of analysis, data gathered from. The data have been analyzed by using financial and statistical tools. The results of the computation have also been summarized in appropriated tables. The samples of computation of each model have been included in annexes. This chapter included presentation of data and analysis of that data to reach at a conclusion.

4.1. Ratio Analysis:

4.1.1 Debt to Equity Ratio:

Debt to equity ratio is used to show the relationship between borrowed funds and owners capital. It reflects the relative claims of creditors and shareholders against the assets of the firm. It is an important tool for the financial analysis to appraise the financial structure of a firm. The ratio reflects the relative contribution of owners and creditor's capital of business in its financing. In other word, this ratio exhibits the relative proportions of capital contributed by ownership and creditors. Debt to equity ratio can be calculated in the basis of shareholders equity includes reserve and accumulated profit, preference share and equity share capital. Where long term debt includes total debt minus short term debt or current liabilities, here debt equity ratio is also computed by simply dividing long term debt of the firm by shareholder equity. The higher debt to equity ratio shows the large. Share of financing in the capital by the creditors then the owners or it's also reflects that the creditors claim in higher against the assets of firm and vice versa. D/E ratios of concerned companies are shown in the following table that is referred from the appendix 4

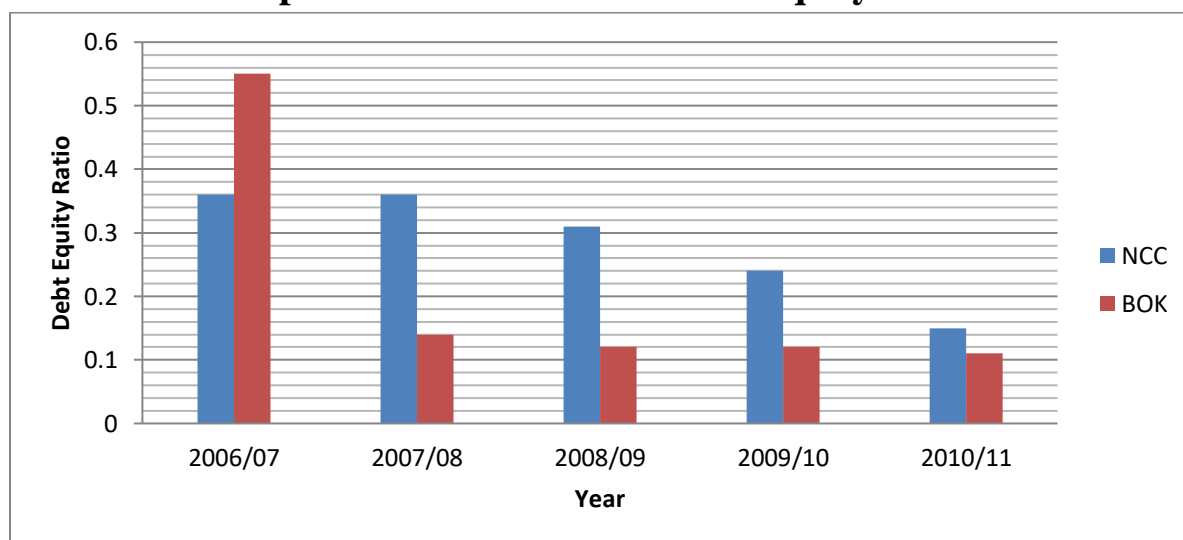
$$\text{Debt to equity ratio} = \frac{\text{Long term debt}}{\text{Shareholder's equity}}$$

Table No. 4.1
Comparative position of Debt to Equity Ratio:

F/y	Debt to equity (%)	
	NCC	BOK
2006/07	0.36	0.55
2007/08	0.36	0.14
2008/09	0.31	0.12
2009/10	0.24	0.12
2010/11	0.15	0.11
Average	0.18	0.098

Appendix:4

Figure No.4.1
Comparative Position of Debt to Equity Ratio



The debt to equity ratio and average ratio has been calculated in the above table five years data has been presented here.

The table shows that D/E ratios of NCC, BOK and BOK. The D/E ratio of NCC is nil in fiscal year 2006/07. In fiscal year 2007/08, 2008/09, 2009/10 and 2010/11. B.S D/E ratio is 0.36, 0.31, 0.24 and 0.015 respectively. The average ratio is 0.18.

Similarly, the debt to equity ratio of BOK in fiscal year 2006/07 is nil. Because the bank has not used long term debt in this fiscal year. In fiscal year 2007/08, 2008/09, 2009/10 and 2010/11 the debt to equity ratio is 0.14, 0.12, 0.12 and 0.11 respectively. The average debt to equity ratios 0.098.

4.4.1 The interest coverage ratio:

It is useful tools to measures long term debt serving capacity of the firm. It is also known interest earn ratio. Interest is fixed charges of the companies, which is charge in long term andshort term loan. Generally interest coverage ratio measured the debt serving capacity of a firm and it is concerned with long term loan. It shows how many times the interest charges are covered by EBIT out of which they will be paid. This ratio is used the concept of net profit tax is calculated after paying interest on loan. This ratio examines the interest paying capacity of the firm by how many times the interest charge is covered by EBIT.

Interest coverage ratio is calculated dividing by EBIT by interest.So, it is necessary to analyze EBIT and interest. This ratio is useful to measure long term debt serving capacity of the firm may imply unused debt capacity and firm has greater capacity to handle fixed changes liabilities of creditors. Whereas, low ratio is a signal that the firm is using excessive debt and does not have the ability to offer assumed payment of interest in the following table

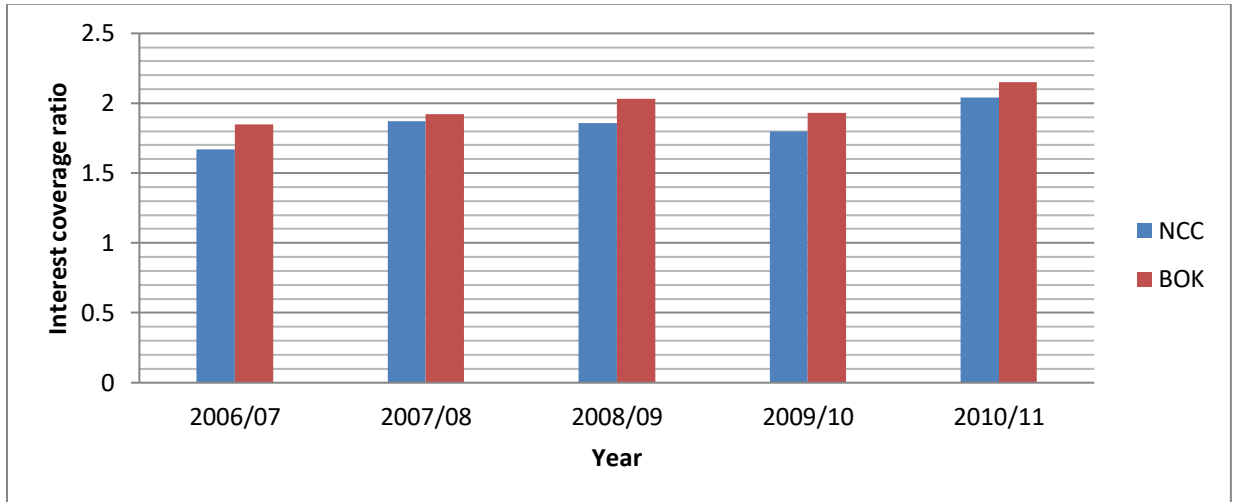
$$\text{Interest Converge Ratio} = \frac{\text{EBIT}}{\text{Interest}}$$

Table No:4.2
Comparative position of Interest Coverage Ratio:

F/y	Debt to equity (%)	
	NCC	BOK
2006/07	1.67	1.85
2007/08	1.87	1.92
2008/09	1.86	2.03
2009/10	1.80	1.93
2010/11	2.04	2.15
Average	1.84	1.98

Source; Appendix: 5

Figure No.4.2
Comparative Position of Interest Coverage Ratio



In the above table and figure it is shows that the interest coverage ratio of NCC, BOK and BOK. The interest coverage ratio of NCC is 1.67, 1.84, 1.86, 1.80 and 2.04 in fiscal 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 respectively. The average ratio of BOK is 1.98

Similarly the interest coverage ratio of BOK in fiscal year 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 is 1.85, 1.92, 2.03, 1.93 and 2.15 respectively . The average interest coverage ratio of BOK is 1.98.

4.1.3 Return on Total Assets:

Return on total assets ratio measures the profitability of bank that explains a firm to earn satisfactory return on all financial resources invested in the banks assets. The ratio explains net income for each unit of assets.

Higher ratio indicates efficiently in utilizing it's overall resources and vice-versa. From the point of view of judging operational efficiency, rate of return on total assets is more useful measures.

The return on total assets ratio is calculated using the following formula below:

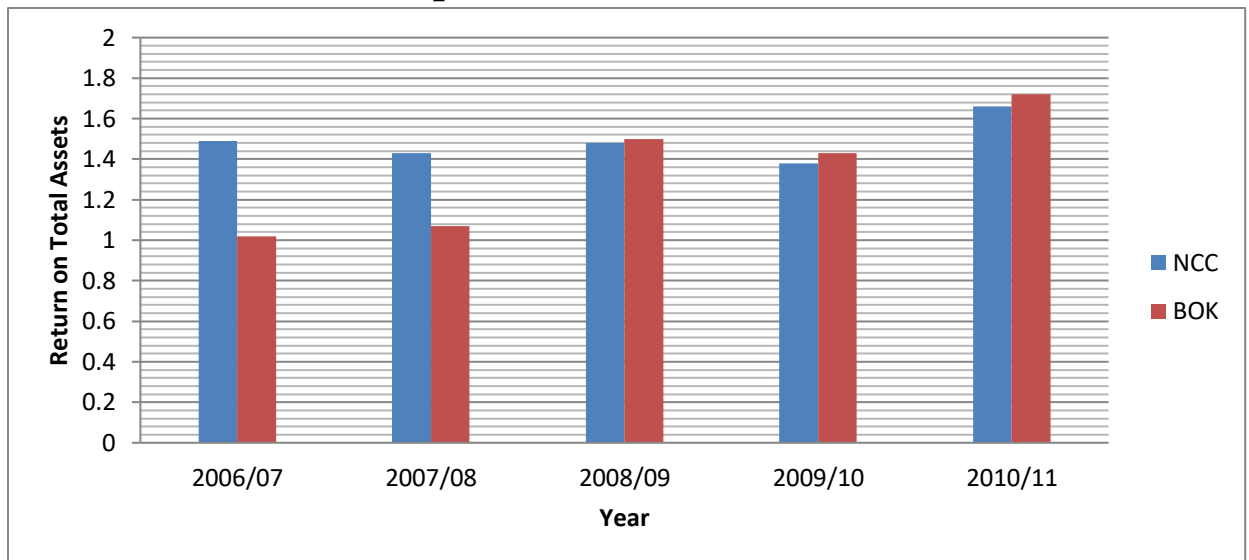
$$\text{Return on Total Assets} = \frac{\text{Net profit after tax}}{\text{Total assets}}$$

Table No:4.3
position of Comparative Return on Total Assets:

F/y	Debt to equity (%)	
	NCC	BOK
2006/07	1.49	1.02
2007/08	1.43	1.07
2008/09	1.48	1.50
2009/10	1.38	1.43
2010/11	1.66	1.72
Average	1.49	1.34

Source; Appendix 6

Figure No.4.3
Positio of Comparative Return on Total Assets.



The above table and figure shows the comparative position of return of total assets of the three joint venture bank. From the table, The return on total assets of NCC in fiscal year 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 are 1.49, 1.43, 1.48, 1.38, and 1.66 respectively. The average ratio is 1.49

The return on total assets of BOK is fiscal year 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 are 1.02, 1.07, 1.50, 1.43 and 1.72 respectively. The average return of this bank is 1.34.

Likewise, the C.V of BOK is 49.07 which is higher than other sample banks and the NCC has lowest C.V than other sample bank which is 7.38.

4.1.4 Return on shareholder's equity (ROE)

Shareholders fund represents that part of long term source of funds which is collected by using equity share and preference shares. To measure the return earn by shareholder's return on shareholders' equity is used or this ratio is calculated to find out the profitability on the owners capital or investment.

Since shareholders' are the owners of the company they want to have good return on their investment. So, for this we use this return on shareholder equity ratio to measure the return of shareholders This ratio helps to analyze whether the company has been able to providing higher return on investment to its owners or not.

If the company's earning is good, shareholders earning is greater than outside investors because they are ultimate owners and they are bearing high risk as well. But outside investors get return before the owner that is fixed. Shareholder gets the return after is paying the fixed interest charge to the creditors and tax to the government. Earnings after tax (EAT) are the profit of the shareholder. Therefore this ratio is calculate on the basis of equity. This ratio is calculated as:

$$\text{Return on shareholders' equity} = \frac{\text{Net Profit after tax}}{\text{Shareholders' equity}}$$

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

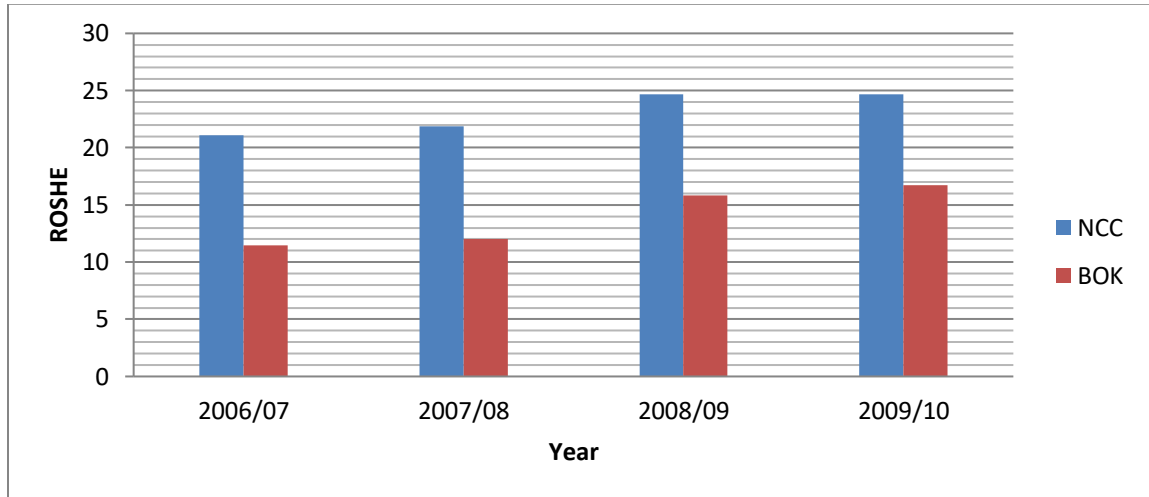
Position of Comparative ROSHE:

Table No:4.4

F/y	Debt to equity (%)	
	NCC	BOK
2006/07	21.10	11.48
2007/08	21.86	12.00
2008/09	24.66	15.85
2009/10	24.67	16.72
2010/11	23.49	19.90
Average	0.15	0.22

Source; Appendix 7

**Position of Comparative ROSHE:
Figure No.4.4**



Above table exhibit, return on shareholders’ equity of sampled bank’s of our study. In case of NCC in the fiscal year 2006/07, the ratio is 21.10 that implies that one rupee investment by shareholders equity earned 20 paise in one year. In the fiscal year 2007/08 it decrease to 21.86 and it remain constant in fiscal year 2009/10 it also decrease to 24.67 in fiscal year 2010/11. The average ROSE us 23.15.

Similarly in case of BOK, the return in shareholders equity on fiscal year 2006/07, 2007/08, 2008/09, 2009/10, and 2010/11 are 11.48, 12, 15.85, 16.72 and 19.90 respectively. The average ratio is 15.79.

4.1.5 Earning per Share:

The profitability of bank from the view point of ordinary shareholders is earning per share or EPS. This ratio explains net income for each unit of share. It also shows how much of the total earning belongs to the ordinary shareholders. EPS is calculated as:

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

EPS of an organization gives the strength to the company’s share in the market.

Position of Comparative Earning per share:

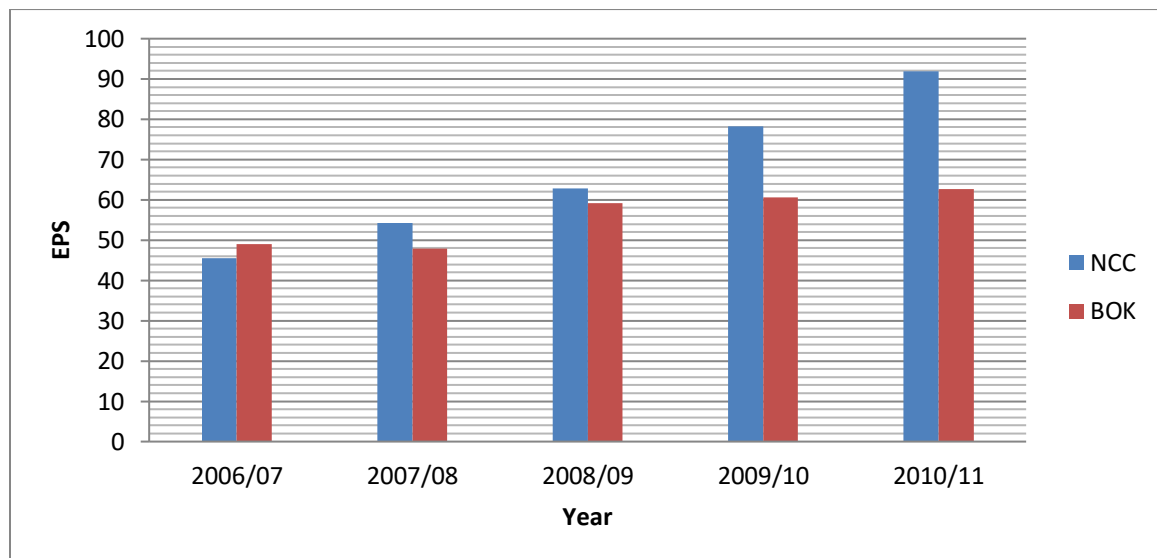
Table No:4.5

F/y	Earnings per share (in Rs.)	
	NCC	BOK
2006/07	45.58	49.05
2007/08	54.22	47.91
2008/09	62.78	59.24
2009/10	78.30	60.66
2010/11	91.82	62.74
Average	66.54	55.92

Source; Appendix 8

Position of Comparative Earning per share:

Figure No.4.5



In the above table, it is shows that the comparative position of EPS of different bank. In case of NCC the earning per share in fiscal year 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 and 45.58,54.22,62.78, 78.30 and 91.82 receptivity. The average EPS ratio is 66.54.

Similarly the EPS of BOK in the fiscal year 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 are 49.05, 47.91, 59.24, 60.66 and 62.74 restively. The average EPS is 55.92.

4.1.6 Debt to Total Assets Ratio:

Total debt to total assets ratio express the relationship between creditors fund and total assets. It is also the leverage ratio, which is generally called the debt ratio. This type of capital structure ratio is variant of debt equity ratio. Calculating debt to total assets is one calculation approach of the debt to capital ratio. Debt includes all loans and total assets of the firm. It Measures the percentage of total funds provided by creditors.

This ratio can be calculated by simply dividing long term debt by the total assets of the firm.
$$\text{Total to total assets ratio} = \frac{\text{Total debt} \times 100}{\text{Total assets}}$$

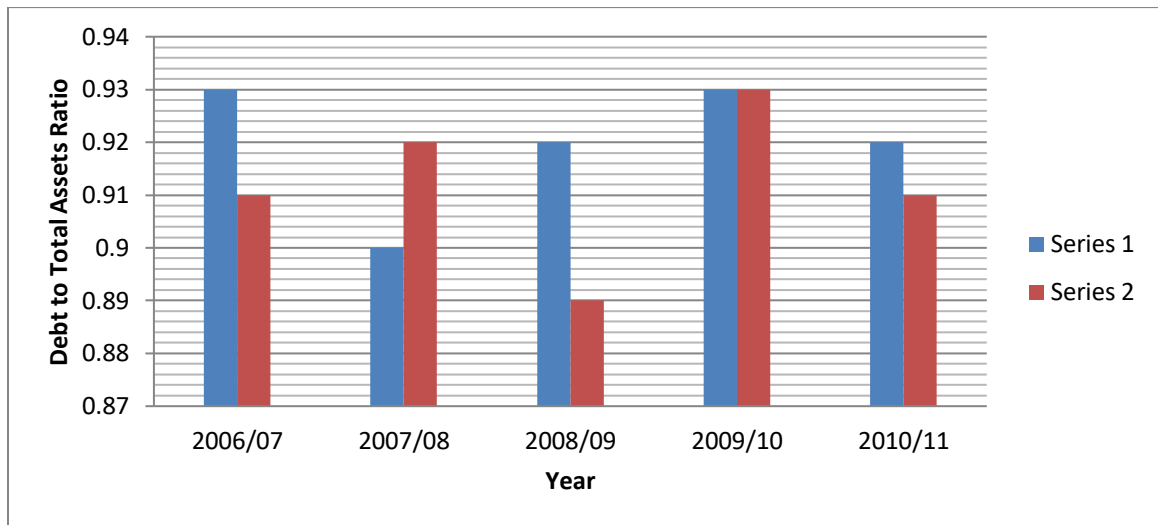
Table No:4.6
Comparative Position of Debt to Total Asset Ratios:

F/y	Total debt to total assets (%)	
	NCC	BOK
2006/07	0.93	0.91
2007/08	0.90	0.92
2008/09	0.92	0.89
2009/10	0.93	0.93
2010/11	0.92	0.91
Average	0.92	0.91

Source; Appendix 3

Figure No; 4.6

Comparative position of Debt to Total Asset Ratios.



All the simple banks have negligible long term debt in comparison to total assets. Hence, the debt ratio or debt to total assets ratio of NCC and BOK is negligible. Therefore the debt ratio or debt to total assets ratio of NCC and BOK is negligible. Therefore the debt ratio is insignificant.

The S.D of NCC and BOK is 0.014 and 0.015 respectively. Here, the C.V of BOK is higher than NCC

4.1.7. Long Term Debt to capital Employed ratio:

The optimal capital structure has important relationship with the long term debt to capital employed ratio. This relationship suggests the portion of long term debt and capital of the firm. This ratio highlights the need of long term debt in the capital of the firm. Long term debt includes the debt, which matures in more than one accounting period whereas capital employed included long term debt and shareholders' equity of the firm. The relationship of long term debt and capital employed can be analyzed by establishing the ratio, larger the proportion of the long term debt in the capital employed and vice versa. This ratio can be calculated by dividing the long term debt with capital employed by the firm. This ratio is also known as debt to permanent capital ratio, where as permanent capital means total assets minus current liabilities. The long term debt to permanent capital ratio is presented in following table:

Table No. 4.7

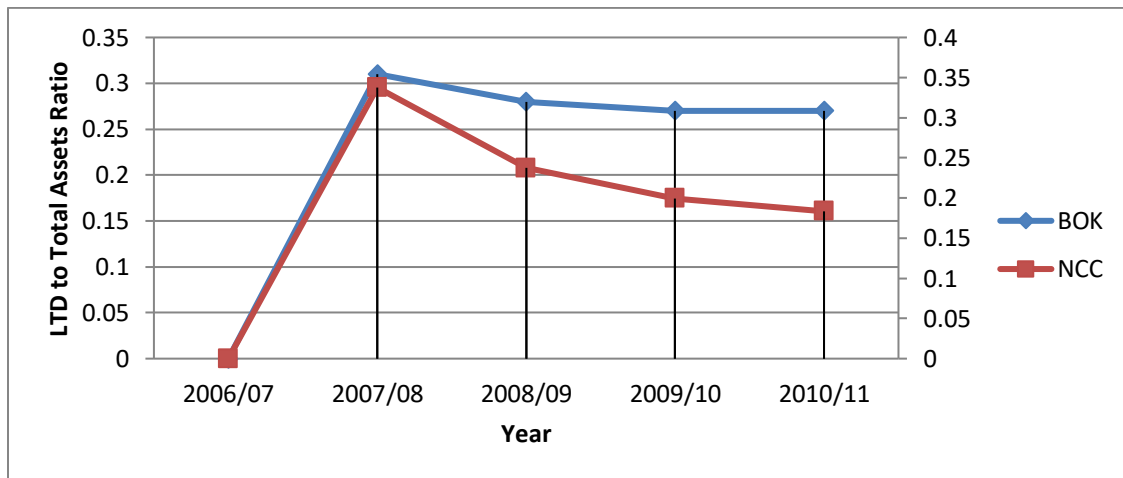
Comparative position of Long term Debt to Capital Employed Ratio:

F/y	Long term debt to Capital Employed (Time).	
	NCC	BOK
2006/07	0.3210	0.10
2007/08	0.3376	0.31
2008/09	0.2375	0.28
2009/10	0.1997	0.27
2010/11	0.1835	0.27
Average	0.1917	0.22

Source; Appendix 2

Figure No: 4.7

Comparative position of long Term Debt to Capital Employed Ratio:



The above table and figure show that the long term debt to capital employed ratio of different joint venture bank. The long term debt to capital employed ratio of NCC in fiscal year 2006/07, 2007/08, 2008/09, 2009/10, 2010/11 is 0.338, 0.238, 0.199 and 0.183 respectively. The average ratio is 0.191.

Similarly, the long term debt to capital employed ratio of BOK is in fiscal year 2006/07 is Nil. Because the BOK does not use long term debt. In fiscal year 2007/08, 2008/09, 2009/10, 2010/11 is 0.31, 0.28, 0.27, 0.27 respectively. The average ratio is 0.22

Here, the S.D of NCC and BOK is 0.12 and 0.13 respectively. BOK has higher S.D than BOK.

The lowest C.V is 59.09 for BOK. The C.V is ranging between 59.09 to 88.89. And the C.V is 62.60 and 59.09 for NCC and BOK

4.1.8. Long term debt to total debt ratio:

The relationship between long term debts to total debt has a decisive impact on the financial structure of the companies. This relationship indicates what percentage of Total debt is covered by long term debt of the firm. Normally firms used short term and long term debt. Current liabilities and provisions are also needed during the operation of the firm. Simply dividing long term debt by the total debt can derived the relationship between the long term debt by the total debt can derived the relationship between the long term debt included all types of borrowed fund, current liabilities and provision. If the firm used large amount of short term loans and over current liabilities and provision in the larger amount, the percentage of long term debt will be low and vice versa. The higher ratio of long term debt holders upon the total debt and the lower ratio indicate the higher portion of short term loans and urgent liabilities in the total debt of the firm. The amount of liabilities used depended upon the liquidity of that firm. This relationship of long term debt and total debt is presented in the following table along with percentage change in that ratio to show the movement of trend individually. In addition the average(standard) ratio is also calculated to compare with each other. But the details calculation is shown in the appendix

$$1. \text{Long term debt ratio} = \frac{\text{Long term debt} \times 100}{\text{Total debt}}$$

Long Term Debt and Total Debt position

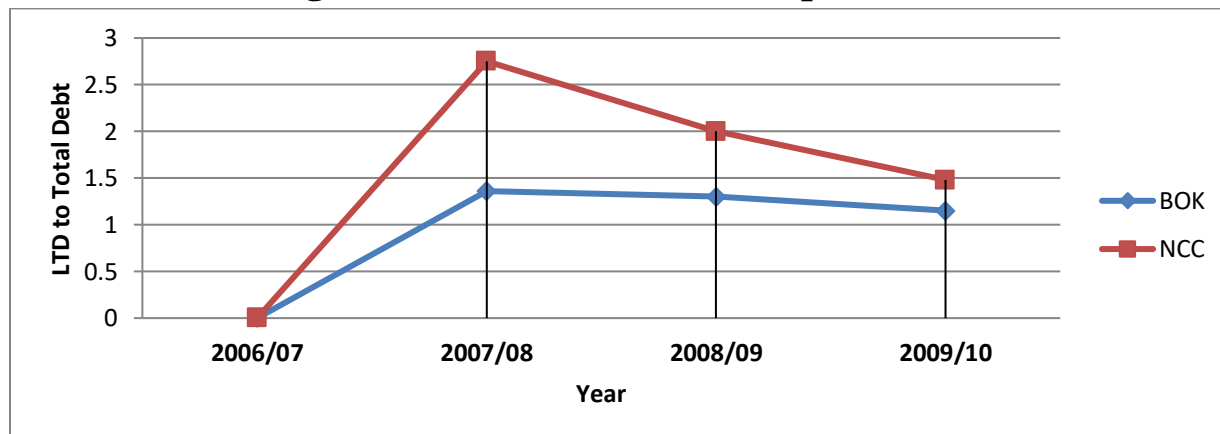
Table No. 4.8

F/y	Long term debt to Total debt (%)	
	NCC	BOK
2006/07	2.15	0.22
2007/08	2.75	1.36
2008/09	2.00	1.30
2009/10	1.48	1.15
2010/11	1.10	1.06
Average	1.47	0.97

Source; Appendix 1.

Figure No: 4.8

Long Term Debt and Total Debt position



The table and figure shows that the ratio of long term debt to total debt of NCC constituted nil in fiscal year 2006/07. This means that NCC does not use long term debt in this fiscal year; the whole portion of debt is contributed by the current liabilities. In the fiscal year 2007/08, the long term debt to total debt of NCC is constituted 2.75%. This means that the contributed portion of long term debt in total debt is 2.75% and the remaining portion is contributed by the current liabilities. This ratio of NCC in F/Y 2008/09 is 2% which is decreased then previous year and then decreased to 1.48% in F/Y 2009/10. In f/y 2010/11, this ratio is also decreased to 1.10%. The company has 1.47 of average long term debt to total debt ratio.

In case of BOK, it shows in the fiscal year 2006/07, the ratio is nil. This means that BOK has no long term debt in this year. In 2007/08, the long term debt to total debt ratio of BOK is 1.36% by the current liabilities. This ratio of BOK in fiscal year 2008/09 is 1.30% which is decreased then decreased to 1.15% in fiscal year

2009/10. In fiscal year 2010/11 this ratio is also decreased to 1.60%. The company has 0.79% of CWE long term debt to total debt ratio.

4.1.9 Dividend per share(DPS):

Dividend per share is calculated to down the share of dividend that the shareholder received in relation to paid up value of the share. An institution offering a high dividend per share is regarded as efficient in fulfilling shareholder's expectation which will also increase the value of an institution. It is calculated by using following equation.

$$\text{DPS} = \frac{\text{Total dividend}}{\text{No. of ordinary shares}}$$

Dividend per share is the earning distributed to ordinary shouldered dividend by the number of ordinary share outstanding.

Position of Comparative DPS:

Table No: 4.9

F/y	Dividend per share (DPS)	
	NCC	BOK
2006/07	20	20
2007/08	17	11.58
2008/09	25	30
2009/10	10	15
2010/11	20	25.04
Average	15	16.32

Source: Appendix 9.

In the above calculation it is shows that the comparative position of DPS of sample bank. In case of NCC the dividend per share of fiscal year 2006/07 is 20%. In the fiscal year 2007/08 the DPS is nil which means the bank has not distribute the dividend. Similarly in fiscal year 2008/09, 2009/10 and 2010/11 DPS are 25,10, and 20 respectively.

Similarly, in case of BOK, the DPS in fiscal year 2006/07 is nil which means the bank has not distribute the dividend. In fiscal year 2007/08, 2008/09, 2009/10 and 2010/11 DPS are 11.58, 30, 25.04 respectively. The average DPS ratio is 16.32

4.2. Analysis of Capital structure;

4.2.1. Net Income (NI) Approach:

Net income (NI) approach is also known as dependent hypothesis of capital structure. The essence of this approach is that the firm can reduce its cost of capital by using debt and total valuation of the firm can reduce its cost of capital leading to increase in the cost of capital thus leading to increase in the degree of leverage. This theory assumes that the cost of debt and cost equity remain constant as change in the firm's capital structure. It gives attention on the overall capitalization rate . According to this theory optimum capital structure is that where the total value of the capitalization rate can be calculated simply by dividing EBIT by the value of the firm.Net operating income.

$$(NOI)=K_o.V$$

Where,

K_o = cost of overall capitalization rate

V = Total market value of the firm.

Comparative position of overall capitalization rate:

Table No. 4.10

F/y	NCC		BOK	
	Cost of Capital(k_o)	Value of firm(v)	Cost of capital (k_o)	Value of firm(v)
2006/07	23.4%	2249.10	18.5%	4911.48
2007/08	19.2%	2877.52	16.8%	6455.03
2008/09	13.6%	5473.25	14.2%	9261.56
2009/10	10.1%	9552.81	12.8%	11584.62
2010/11	8.1%	15874.37	6.8%	25815.98
Average	14.9%	7205.41	13.8%	11605.73

Source: Appendix 10 & 11.

Above computed overall capitalization rate of NCC shows that the costs are 23.4%, 19.2%, 13.6%, 10.1% and 8.1% for the fiscal year 2006/07 to 2009/10 respectively. When the value of the firms were 2249.10, 2877.52, 5473.25, 9552.81 and 15874.34 million respectively. The average cost is 14.9% at average of Rs. 7205.41million.

In the case of BOK the cost are 18.5%, 16.8%, 14.2%, 12.85% and 6.8% from the F/Y 2006/07 to 2009/010 respectively when the value of the firm were rs. 4911.48, 6455.03, 9261.56, 11584.62 and 25815.98 respectively. the average cost is 13.8% at an average of RS. 11605.73 million.

On the basic of NI approach, we can see on the above table that on the decrease in the cost of capital the value of the firm has increase the ratio of debt in the capital structure the cost of capital will decline and the value of firm will increase.

4.2.2. Net Operating Income (NOC) Approach:

It is a dependent hypothesis of capital structure decision of the firm and which is irrelevant to the value of firm and overall cost of capital. Change in leverage will not lead to any change in the total value of the firm and market price of the share as the overall cost of the capital is independent of the degree of leverage. Increase in leverage leads to increase in financial risk of the ordinary shareholder. To minimize the financial risk, the shareholders want a higher return on their investment. Increase in cost of equity (K_o) are exactly offset by using cheaper debt fund keeping k_o constant. So, equity capitalization rate K_e is calculated here by simply dividing EBT by the market value of common equity which is presented in the following table.

Comparative position on effect of Debt on equity:

Table No.: 4.11

F/y	NCC		BOK	
	Cost of Capital(Ke)	Value of firm(v)	Cost of capital (Ke)	Value of firm(v)
2006/07	6.70%	300	5.8%	200
2007/08	6.23%	300	5.2%	360
2008/09	4.55%	300	5.3%	360
2009/10	3.23%	300	4,6%	360
2010/11	2.93%	300	2.5%	360
Average	4.73%	240	4.68%	288

Source: Appendix 12

The equity capitalization rate of NCC in the fiscal 2006/07, 2007/08, 2008/09, 2009/10,2010/11 are 6.70%,6.35%, 4.55, 3.23% and 2.93% respectively. And their respective long term debt are Rs 0.00, Rs 300, Rs 300, Rs 300 and 300 million respectively. The average long term debt is Rs. 240 million.

The equity capitalization rates of BOK in the fiscal year 2006/07, 2007/08, 2008/09, 2009/10, 2010/11 are 5.8%, 5.2%,5.3%, 4.6% and 2.5% respectively and their respective long term debt are Rs 0.00, 360, 360, 360 and 360 million respectively. The average cost is 4.68% at average long term debt of Rs 288 million

4.3. Leverage Analysis:

Leverage and capital structure are closely related concepts linked to cost of capital and capital and capital structure budgeting decision. Leverage results from the use of fixed cost or trends to magnify return to the firm's owner changes in leverage results in changes in level of return and associated risk. Generally increase in leverage result in increase in return and risk where as decrease inleverage result in decrease return and risk. The amount of leverage in firm's capital structure or the mix of long term debt and equity maintained by the firm can significantly affect its value by affecting return and risk. Because of its value the financial Manager must understand how to measure and evaluate leverage when attempting to create the best capital structure.

Generally, Leverage refers to the use of special force of power to have more than normal results from a particular action. Similarly in financial term it is used to

describe about utilization of funds for which the firm has to pay fixed cost and to have more return than normal having more risk as well. Leverage may be used to boost owner's returns but it is used at the risk of increasing losses if the firm's economic fortune declines. Thus gain and losses are magnified by leverage and the higher the leverage employed by the firm, the greater will be the volatility of its return. There are three types of leverage:- Operating leverage, financial leverage and combine leverage. Operating leverage is the function of fixed cost, contribution margin and sales volume.

Financial leverage is the relation between EBIT and EBT and combined leverage is the combine of operating and financial leverage.

The operating leverage is indicates the impact of changes in sales. An operating income and financial leverage exist when the capital structures of the firm comprise debt capital. Financial leverage is related to the capital structures of the firm comprise debt capital. Financial leverage is related to the capital structure of the firm. So, financial leverage is relevant issue of this study, which is explained in this section.

4.3.1 Analysis of Financial Leverage

When the company employs debt or other fund carrying fixed charges i.e, interest in the capital structure, financial leverage exists. If the financial leverage is high the company can have advantage of tax shield but it will affect to owner return i.e, net profit as well .Financial leverage explains the relationship between earning before interest and net profit of the company.

Two methods either dividing percentage change into EPS by percentage change into EBIT or dividing percentage change into EBT by EBIT can calculate degree of financial leverage. In this analysis of financial leverage second method is chosen. The higher the degree of financial leverage the more volatile EPS will be, all other things remaining the same. The degree of financial leverage of sampled banks is presented in the following table. The formula is follows.

$$DFL = \frac{EBIT}{EBT}$$

Comparative position of Financial Leverage:

Table No: 4.12

F/y	Degree of financial leverage	
	NCC	BOK
2006/07	2.50	2.17
2007/08	2.19	2.08
2008/09	2.16	1.97
2009/10	2.14	2.07
2010/11	1.97	1.87
Average	2.19	2.03

Source: Appendix 13

In the above table it shows the comparative degree of financial leverage of sample bank. In fiscal year 2006/07, 2008/09, 2009/10 and 2010/11 is 2.19, 2.16, 2.14 and 1.97 respectively which is in the decreasing trend. The average DFL is 2.19.

Similarly the degree of financial leverage of BOK is in fiscal year 2006/07, 2007/08, 2008/09 is 2.17, 2.08 and 1.97 respectively which is in decreasing trend. But in fiscal year 2009/10 is increase to 2.07. In fiscal year 2010/11 the degree financial leverage is 1.87. The average DFL is 2.03.

4.4 Correlation Analysis:

Correlation analysis enables us to have an idea about the degree and direction of the relationship between the two or more variables, the correlation is statistical tool which studies the relationship between two or more variables and correlation analysis involves various methods and technique used for studying and measuring the extent of the relationship between the two or more variables. It is denoted by 'r' it fails to reflection upon the cause and effect relationship between the variables.

Although there are three types of correlation i.e. simple, partial and multiple correlations but in this study we will give focus on simply correlation based on Pearson's coefficient of correlation. In the following section correlation between different variables are calculated and presented of the banks which are being studies under this research.

- Total debt and shareholder equity.
- Long term debt and earning per share.
- EBIT and Interest.

➤ EBIT and DPS.

4.4.1. Total debt and shareholder equity:

The relationship between total debt and shareholders equity has been shown in the following table below. The total debt includes all types of long term borrowed funds, current liabilities and provision, whereas shareholders quit included share capital, reserve and surplus. This correlation indicates whether there is positive or negative correlation coefficient between TD and SHE and their respective probable error is also presented. PE interprets the value of

correlation coefficient. It also helps to determine applicability for the measurement of reliability of the computed value of the correlation coefficient (r). Details calculations are presented in the appendix 14

Correlation coefficient between TD and SHE with probable error.

Table No. 4.13

NCC		BOK	
Correlation coefficient (r)	Probable 6(P.E)	Correlation coefficient (r)	Probable error 6(P.E)
0.96	0.14	0.92	0.28

Source: Appendix 14

Karl Pearson's correlation coefficient between total debt and shareholders' equity of NCC is 0.96. There is positive correlation between TD and SHE. The probable error 6(P.E) of NCC is 0.14 is less than correlation coefficient (r).

Similarly the correlation coefficient of BOK is 0.92 there is also positive correlation between TD and SHE. Probable Error 6(P.E) of BOK is 0.28 which is less than (r). The value of r in both case is greater than 6PE therefore correlation coefficient (r) will be significance .

So that

$$\begin{aligned}
 S \text{ of } r &= \frac{r}{P.E} \\
 &= \frac{0.92}{0.28} \\
 &= 3.28
 \end{aligned}$$

It is less than 6 times than r so than the correlation coefficient is not significant. There is not good relationship between the variables.

4.4.2 Long term debt and earning per share:

Long term debt is the source of long term financing or long term funds. Company should pay interest for this debt capital. Whereas earning per share (EPS) is earning of a share of a firm from one year business. EPS has positive relationship with companies earning. In this section the relationship between these two variables has been shown using Karl's Pearson's correlation coefficient method. It tries to analyze that the increment in LTD leads to increment in the EPS or not. The calculated correlation coefficient and their respective probable error has been shown in the following table referred form appendix 15.

Correlation coefficient between Long term Debts (LTD) and earning per share (EPS) and their respective 'probable error'.

Table No: 4.14

NCC		BOK	
Correlation Coefficient (r)	Probable error 6(P.E)	Correlation Coefficient (r)	Probable Error 6(P.E)
0.63	1.08	0.56	1.24

Source: Appendix 15

Interpretation

$$\begin{aligned}
 \text{P.E} &= .6745 \frac{1-r^2}{\sqrt{N}} \\
 &= .6745 \frac{1-(0.63)^2}{\sqrt{5}} \\
 &= .6745 \frac{1-0.3969}{\sqrt{5}} \\
 &= \frac{0.406791}{2.2360} \\
 &= 0.1819
 \end{aligned}$$

The correlation coefficient in between NCC and BOK in relation to long term debts and EPS is 0.65 and its P.E is 0.1819 respectively now the value correlation

should be 6 times 7 than P.E, Hence, The value of r in both case is less than 6PE therefore correlation coefficient (r) will be insignificant .

$$\begin{aligned}
 S \text{ of } r &= \frac{r}{P.E} \\
 &= \frac{0.63}{0.1819} \\
 &= 3.46
 \end{aligned}$$

Which is less than 6 times than P.E therefore it should be calculated that the relationship between LTD and EPS of both the bank is not significant.

4.4.3. EBIT and INTEREST:

Long term debt holders get the interest as return and EBIT is operating profit of the company. Here correlation coefficient of interest and EBIT has been presented of concerned companies to analyze whether there is positive or negative correlation between interest and operating profit those are calculation on the basis of Karl Pearson's correlation coefficient. Following table shows the relationship between these variables of sampled banks which are included in this study and to check the significance of these calculated correlations. P.E is also presented which is referred from appendix 16.

Correlation coefficient between EBIT and INTEREST and their respective probable error.

Table No: 4.15

NCC		BOK	
Correlation Coefficient (r)	Probable error 6(P.E)	Correlation Coefficient (r)	Probable Error 6(P.E)
0.85	0.08	0.99	0.04

Source: Appendix 16

The correlation coefficient of NCC is found to be 0.85, where as the probable error is calculated as

$$\begin{aligned}
 P.E &= 0.6745 \frac{1-r^2}{\sqrt{N}} \\
 &= 0.6745 \frac{1-(0.85)^2}{\sqrt{5}} \\
 &= 0.6745 \frac{1-0.7225}{2.23}
 \end{aligned}$$

$$= 0.08$$

The value of r in both case is greater then 6PE therefore correlation coefficient (r) will be significance .

$$\begin{aligned} \text{S of r} &= \frac{r}{P.E} \\ &= \frac{0.85}{0.08} \\ &= 10.62 \end{aligned}$$

If should be concluded that the value of Correlation Coefficient EPs and Interest of NCC bank is 0.85 which is 10.62 times 7 P.E. so that the value of correlation between EPs and interest is significant.

Similarly

The correlation Coefficient of BOK in between EPs and Interest is found to be 0.99, where as the P.E is calculated as,

$$\begin{aligned} P.E &= 0.6745 \frac{1-r^2}{\sqrt{N}} \\ &= 0.6745 \frac{1-(0.99)^2}{\sqrt{5}} \\ &= 0.6745 \frac{1-0.98}{2.23} \\ &= \frac{0.013}{2.23} \\ &= 0.006 \end{aligned}$$

Significance of Correlation between EPs and Interest BOK is 0.99 which is 165 times more than P.E, so that the relationship between EPS and Interest of this bank is highly significant.

4.4.4 EBIT and DPS:

Shareholders get the dividend as return and EBIT is operating profit of the company here correlation coefficient of EBIT and DPS has been presented of concerned banks to analyze whether there is positive or negative correlation between dividend and operating profit. Following table shows the relationship

between these variables of sampled banks and to check the significance of their calculated correlations. PE is also presented which is referred from appendix 17.

Correlation coefficient between EBIT and DPS and their respective probable error:

Table No: 4.16

NCC		BOK	
Correlation Coefficient (r)	Probable error 6(P.E)	Correlation Coefficient (r)	Probable Error 6(P.E)
0.27	1.67	0.73	0.84

Source: Appendix -17

The correlation coefficient of NCC in two variables EBIT and DPS is 0.27, the P.E is calculated as.

$$\begin{aligned}
 P.E &= .6745 \frac{1-r^2}{\sqrt{N}} \\
 &= .6745 \frac{1-(0.27)^2}{\sqrt{5}} \\
 &= \frac{.625}{2.23} \\
 &= 0.28
 \end{aligned}$$

The value of r in both case is less then 6PE.∴ r will be insignificance .

$$\begin{aligned}
 S \text{ of } r &= \frac{r}{P.E} \\
 &= \frac{0.27}{0.28} \\
 &= 0.96 \text{ times}
 \end{aligned}$$

The relationship between EBIT and DPS of NCC is not significant be cause it is only 0.96 times 7 P.E

Similarly

The Correlation coefficient in between EBIT and DPS of BOK is 0.73 and the P.E is calculate as.

$$P.E = .6745 \frac{1-r^2}{\sqrt{N}}$$

$$\begin{aligned}
&= .6745 \frac{1-0.73)^2}{\sqrt{5}} \\
&= \frac{0.31}{2.23} \\
&= 0.14
\end{aligned}$$

Significance of Correlation

$$\begin{aligned}
\text{S of } r &= \frac{r}{P.E} \\
&= \frac{0.73}{0.14} \\
&= 5.21
\end{aligned}$$

The correlation coefficient between EBIT and DPS of BOK is 0.73, Which is only 5.21 times > than P.E, it requires 6 times, so that their is irr-significant relationship between EBIT and DPS

4.5 Major findings of the study:

- The long term debt in comparison to their total assets used by all two banks for financing is very minimum or negligible. Hence, the debt to total assets ratio of NCC and BOK is negligible.
- The return of shareholders equity of NCC and BOK is showing increasing trend. The NCC has average return of 23.15 which indicates that the shareholders earn 23.15 paisa investing one rupee. Likewise BOK has average return 15.79. The return of NCC is higher than BOK.
- BOK has the highest long term debt to capital employed ratio i.e. 0.22. This indicates that BOK is using more long term dent for financing its capital. Similarly, NCC has average ratio of 0.19.
- The earning per share explains net income for each unit share. It shows that the market position of the firm. The average earning per share of NCC and BOK is 66.54 and 55.92 respectively. In this analysis we can see that the EPS of NCC is the highest with 66.54 and continuous strong growth in the past 5 years.
- The correlation coefficient between EBIT and DPS of NCC and BOK are 0.27 and 0.73 respectively which is positive. The P.E of all banks is 1.67 and 0.84 respectively which is greater than correlation coefficient (r). So it is insignificant.

- The analysis shows that all the sampled bank under this research study NCC and BOK are able to pay the interest coverage ratio of 1.98. In the case of NCC the trend is increasing with the average of 1.84 which is a good sign.
- On this part of NCC is the front runner with highest average return on assets of 1.49. The overall return of BOK is 1.34.
- The percentage of total debt of firm covered by long term debt is indicated by long-term debt to total debt ratio NCC has 1.47% of average long term debt of total debt ratio and BOK is 0.97%. In all three cases the total debt is contributed buy current liabilities to large extent. The analysis of all two banks reveals the fluctuating trend of long term debt to total debt ratio. NCC and BOK have stopped using long term debt.
- Dividend per share is the earning distributed to ordinary shareholders. The analysis shows that BOK paid the highest DPS on average with 16.32. It didn't pay DPS to its ordinary shareholders in F/Y 2006/07, 2006/07 and 2010/11 while DPS of NCC on an average is 15.
- The debt to equity ratio shows that the claim of creditors on the total assets of the company. The trend analysis shows fluctuating trend in all the sampled banks used for this study. The average debt to equity ratio of NCC shows that the creditors have 21% claims on the assets of NCC. It shows that the bank has used higher amount of debt for financing and has highest amount to be paid as interest on debt. BOK has lowest debt to equity ratio among two banks with average of 0.098.
- Under the NI approach the interest rate and the cost of equity are dependent of the capital structures with the increased use of leverage overall costs of capital declines and the total value of firm raise. On the contrary, we can assume that NCC has bad capital and lowest value of firm.
- NCC has positive correlation between TD and SHE of 0.96 and its respective P.E is 0.14 which is less than correlation coefficient i.e. relationship between TD and SHE is significant. In case of BOK the correlation coefficient is 0.92 and its respective P.E is 0.28 which is also less than correlation which shows that the value of 'r' is significant. Ratios between long term debt and earning per share of NCC, BOK are 0.63 and 0.56 respectively and show positive correlation but P.E is greater than that of calculative value (r). So, it is significant.
- The correlation coefficient between EBIT and interest of all two sampled bank under this study are positive. The entire two banks have significant value since it is greater that P.E.

- Net Operating Income (NOI) approach is an independent hypothesis of capital structure. Any change in leverage will not lead to any change in the total value of firm and market price of the share. The value of NCC is higher with 4.73% whereas BOK is 4.68%. So we can say that BOK has optimum capital structure than NCC. The financial leverage analysis helps to evaluate the financial risk of the firm. The average degree of NCC and Bok are 2.19 and 2.03 respectively from the analysis. So, we can say its EPS is quite volatile. Meanwhile, BOK is bearing the lowest risk between the two.

CHAPTER-V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This is the concluding chapter of this study. This chapter is divided into three sections: Summary, Conclusions and Recommendations. In this chapter summary of the study is provided in brief. It has been a concern from the first chapter to the end. Findings of calculations, which have been drawn using different tools and technique based on the data provided by the concerned companies, are concerned here in conclusion section. In the last section of this chapter some recommendations have been given, which are useful to stakeholders and concerned companies as well. They can use these recommendations to take some corrective actions to draw decisions.

5.1 Summary:

The study was started with the objective to find out the fact about capital structure of commercial banks in Nepal. Because of the commercial banks are growing rapidly in the Nepalese economy and showing the attractive period. Thus, the interest was expressed to analyze the capital structure of these institutions. The study was conducted with the general objective to analyze the capital structure of the commercial banks in Nepal. In addition with these specific objectives of the study were to analyze the trend in paid-up capital, total debt and total equity capital, leverage position, debt servicing capacity and capital adequacy of the banks in period of 2006/07 to 2010/11. Various materials were reviewed in order to build up the research work. Meaning and functions of commercial banks, concept of capital structure, capital structure decision, optimum capital structure, features of optimum capital structure, Financial leverage, Meaning and sources of bank capital and capital structure theories were reviewed as conceptual review. On the other hand, review of articles and review of dissertations were included in research review section of the report.

The research covers only five years period from 2006/07 to 2010/11. It is concerned with the capital structure and capital of the commercial framework of descriptive and analytical research design and the analysis has been made in the same way. For the study purpose, four commercial banks were drawn as a sample. Out of population of 32 commercial banks were drawn as a sample. The required data and information were collected from secondary sources. In addition with this, primary data were also used in this research work which was collected by using

unstructured interview with concerned personnel. Financial ratio, simple implied to get the meaningful result of collected data in this research work.

Every business needs capital to operate business smoothly and the capital is said to be the blood of business. Capital is a scarce source and much more essential to maintain smooth operation of any firm. As in order form, capital structure is crucial part of banking industry too. The study had been carried based on commercial bank, i.e. NCC and BOK. For capital structure and profitability management. The major objectives for the study had been pointed out as follows:

The study is completed based on secondary data and carried over one bank over 32 commercial banks, the research methodology is followed to achieve the objective of the study and which constitutes research design, nature and sources of data, population and sample, data processing and method analysis. Moreover, financial tools and statistical tools have been employed according to requirement to achieve the target result.

Capital is a scarce sources and much more essential to maintain smooth operation of any firm. The available capital and financial sources should be utilized so efficiently that could generate maximum return. The term of capital structure is used to represent the proportionate relationship between debt and equity. The debt and equity mix of a firm is called capital structure. The capital structure design is a significant financial decision since it affects the shareholders' return, risk and market value of shares. Both debt and equity are used in most large comparison of certain characteristics of each kind of securities of interest factor related to the firms and of external factors can affect the firm.

The main theories of capital structure are Net Income Approach, Net Operating Income Approach, Traditional Approach and Modigliani-Miller Approach. EBIT/EPS Analysis, Cost of Capital, Flexible etc. are determinant of capital structure. Without study of these elements, the company cannot make appropriate capital structure and analysis of leverage may be incomplete.

Profitability is basically an arc around which the ventures every business revolves. Profit is the main financial indicator of business firm, which is indeed a need to survive and grow the business environment. Profit is essential to raise the market price of shares and to attract additional capital investment. Profit is the outcome of good management, cost control, credit risk management, efficiency of operation etc. Profit is described in two ways, on in traditional approach (Profit maximization) and another in modern approach (Sales maximization).

5.2 Conclusion

- Both banks have used high percentage of total debt in raising the assets. The higher ratio constitutes that the outsider's claiming in total assets of the bank is higher than owner claim.
- Debt to total ratio express the relationship between creditors fund and total assets to the debt ratio or debt to total assets ratio of NCC and BOK is negligible which concludes that the debt used as the capital are negligible.
- On the position of return on total assets of the two banks, NCC seems to have the highest return with 1.49, then BOK with return 1.34.
- Since shareholders are the real owners of the company they obviously want good return on their investment. On this part we can conclude from our analysis that NCC has the highest average return of 23.15% with fluctuating trend with average ROSHE of 15.79%. All of them quite show they have satisfactory return the extent to which this objective has been accomplished.
- EPS explains net income for each unit of share. The two banks under our study show the average of 66.54 for NCC, likewise 55.92 for BOK. NCC has the highest earning per share.
- Dividend per share shows the amount of earning distributed to ordinary shareholders. The investors invest in those companies which pay adequate amount of dividend. Our analysis concludes that average dividend per share of NCC is 15 and that of BOK is 16.32.
- Net income approach are the dependent hypothesis of capital structure which states that with the increased use of leverage, overall cost of capital declines and the total values of firm raise. According to this hypothesis the firm with the highest value of least cost of capitalization rate is considered to have the best capital structure. The average value of firm of NCC and BOK are 7205.41 and 5.73 respectively. From the calculation we can say that this approach is well adequate with this study as the value of banks has increased as the cost of capital has decreased.
- Similarly, in case of LTD and EPS the correlation coefficient NCC and BOK are positive. But 6 (P.E) is greater than correlation coefficient. The relationship between LTD and EPS is insignificant.
- Net operating income approach is the independent hypothesis of the capital structure decisions of the firm. According to this hypothesis any change in the leverage will not lead to any change in total value of the firm and

market price of the share. As the overall cost of capital is independent of the degree of leverage. From the position of K_e we can conclude that NCC has highest K_e with 4.73 and Bok has average K_e of 4.68%.

- When the company employs debt or other fund carrying fixed charges in the capital structure financial coverage exists. From the calculation we can conclude that BOK is bearing the highest risk among the two banks with average DFL of 2.72 but we can conclude that it is taking corrective actions to decrease its risk since trend look decreasing, BOK has lesser financial risk and NCC has moderate financial risk.
- In case of EBIT and DPS all the sample bank NCC and bank has positive correlation coefficient. But its 6 (P.E) ratio is higher than that of its correlation coefficient than its P.E showing insignificant relationship.
- The operating profit of all the commercial banks have been going up, so as the provision for loans loss. In brief, we can say that the banking sector in Nepal is somehow doing well enough though it has to face a lot of political and other hurdles in the past years.
- In the case of EBIT and INTEREST the correlation coefficient are positive and higher than its 6 (P.E) which is significant.
- Long term debt to capital employed ratio highlights the portion of fund financed by long term debt in the capital employed by the firm. The data shows NCC has the average ratio of 0.1917. Similarly BOK has the average ratio of 0.22. We can conclude that all the banks do not have appropriate ratio of long term debt to capital employed and among these two banks BOK has employed more of the long term debt in comparison than other sample banks.
- Longer term debt to total debt ratio shows that all of the sample banks have fluctuating trend of long term debt to total debt ratio. NCC has average of 1.47% long term debt to total debt ratio which means 98.53% of the total debt is contributed by current liabilities. Similarly, BOK has the average of 0.97%.
- Interest coverage ratio shows whether or not the banks are capable in paying interest. The conclusion drawn by the study is average interest coverage ratio of NCC is 1.84, BOK is 1.98. This clearly shows that all the sampled bank are able to clear the interest but since the higher interest coverage ratio is better in this regard BOK seems to be in the front.
- To equity ratio analysis shows that the creditors have 21% claims on the assets of NCC which is very higher among the two banks. It also indicates

that NCC higher amount to be paid as interest on debt. Just the opposite in case of BOK the creditors have 9.8% on the assets.

5.3. Recommendations

- On the DFL part, we know that shareholders not only seek high return from their investment but also consider the risk of their investment. So it is recommended to tell these banks under our study to plan their financial leverage will by analyzing the possible alternatives considering the high return and less risk.
- From the study we can clearly say that the banks lack the theoretical knowledge regarding the capital structure. They have not given significant attention to the capital structure matter. Capital structure is a serious matter. It affects EPS, value of firm, cost of capital etc.
- So it is recommended that these banks should follow the theoretical aspects of the capital structure management or given some seriousness in this matter and try to manage their activities accordingly.
- It is visible that all of these three are playing significant role in contributing in the modern banking system to uplift the economical development of the nation. But it can be seen that almost all of the commercial banks are urban based, they should try to make their operation broad by moving to rural area. The saving from the rural areas is seemed to be neglected by the banks without which they can't contribute to the economic development of the country.
- So, it is recommended that they should try to adopt more cooperative approach and should expand its branches by covering all the inner parts of the country. So that all the Nepalese living in any nooks and corner of the country can enjoy the banking facility and can benefit from it.
- Nepalese share holders are very much concerned about the payment of cash divided by the bank rather than financial statement. But while observing the areas like , EPS and DPS
- By looking at some of the aspect of capital structure management like LTD to capital total debt ratio, capital employed ratio NCC seems to be in the weaker position.
- While observing interest coverage ratio, return on total assets, return on shareholders' equity BOK seems to be in the better position. The banks are

recommended to minimize their financial and other expenses so that the interest coverage ratio could be improved.

- They are also recommended to use less debt, improve strategy of promotion activities analyze and evaluate before making investment.
- Since, there are lots of commercial banks in the market and lots are certain to be established in the near future. They should seriously adopt customer oriented strategy if not they may have to lose their loyal customer and in return their business.
- Since, human resources are the main source to make the banking activity successful they should give more priority in regular, training, conduct regular workshop which will give staff the new information about the

APPENDICES

APPENDIX-1

Long Term Debt to total debt

$$\text{LTD/TD} = \frac{\text{Long term Debt}}{\text{Total Debt}} \times 100\%$$

Long Term Debt to Total Debt of NCC

Table No: 4.16

F/y	Long term Debt	Total Debt	(LTD/TD)%
2006/07	-	8928.24	-
2007/08	300.00	10896.57	2.75
2008/09	300.00	14996.45	2.00
2009/10	300.00	20215.75	1.48
2010/11	300.00	27149.34	1.10
Average			1.47

Long Term Debt to Total Debt of BOK

Table No: 4.17

F/y	Long term Debt	Total Debt	(LTD/TD)%
2006/07	-	23437.85	-
2007/08	360.00	26302.94	1.37
2008/09	360.00	27694.21	1.30
2009/10	360.00	31372.64	1.15
2010/11	360.00	33662.54	1.06
Average			0.97

APPENDIX-2

Long Term Debt to capital Employed

$$\text{Long term debt to capital employed} = \frac{\text{Long term Debt}}{\text{Capital Employed}}$$

Long Term Debt to capital Employed Ratio of NCC

Table No: 4.19

F/y	Long term Debt	Total Debt	(LTD/TD)%
2006/07	-	501.90	-
2007/08	300.00	888.53	0.3376
2008/09	300.00	1262.81	0.2375
2009/10	300.00	1501.52	0.1997
2010/11	300.00	1634.60	0.1835
Average			0.1917

Long Term Debt to capital Employed ratio of BOK

Table No: 4.20

F/y	Long term Debt	Total Debt	(LTD/TD)%
2006/07	-	706.21	-
2007/08	360.00	1161.67	0.31
2008/09	360.00	1288.75	6.28
2009/10	360.00	1355.19	6.27
2010/11	360.00	1426.30	6.25
Average			0.25

APPENDIX-3

Total Debt to Total Assets Ratio

$$\text{Debt to total assets ratio} = \frac{\text{Total Debt}}{\text{Total Assets}}$$

Debt to Total Assets Ratio of NCC

F/y	Long term Debt	Total Debt	(LTD/TD)%
2006/07	8928.25	9608.57	0.93
2007/08	11022.51	11732.51	6.90
2008/09	14996.45	15959.28	0.92
2009/10	20321.05	21432.57	0.93
2010/11	25228.10	27149.34	6.92
Average			0.92

Debt to Total Assets Ratio of BOK

F/y	Long term Debt	Total Debt	(LTD/TD)%
2006/07	23493.19	25729.78	0.91
2007/08	26707.50	28871.34	0.92
2008/09	27334.20	30579.80	0.89
2009/10	31005.15	33519.14	0.93
2010/11	33662.54	36858.06	0.91
Average			0.91

APPENDIX-4

Debt to Equity Ratio

$$\text{Debt to equity ratio} = \frac{\text{Longtermdebt}}{\text{Shareholder equity}}$$

Debt to equity ratio of NCC

F/y	Long term Debt (000)	Total Debt (000)	(LTD/TD)%
2006/07	-	680.31	-
2007/08	300	769.62	0.48
2008/09	300	962.80	0.31
2009/10	300	1201.51	0.24
2010/11	300	1921.23	0.15
Average			0.21

Debt to equity ratio of BOK

F/y	Long term Debt (000)	Shareholders Equity (000)	(LTD/TD)%
2006/07	-	2291.92	-
2007/08	360	2568.39	0.14
2008/09	360	2885.59	0.12
2009/10	360	2942.42	0.12
2010/11	360	3195.46	0.11
Average			0.098

APPENDIX -5

Interest coverage ratio

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

Interest coverage ratio of NCC

F/y	Long term Debt(000)	Total Debt(000)	(I/C Ratio)
2006/07	527.49	316.37	1.67
2007/08	552.29	299.57	1.84
2008/09	746.00	401.40	1.86
2009/10	971.88	517.17	1.80
2010/11	1291.29	632.60	2.04
Average			1.84

Interest coverage ratio of BOK

F/y	Long term Debt(000)	Total Debt(000)	(I/C Ratio)
2006/07	911.81	491.54	1.85
2007/08	1084.50	561.96	1.92
2008/09	1321.23	648.84	2.03
2009/10	1484.81	767.41	1.93
2010/11	1772.57	823.74	2.15
Average			1.98

APPENDIX-6

Return on Total Assets

$$\text{Return to total Assets} = \frac{\text{Net profit after tax}}{\text{Total Assets}}$$

Return to Total Assets Ratio of NCC

F/y	NPAT (000)	Total Assets (000)	ROA
2006/07	143.57	9608.57	1.4942
2007/08	168.21	11732.57	1.4337
2008/09	237.38	15959.28	1.4874
2009/10	296.41	21432.57	1.3830
2010/11	451.4	27149.34	1.6620
Average			1.4921

Return to Total Assets Ratio of BOK

F/y	NPAT (000)	Total Assets (000)	ROA
2006/07	263.05	25729.78	1.02
2007/08	308.27	28871.34	1.07
2008/09	457.445	30579.80	1.50
2009/10	491.82	341 4.86	1.43
2010/11	635.86	36858.06	1.72
Average			1.34

APPENDIX-7

Return on Shareholders' Equity

Return on Shareholders' equity = $\frac{\text{Net profit After Tax}}{\text{Shareholders equity}}$

Return on Shareholders equity Ratio of NCC

F/y	NPAT (000)	Shareholder equity (000)	ROE
2006/07	143.57	680.31	21.10
2007/08	168.21	769.62	21.86
2008/09	237.38	962.80	24.66
2009/10	296.41	1201.51	24.67
2010/11	451.21	1912.23	23.49
Average			23.15

Return on Shareholders equity Ratio of BOK

F/y	NPAT (000)	Shareholder equity (000)	ROE
2006/07	263.05	2291.92	11.48
2007/08	308.27	2568.39	12.00
2008/09	457.45	2885.59	15.85
2009/10	491.82	2942.22	16.72
2010/11	635.86	3195.46	19.90
Average			15.79

APPENDIX -8

Earning Per Share

$$\text{EPS} = \frac{\text{Net Income}}{\text{No. of Share outstanding}}$$

Earning per share of NCC

F/y	EBIT (000)	Interest (000)	Tax (000)	EAT (000)	No. of Share	EPS
2006/07	577.49	316.37	67.55	143.57	3150000	45.58
2007/08	552.29	299.57	81.91	170.81	3150000	54.22
2008/09	746.00	401.40	108.31	237.38	3780000	62.78
2009/10	971.88	517.17	153.30	296.41	3780000	78.30
2010/11	1300.72	632.60	216.91	451.21	4914000	91.82
Average						66.54

Earning per share of BOK

F/y	EBIT (000)	Interest (000)	Tax (000)	EAT (000)	No. of Share	EPS
2006/07	911.81	491.54	151.22	263.05	5362500	49.05
2007/08	1084.50	561.96	214.26	308.28	6435000	47.91
2008/09	1321.23	648.84	214.94	457.45	7722000	59.24
2009/10	1484.81	767.41	225.58	491.82	8108100	60.66
2010/11	1772.57	823.74	312.97	635.86	10135120	62.74
Average						55.92

APPENDIX-9

Dividend per Share

$$\text{Dividend per share} = \frac{\text{Total Dividend}}{\text{No. of Share outstanding}}$$

Dividend per Share of NCC

F/y	Total Dividend	No.of Share	DPS
2006/07	63000000	3150000	20
2007/08	-	3150000	-
2008/09	945000000	3780000	25
2009/10	3780000	4914000	10
2010/11	98280000		20
Average			15

Dividend per Share of BOK

F/y	Total Dividend	No.of Share	DPS
2006/07	-	536200	-
2007/08	74517300	6435000	11.50
2008/09	23660000	7722000	30
2009/10	121620000	8108100	15
2010/11	253780000	10135120	25.04
Average			16.32

APPENDIX -10

Calculation of NI Approach

Market value of equity (s) = No of share X closing MPS

Market value of firm (V) = Market value of Debt (B) + Market value of Equity (s)

Value of firm of NCC

F/y	No. of shares	Closing MPS	Marketing Value of shares(S)	Market value of Debt	V = S+B
2006/07	350000	680	2142000000	1071000000	2249100000
2007/08	350000	870	2740500000	1370250000	2877525000
2008/09	3780000	1379	5212620000	2606310000	5473251000
2009/10	3780000	2430	9185400000	3674160000	9552816000
2010/11	4914000	3132	15390480000	4837250000	15874373000

Value of firm of BOK

F/y	No. of shares	Closing MPS	Marketing Value of shares(S)	Market value of Debt	V = S+B
2006/07	5362500	840	4504500000	4069800000	4911480000
2007/08	645000	920	5920200000	534830868	6455030868
2008/09	7722000	1100	8494200000	767366028	9261566028
2009/10	8108100	1740	10628094000	956528460	1158422460
2010/11	10135120	2450	24831044000	984937620	25815981620

APPENDIX-11

Calculation of overall capitalization (KO)

Cost of overall capitalization Rate (KO = $\frac{\text{EBIT}}{\text{Total Market value of firm}}$)

Calculation of overall capitalization Rate of NCC:

F/y	EBIT (000)	Value of Firm (000)	KO
2006/07	527.49	2249.10	0.234
2007/08	552.29	2877.52	0.193
2008/09	746.00	5473.25	0.136
2009/10	971.88	9552.81	0.101
2010/11	1300.72	158737	0.081
Average			0.149

Calculation of overall capitalization Rate of BOK

F/y	EBIT (000)	Value of Firm (000)	KO
2006/07	911.81	4911.48	0.185
2007/08	1084.50	6455.03	0.168
2008/09	1321.23	9261.56	0.142
2009/10	1484.81	11584.62	0.128
2010/11	1772.57	25815.98	0.068
Average			0.138

APPENDIX-12

Calculation of 'NOI' Approach

$$\text{Cost of equity (Ke)} = \frac{\text{Earning Available to Common Stockhold}}{\text{Market Value of Stock (S)}}$$

Calculation of equity capitalization rate of NCC

F/y	Net Income (000)	Market Value of Stock (S)	Ke
2006/07	143.57	2142.00	0.0670
2007/08	170.81	2740.50	0.0623
2008/09	237.29	5212.62	0.0455
2009/10	296.41	9185.4	0.0323
2010/11	451.21	15390.64	0.0293
Average			0.0473

Calculation of Equity Capitalization Rate of BOK

F/y	Net Income (000)	Market Value of Stock (S)	Ke
2006/07	263.05	4504.50	0.058
2007/08	308.28	5920.20	0.052
2008/09	457.45	8494.20	0.053
2009/10	491.82	10628.09	0.046
2010/11	635.86	24831.04	0.025
Average			0.0468

APPENDIX-13

Degree of Financial Leverage

$$\text{Degree of financial leverage} = \frac{\text{EBIT}}{\text{EBI}}$$

Degree of financial leverage of NCC

F/y	EBIT (000)	EBT (000)	DFL
2006/07	527.49	211.12	2.50
2007/08	552.29	252.72	2.19
2008/09	746.00	344.60	2.16
2009/10	971.88	454.71	2.14
2010/11	1300.72	658.69	1.97
Average			2.19

Degree of financial leverage of BOK

F/y	EBIT (000)	EBT (000)	DFL
2006/07	911.81	420.57	2.17
2007/08	1084.50	522.54	2.08
2008/09	1321.23	672.36	1.97
2009/10	1484.81	717.40	2.07
2010/11	1772.57	948.83	1.87
Average			2.03

Correlation coefficient between total debt and shareholders equity with probable error

$$\text{Correlation coefficient (V)} = \frac{N\sum xy - \sum x - \sum y}{\sqrt{Nx^2 - (\sum x)^2} \sqrt{Ny^2 - (\sum y)^2}}$$

Where,

N= Number of observation

X and are variable

$$P.E = \frac{6 \times 0.6745 \times (1 - r^2)}{N}$$

N

V= Correlation coefficient

N= Number of pair of observation

Correlation coefficient between ID and SHE of NCC

F/y	T.D(x)	SHE(x)	XY	X ²	Y ²
2006/07	8928.25	680.31	6073977.758	79713648.06	462821.7
2007/08	11022.51	769.62	8483144.146	121495726.7	592314.9
2008/09	14996.45	962.8	14438582.06	224893512.6	926983.8
2009/10	20231.05	1201.51	24307808.89	409295384.1	1443626
2010/11	25228.1	1921.23	48468982.56	636457029.6	3691125
Average	80406.36	5535.47	101772495.4	1471855301	7116871

$$r = \frac{N\sum xy - \sum x \cdot \sum y}{\sqrt{N\sum x^2 - (\sum x)^2} \sqrt{N\sum y^2 - (\sum y)^2}}$$

$$= \frac{5 \times 101772495.4 - 80406.36 \times 5535.47}{\sqrt{5 \times 1471855301 - (80406.36)^2} \sqrt{5 \times 7116871.47 - (5535.17)^2}}$$

$$= 0.96$$

$$P.E = 6 \times \frac{0.6745 \times (1 - r^2)}{\sqrt{N}}$$

\sqrt{N}

$$= 6 \times \frac{0.6745 \times (1 - 0.96^2)}{\sqrt{5}}$$

$\sqrt{5}$

$$= 6 \times \frac{0.6745 \times (1 - 0.96^2)}{2.24}$$

$$= 0.14$$

Correlation coefficient between ID and SHE of BOK

F/y	T.D(x)	SHE(y)	XY	X ²	Y ²
2006/07	23493.19	2291.92	53844512.02	551929976.4	5252897.286
2007/08	26707.5	2568.39	68595275.93	713290556.3	6596627.192
2008/09	27334.2	2885.59	78875294.18	747158489.6	8326629.648
2009/10	31005.15	2942.22	91223972.43	961319326.5	8656658.528
2010/11	3366.54	3195.46	10757643.91	11333591.57	10210964.61
Average	111906.6	13883.58	303296698.5	2985031940	39043777.27

$$r = \frac{N\sum xy - \sum x \cdot \sum y}{\sqrt{N\sum x^2 - (\sum x)^2} \sqrt{N\sum y^2 - (\sum y)^2}}$$

$$= \frac{5 \times 303296698.5 - 111906.6 \times 13883.58}{\sqrt{5 \times 2985031940 - (111906.6)^2} \sqrt{5 \times 39043777.27 - (13883.58)^2}}$$

$$= 0.92$$

$$P.E = 6 \times \frac{0.6745 \times (1 - r^2)}{\sqrt{N}}$$

$$= 6 \times \frac{0.6745 \times (1 - 0.92^2)}{\sqrt{5}}$$

$$= 0.28$$

APPENDIX-15

Correlation Coefficient between long terms debt and EPS with probable error of NCC:

F/y	T.D(x)	SHE(y)	XY	X ²	Y ²
2006/07	-	45.58	-		2077.5364
2007/08	300	54.22	16266	90000	2939.8084
2008/09	300	62.78	18834	90000	3941.3284
2009/10	300	78.3	23490	90000	6130.89
2010/11	300	91.82	27546	90000	8430.9124
Average	1200	332.7	86136	360000	23520.4756

$$r = \frac{N\sum xy - \sum x \cdot \sum y}{\sqrt{N\sum x^2 - (\sum x)^2} \sqrt{N\sum y^2 - (\sum y)^2}}$$

$$= \frac{5 \times 86136 - 1200 \times 332.7}{\sqrt{5 \times 360000 - (1200)^2} \sqrt{5 \times 23520.4756 - (332.7)^2}}$$

$$= 0.63$$

$$P.E = 6 \times \frac{0.6745 \times (1 - r^2)}{\sqrt{N}}$$

$$= 6 \times \frac{0.6745 \times (1 - 0.63^2)}{\sqrt{5}}$$

$$= 1.08$$

Correlation Coefficient between long terms debt and EPS with probable error of BOK:

F/y	T.D(x)	SHE(y)	XY	X ²	Y ²
2006/07	-	49.05	-	-	2405.90
2007/08	360	47.91	17247.6	129600	2295.36
2008/09	360	59.24	21326.4	129600	3509.37
2009/10	360	60.66	21837.6	129600	3679.63
2010/11	360	62.74	22586.4	129600	3936.30
Average	1440	279.6	82998	518400	15826.60

$$r = \frac{N\sum xy - \sum x \cdot \sum y}{\sqrt{N\sum x^2 - (\sum x)^2} \sqrt{N\sum y^2 - (\sum y)^2}}$$

$$= \frac{5 \times 82998 - 1440 \times 279.6}{\sqrt{5 \times 518400 - (1440)^2} \sqrt{5 \times 15826.59 - (279.6)^2}}$$

$$= 0.56$$

$$P.E = 6 \times \frac{0.6745 \times (1 - r^2)}{\sqrt{N}}$$

$$= 6 \times \frac{0.6745 \times (1 - 0.56^2)}{\sqrt{5}}$$

$$= 1.24$$

APPENDIX-16

Correlation Coefficient between long terms debt and EPS with probable error of BOK:

F/y	T.D(x)	SHE(y)	XY	X ²	Y ²
2006/07	527.49	316.37	166882.0113	278245.7001	100089.977
2007/08	527.49	299.57	158020.1793	278245.7001	89742.1849
2008/09	746	401.4	299444.4	556516	161121.96
2009/10	971.88	517.17	502627.1796	944550.7344	267464.809
2010/11	1300.72	632.6	822835.472	1691872.518	400182.76
Average	4073.58	2167.11	1949809.242	3749430.653	1018601.69

$$r = \frac{N\sum xy - \sum x \cdot \sum y}{\sqrt{N\sum x^2 - (\sum x)^2} \sqrt{N\sum y^2 - (\sum y)^2}}$$

$$= \frac{5 \times 1949809.242 - 4073.58 \times 2167.11}{\sqrt{5 \times 3749430.653 - (4073.58)^2} \sqrt{5 \times 1018601.69 - (2167.11)^2}}$$

$$= 0.85$$

$$P.E = 6 \times \frac{0.6745 \times (1 - r^2)}{\sqrt{N}}$$

$$\sqrt{N}$$

$$= 6 \times \frac{0.6745 \times (1 - 0.85^2)}{\sqrt{5}}$$

$$\sqrt{5}$$

$$= 0.50$$

Correlation Coefficient between long terms debt and EPS with probable error of BOK:

F/y	T.D(x)	SHE(y)	XY	X ²	Y ²
2006/07	911.81	491.54	448191.0874	831397.4761	241611.572
2007/08	1084.5	561.96	609445.62	1176140.25	315799.042
2008/09	1321.23	648.84	857266.8732	1745648.713	420993.346
2009/10	1484.81	767.41	1139458.042	2204660.736	588918.108
2010/11	1772.57	823.74	1460136.812	3142004.405	678547.588
Average	6574.92	3293.49	4514498.435	9099851.58	2245869.65

$$r = \frac{N\sum xy - \sum x \cdot \sum y}{\sqrt{N\sum x^2 - (\sum x)^2} \sqrt{N\sum y^2 - (\sum y)^2}}$$

$$= \frac{5 \times 4514498.435 - 6574.92 \times 3293.49}{\sqrt{5 \times 9099851.58 - (6574.92)^2} \sqrt{5 \times 2245869.65 - (3293.49)^2}}$$

=0.99

$$P.E = 6 \times \frac{0.6745x(1-r^2)}{\sqrt{N}}$$

\sqrt{N}

$$= 6 \times \frac{0.6745x(1-0.99^2)}{\sqrt{5}}$$

$\sqrt{5}$

=0.04

APPENDIX-17

Correlation Coefficient between long terms debt and EPS with probable error of NCC:

F/y	T.D(x)	SHE(y)	XY	X ²	Y ²
2006/07	527.49	20	10549.8	278245.7001	400
2007/08	552.29			305024.2441	
2008/09	746	25	18650	556516	625
2009/10	971.88	10	9718.8	944550.7344	100
2010/11	1300.72	20	26014.4	1691872.518	400
Average	4098.38	75	64933.00	3776209.197	1525

$$r = \frac{N\sum xy - \sum x \cdot \sum y}{\sqrt{N\sum x^2 - (\sum x)^2} \sqrt{N\sum y^2 - (\sum y)^2}}$$

$$= \frac{5 \times 64933.00 - 4098.38 \times 75}{\sqrt{5 \times 3776209.197 - (4098.38)^2} \sqrt{5 \times 1525 - (75)^2}}$$

$$= 0.27$$

$$P.E = 6 \times \frac{0.6745 \times (1 - r^2)}{\sqrt{N}}$$

$$= 6 \times \frac{0.6745 \times (1 - 0.27^2)}{\sqrt{5}}$$

$$= 1.67$$

Correlation Coefficient between long terms debt and EPS with probable error of BOK:

F/y	T.D(x)	SHE(y)	XY	X ²	Y ²
2006/07	911.81		0	831397.4761	0
2007/08	1084.5	11.57	12547.665	1176140.25	133.86
2008/09	1321.23	30	39636.9	1745648.713	900
2009/10	1484.81	15	22272.15	2204660.736	225
2010/11	1772.57		0	3142004.405	0
Average	6574.92	56.57	74456.715	9099851.58	3200.2

$$r = \frac{N\sum xy - \sum x \cdot \sum y}{\sqrt{N\sum x^2 - (\sum x)^2} \sqrt{N\sum y^2 - (\sum y)^2}}$$

$$= \frac{5 \times 74456.715 - 6574.92 \times 56.57}{\sqrt{5 \times 9099851.58 - (6574.92)^2} \sqrt{5 \times 3200.2 - (56.57)^2}}$$

=0.73

$$P.E = 6 \times \frac{0.6745 \times (1-r^2)}{\sqrt{N}}$$

\sqrt{N}

$$= 6 \times \frac{0.6745 \times (1-0.73^2)}{\sqrt{5}}$$

$\sqrt{5}$

=0.84

APPENDIX-18

Calculation of standard Deviation and Coefficient of Variation of Long Term Debt to T.D:

F/y	NCC	BOK
	$(X - \bar{X})^2$	$(X - \bar{X})^2$
2006/07	-	-
2007/08	1.64	0.15
2008/09	0.28	0.11
2009/10	0.0001	0.03
2010/11	0.14	0.01
$(X - \bar{X})^2$	2.06	0.30
$\sigma = \sqrt{\frac{\Sigma(X - \bar{X})^2}{N - 1}}$	0.72	0.72
$C.V = \frac{\sigma}{\bar{X}} \times 100$	48.98	28.87

APPENDIX-19

Calculation of standard Deviation and Coefficient of Variation of Long Term Debt to T.D:

F/y	NCC	BOK
	$(X - \bar{X})^2$	$(X - \bar{X})^2$
2006/07	0.0367	0.0484
2007/08	0.0213	0.0081
2008/09	0.0021	0.0036
2009/10	0.0001	0.00250
2010/11	0.0001	0.0009
$(X - \bar{X})^2$	0.0603	0.0637
$\sigma = \sqrt{\frac{\Sigma(X - \bar{X})^2}{N - 1}}$	0.12	0.13
$C.V = \frac{\sigma}{\bar{X}} \times 100$	62.60	59.09

APPENDIX-20

Calculation of standard Deviation and Coefficient of Variation of Debt total assets ratio :

F/y	NCC	BOK
	$(X - \bar{X})^2$	$(X - \bar{X})^2$
2006/07	0.0001	-
2007/08	0.0004	0.0001
2008/09	0	0.0004
2009/10	0.0001	0.0004
2010/11	0	-
$(X - \bar{X})^2$	0.0006	0.0009
$\sigma = \sqrt{\frac{\Sigma(X - \bar{X})^2}{N - 1}}$	0.014	0.015
$C.V = \frac{\sigma}{\bar{X}} \times 100$	1.52	1065

APPENDIX-21

Calculation of standard Deviation and Coefficient of Variation of Debt to equity ratio :

F/y	NCC	BOK
	$(X - \bar{X})^2$	$(X - \bar{X})^2$
2006/07	0.0441	0.0096
2007/08	0.0289	0.0018
2008/09	0.0100	0.0005
2009/10	0.0009	0.0005
2010/11	0.0036	0.0001
$(X - \bar{X})^2$	0.0875	0.0125
$\sigma = \sqrt{\frac{\Sigma(X - \bar{X})^2}{N - 1}}$	0.15	0.06
$C.V = \frac{\sigma}{\bar{X}} \times 100$	71.43	61.21

APPENDIX-22

Calculation of standard Deviation and Coefficient of Variation of Debt to equity ratio :

F/y	NCC	BOK
	$(X - \bar{X})^2$	$(X - \bar{X})^2$
2006/07	0.0289	0.0169
2007/08	0	0.0036
2008/09	0.0004	0.0025
2009/10	0.0016	0.0025
2010/11	0.0400	0.0289
$(X - \bar{X})^2$	0.0709	0.0544
$\sigma = \sqrt{\frac{\Sigma(X - \bar{X})^2}{N - 1}}$	0.13	0.12
$C.V = \frac{\sigma}{\bar{X}} \times 100$	7.07	6.06

APPENDIX-23

Calculation of standard Deviation and Coefficient of Variation of Debt to equity ratio :

F/y	NCC	BOK
	$(X - \bar{X})^2$	$(X - \bar{X})^2$
2006/07	-	0.1024
2007/08	0.0036	0.0729
2008/09	-	0.0256
2009/10	0.0119	0.0081
2010/11	0.0289	0.1444
$(X - \bar{X})^2$	0.0442	-
$\sigma = \sqrt{\frac{\Sigma(X - \bar{X})^2}{N - 1}}$	0.11	0.30
$C.V = \frac{\sigma}{\bar{X}} \times 100$	7.38	22.30

APPENDIX-24

Calculation of standard Deviation and Coefficient of Variation of Debt to equity ratio :

F/y	NCC	BOK
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	$(X - \bar{X})^2$	$(X - \bar{X})^2$
2006/07	4.2025	18.5761
2007/08	0.6641	14.3641
2008/09	2.2801	0.0036
2009/10	2.3104	0.8649
2010/11	0.1156	16.8921
$(X - \bar{X})^2$	10.5727	50.7008
$\sigma = \sqrt{\frac{\Sigma(X - \bar{X})^2}{N - 1}}$	1.63	3.56
$C.V = \frac{\sigma}{\bar{X}} \times 100$	7.04	22.55

APPENDIX-25

Calculation of standard Deviation and Coefficient of Variation of EPS :

F/y	NCC	BOK
	$(X - \bar{X})^2$	$(X - \bar{X})^2$

2006/07	439.32	47.20
2007/08	151.78	64.14
2008/09	14.14	11.02
2009/10	138.30	22.47
2010/11	639.08	46.51
$(X - \bar{X})^2$	1382.62	191.34
$\sigma = \sqrt{\frac{\Sigma(X - \bar{X})^2}{N - 1}}$	18.59	6.92
$C.V = \frac{\sigma}{\bar{X}} \times 100$	27.97	12.37

APPENDIX-26

**Calculation of standard Deviation and Coefficient of Variation of
DPS :**

F/y	NCC	BOK
	$(X - \bar{X})^2$	$(X - \bar{X})^2$
2006/07	25	266.47

2007/08	225	22.47
2008/09	100	187.17
2009/10	25	1.74
2010/11	25	76.04
$(X - \bar{X})^2$	400	553.86
$\sigma = \sqrt{\frac{\Sigma(X - \bar{X})^2}{N - 1}}$	10	11.77
$C.V = \frac{\sigma}{\bar{X}} \times 100$	66.67	72.12

BIBLIOGRAPHY:

Alexander Barges, (1963). *The Effect of Capital Structure on The Cost of Capital*. USA:

Prentice-Hall Inc.

Bhalla V.K (2000). *Investment Management Security Analysis and Portfolio*

Management. New Delhi: S Chand and Company Ltd.

Fisher Donald F. and Jordan, Ronald J. *Security Analysis and Portfolio Management*.

- USA: Prentice Hall.
- Francis Jack Clark, (1997). *Investment Analysis and Management*. New York: McGraw Hill Book Company.
- Gitman, Lawrence J. (1985). *Principles of Managerial Finance*. New York: Wright State University.
- Gotezmann William, (1999). *Introduction for Investment Theory*. USA: Yale School of Management.
- Hampton John J. (1989) *Financial Decision Making, Concepts, Problems and Cases*. New Delhi: Prentice Hall of India Pvt. Ltd.
- Horne A.S. (1996). *Oxford Advance Learner's Dictionary*. USA: Oxford University press.
- Khan M.Y. and Jain P.K. (1995). *Financial Management*. New Delhi: Vikash Publishing House Pvt. Ltd, India.
- Pradhansurendra, (1997). *Basic of Financial Management USA*: Harvard California State University.
- Prasanna Chandra, (1996). *financial management*. New Delhi: Tata McGraw Hill Publishing Compony.
- Saxena V.K. and C.D (2002). *Basics of Financial Management*. New Delhi: Sultan Chand & Sons, Educational Publishers.
- Seth M.L (1998). *Refresher Corse in Economics*. Agra: Lakshmi Narain Agrawal, Education Publishers
- Shrestha Sunity (Dr). and Silwal Dhruba Prasad, (2057 B.S.). *Statistical Methods in Management*. Kathmandu: Taleju Prakashan.
- Singh Marigendra Lal (Dr.), (2005). *Understanding Research Methodology*. Kathmandu: National Book Centre
- Steven Botten E. and Robert L. (1981). *Essential of Managerial Finance Principles and*

Practice. Boston: Houghton Mifflin Co.

Upadhyay, K.M.: (1985), *Financial Management, India Kalyani Publishing Van Horne*

James C. and Wachowicz Jr. and M. John, (1995). Fundamentals of Financial Management. USA: Prentice Hall Inc.

Weston J. Fred and Brigham, (1998). *Managerial Finance. USA: Hold Saunders International Editions.*

Wolf Howard and Pant Prem, (2002). *Social Science Research and Thesis Writing. Kathmandu: Buddha Academic Enterprises.*

Journal, Articles and Dissertation

Acharya, Rabin (2007). *A Study on Capital Structure Position in Arihanta Multi Fiber Ltd.* An Unpublished Masters' Degree Thesis, Tribhuvan University, Kathmandu

Booth, L.V. Sivazian, A. Demirguc-Kunt and V.Maksimovic (2001), "*Capital Structure in Developing Countries*", Journal of Finance, Vol. 56:97-129.

Dhakal, Sujan (2009) *A Study on Capital Structure of Bottlers Nepal Limited.* An unpublished Masters' Degree Thesis, Tribhuvan University, Kathmandu.

Govt. of Nepal/Ministry of Finance, (2004/05). *Economic Survey . Kathmandu International Forum, (2007). Nepal Year Book. Kathmandu.*

Karki.Roshan, (2010) *An Evaluation of Capital Structure of Industrial Public Enterprises.* Master's Degree Thesis, T.U.

Khadka, Manoj (2006) *A Study on Capital Structure between Butwal Spinning Mills Ltd. And Jyoti Spinning Mills Ltd.* An Unpublished Masters' Degree Thesis, Tribhuvan University, Kathmandu.

Miller, M.H. (1977), "*Debt and Taxes*", Journal of Finance, Vol.32:261-275

Nepal Stock Exchange Ltd. (2007), *Financial statement of Listed Companies, Vol. IV, Kathmandu*

Rajan, R. and L. Zingales (1985), "*What do you know about Capital Structure ? Some*

Evidence from Internatioanl Data”, Journal of Finance, Vol.50:1421-1460.

Shakya, Roshani (2005) *A Study on Study on Capital Structure Management of Gorakhkali Rubber Udyog Limited*. An Unpublished Masters’ Degree Thesis, TribhuvanUniversity, Kathamandu.

Shrestha, Sujana (2008) *A Study on Capital and Asset Structure of Nepal Bank Limited* An Unpublished Masters’ Degree Thesis, Tribhuvan University, Kathmandu.

Thapa, Bishal (2001) *A study on Capital Structure of Industrial Public Enterprises*. Master’s Degree Thesis, T.U.