CHAPTER – 1

INTRODUCTION

1.1 Background of the study

As the statistics of HDI of 2009 published by UNDP, Nepal is a developing country in the world. Which ranks 144th in out of 182 countries. So, government of Nepal has been emphasizing on the economic liberalization policy to grow its national economy. Government of Nepal has also launched many plans and programmes for its economic development but lack of proper capital and misuse of capital mobilization have become the major cause to remain undeveloped country so far. Recently, the Nepalese government has adopted the path of economic development through privatization and liberalization policy. But in other hand, the political situation of the country is not favorable for investors and entrepreneurs. Policies have well designed but unfortunately, it has not been implemented.

Industrialization is the backbone of developing country like Nepal for economic development. It plays vital role to develop overall aspects of the country. Without industrial and business enterprises, economic development of the nation is impossible.

Finance is an essential resource to operate the business properly. In the absence of the financial resource, the business can't be established and operated traditionally financial management is the science of money and concerns only with rising of funds but in modern concept, it is not only that, rather, it is the

science of making financial decisions such as financial decision, investment decision and dividend decision.

At present, Banking activities have developed so much. Basically, the term 'Bank' refers to commercial banks. A bank is an institution which deals with money by accepting various types of deposits, disbursing loan and rendering other financial services. "Any institution offering deposits subject to withdraw on demand and making loans of commercial or business nature is bank"[1]

Bank is an organized institution which deals with monetary transactions. It collects deposits from several parties who have surplus part of earnings and lend to those people who need money for different purposes. It provides interest at a certain rate for the loan provided to the outsiders. It helps the people of different sectors like individual, professionals traders, industrialists, farmers etc. by providing short term, mid-term and long term loan. So, A bank plays significant role in the commercial, industrial and overall economic development of the country.

There are various banking functions and no bank can discharge all of these functions effectively. So, they specialize some functions such as dealing on foreign exchange, financing on industry financing commence which require short term loan financing, agriculture sector etc. On the basis of their functions and specialty, the bank can be classified in the following ways:

❖ **Agriculture Bank**

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[1] Federal U.S.A. Law.

It focuses on the development of agriculture sector by providing loan and technical assistance to the farmers to increase productivity in the agriculture sector.

- ❖ **Commercial Bank**

    It accepts deposits, creates credits and provides loan with the view of earring profits.

- ❖ **Development Bank:**

    It specially provides financial and technical assistance to the particular sectors.

- ❖ **Industrial bank**

    It assures financial and technical assistance for the promotion and development of industries of a country.

    Summarizing the above descriptions, banks are those financial institutions that offer the widest range of financial and multiple banking services like credits, savings, payment etc to their clients, parties, industries etc.

1.2 Evolution of banking industry

Banking is nearly as old as civilization. The ancient Romans developed and advanced banking system to serve their vast trade network, which extended slowly throughout Europe, Asia and much of Africa

According to historical sources, the word 'Bank' is derived from Italian word 'Banco' which means a bench.

The Italian goldsmiths used to conduct the monetary tasks by sitting on the bench, which was called Banco in Italy .At that time, there was no-well managed money market as in present day. Gradually, it developed into a well-managed form and people started to use the word 'bank' for the certain place whereby the monetary transactions were conducted.

In the early age, the Goldsmiths used to store peoples' gold charging nominal charges and issued receipts to depositors which was good for payments. At the time, this was done for security rather than interest. Later on, they stated advancing the money charging interest the goldsmith- moneylender started performing the functions of modern banking system i.e. accepting deposits and advancing loans.

However, the modern banking was originated in Italy in 1157 A.D. with the establishment of the first bank 'Bank of Venice' to finance the Monarch in the wars. Similarly, 'Bank of Barcelona' and 'Bank of Genoa' were also established in 1401 A.D. and 1407 A.D. respectively. With Large banking firms established in Florence, Rome, Venice and other Italian Cities, banking activities spread throughout Europe and slowly spread all over the world. Since the 1960's banking has become much more international because of the increase in the number of multinational companies and the spread of their operations worldwide.

1.3 History of Banking Industry in Nepal

Nepal is a small landlocked nation hidden in the Himalayan, mountains nestled between India and China. Both the countries have matured economic conditions

where as Nepal is one of the under developed countries in the world with almost 40% of the total population living below poverty line as it is ranked as one of the world's poorest nation as well.

The development of banking is relatively recent in the context of Nepal. As in other countries, Goldsmiths and Land Lords used to carry out banking activities during the tenure of the prime minister Ranoddip Singh 'Tejrath Bandobasta Adda' first step towards the institutional development of banking in Nepal, was established in 1933 B.S. Tejrath Bandobasta Adda did not accept the deposits, the foremost task of saving in the part of people was lacking and they could not perform the task of mobilizing idle resources in productive sectors.

Bank is truely started with the inception of Nepal Bank Limited on 30th Kartik, 1994 B.S. It is the first commercial bank of Nepal established by Prime Minister Juddha Shumsher Rana. It has carried out functions of a commercial bank the authorized capital was contributed by government 51% and remaining 49% by public. Nepal Bank Limited had a herculean responsibility of attracting people towards banking sector from Sahu Mahajan's transactions and introducing other bank services as well. Later on, Nepal Rastriya Bank was established on 14th Baishak 2013 B.S. as Central Bank of Nepal under Nepal Rastriya Bank Act 2012 with the prime objectives of formulating monetary policies in the country. As Nepal adopted development programmes in the mid-fifties, the nation felt lack of mobilizing financial resource. Existing banking with only one commercial bank was unable to extend adequate services in the national economy. Then, Rastriya Banijya Bank was set up on 10th Magh, 2022

B.S. Under Banijya Bank Act 2021" as fully government owned commercial bank. Furthermore, Nepal industrial Development corporation (NIDC, 1st Ashad,2016B.S), Agriculture Development Bank (ADB, 7th Magh 2024 B.S.) and security Exchange center (SBC Jestha 2051 B.S.) were also established. However, with the increase in the number of these financial institutions, the banking and financial activities spread to both urban and rural areas time to time.

In this way, the history of banking system is not so old. An organized banking system is relatively a recent phenomenon. Nepal Bank Limited as a commercial bank started the process of modern banking system in 1994 B.S. after a long time. In order to uplift the national economy, Government of Nepal permitted to establish joint venture banks under commercial bank Act 2031.28 commercial banks have been operating to facilitate more and more banking services so far. For the purpose of the study, the research includes three Joint venture banks, namely Nabil Bank Limited, Nepal Investment Bank Limited and Bank of Kathmandu Limited. Nabil Bank Limited is the oldest one among these three banks is terms of establishment. A brief description of three sampled banks in Nepal is as follows:

❖ **Nabil Bank Limited (NABIL):**

Nabil Bank Limited, the first foreign joint venture of Nepal, started operations on 29th Ashad, 2041 B.S. Nabil was incorporated with the objective of extending international standard modern banking services to various sectors of the society. pursuing its objective, Nabil provides a full range of commercial

banking services through its 19 points of representation across the kingdom and over 170 reputed correspondent banks across the globe.

Nabil Bank Limited was formerly known as Nepal Arab Bank Limited also Nabil, as a pioneer in introducing many innovative products and marketing concepts in the domestic banking sector, represents a milestone in the banking history or Nepal as it started an era of modern banking with customer satisfaction measured as a focal objective whole doing business.

Operations of the bank including day-to-day operations and risk management are managed by highly qualified and experienced management team. Bank is fully equipped with modern technology which includes ATMs, Credit Cards, State-of-art, World-renowned software from Infosys Technolgies system, Banglore, India, Internet banking system and Telebanking system.

Share Subscription

Share subscription of NABIL has been divided into two parts: Institutional promoters (Nabil Bank) owns 70% of total share capital and general public owns 30% of total share capital.

Share Subscription

30%

70%

◻ Instiutitional Promoters   ◻ General Public
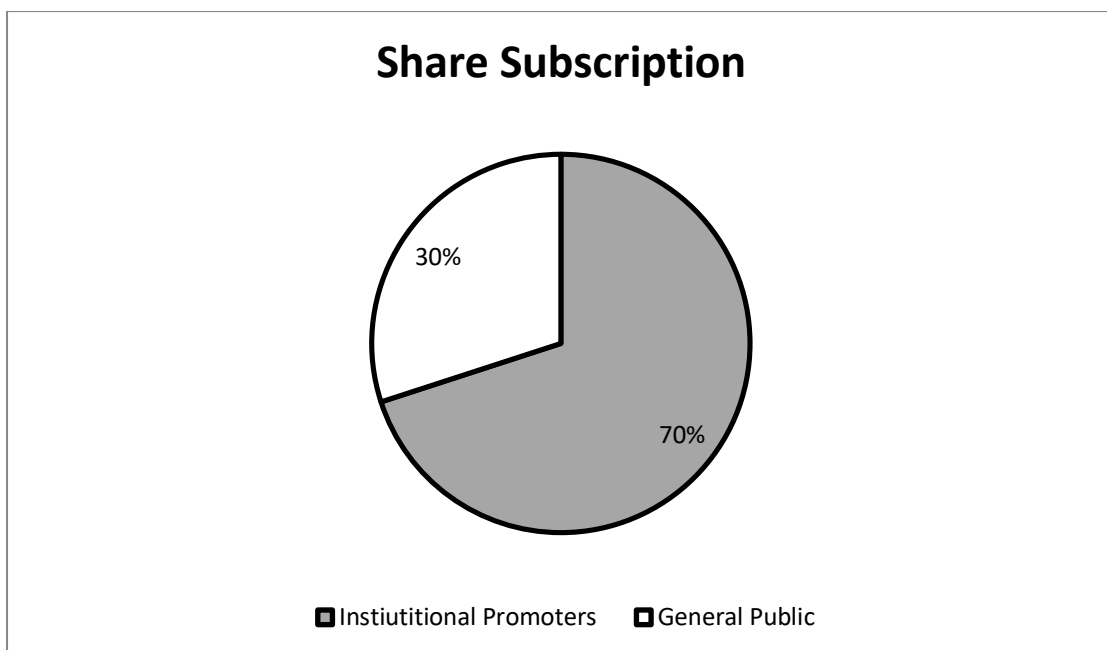
Figure No. 1

❖ **Nepal Investment Bank Limited (NIBL)**

Nepal Investment Bank Limited (NIBL), previously Nepal Indosuez Bank Limited, was established on 26th Falgun, 2042 B.S. as a joint venture between Nepalese and French partners. The French partner holding 50% of the capital of NIBL was credit Agricole Indosuez, a subsidiary of one the largest banking group in the world. The name of the bank has been changed to Nepal Investment Bank Limited upon approval of bank's Annual General Meeting.

To be the leading Nepal bank, delivering world class service through the blending of state-of-the-art technology and visionary management in partnership with competent and committed staff, to achieve sound financial health with sustainable value addition to all our stakeholders. This bank is committed to do this mission while ensuring the

highest levels of ethical standards, professional integrity corporate governance and regulatory compliance.

The strategic objectives of NIBL is to develop a customer oriented service culture with special emphasis on customer care and convenience, to increase our market share by following a disciplined growth strategy, to leverage our technology platform and pen scalable system to achieve cost-effective operations, efficient MIS, improved delivery capability and high service standards, to develop innovative products and services that attracts our targeted customers and market segments, to maintain a high quality assets portfolio to achieve strong and sustainable returns and to continuously build shareholders' value.

Share Subscription

Share subscription of NIBL has been divided into four parts a group of companies holds 50% of total share capital. Rashtriya Banijya Bank and Rastriya Beema Sansthan holds 15% of total share capital equally & the General Public holds 20% of the total share capital.

Share Subscription
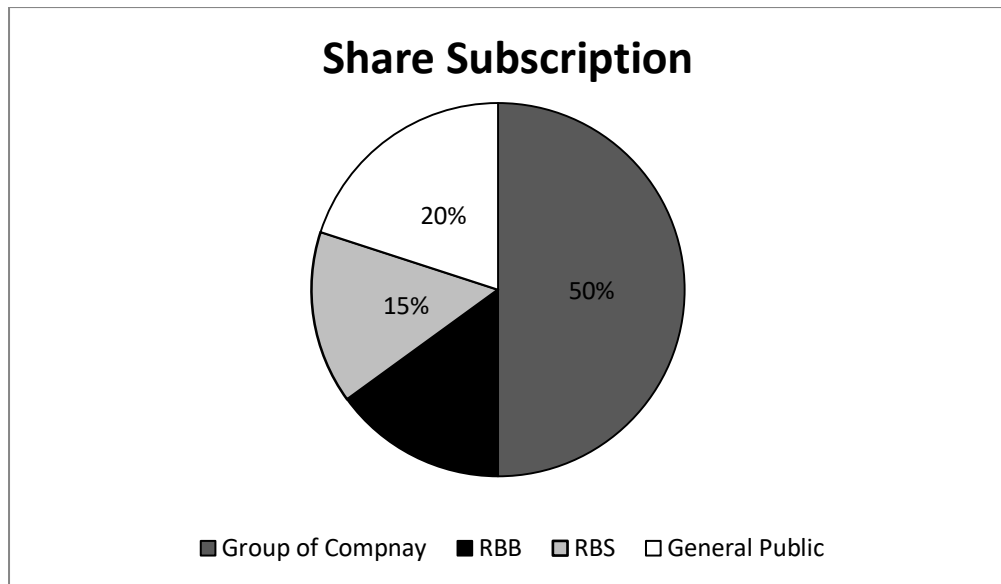
Figure No. 2

❖ Bank of Kathmandu Limited (BOKL)

Bank of Kathmandu Limited started its operation on 28th Falgun 2051 BS. with the objective to stimulate the Nepalese economy and take to newer heights. BOKL also aims to facilitate the nation's economy and to become more competitive globally and 'Bank of Choice' by dedicating to the progress and growth of the institution for the community, customers, employees, supervisors and stockholders.

With the aim of providing banking services at the customers fingertips, BOKL is starting Internet Banking and Alert Service very soon. It will provide consumer e-banking (Core, Retail and Bill payment) as well as corporate e-banking facilities (Trade Financing and web based cash management). BOKL has a corporate slogan that is "We make your life easier" also.

Share Subscription

Share Subscription of BOKL has been divided into two parts Nepalese professionals own 42% of total share capital and general public owns 58% of total share capital.
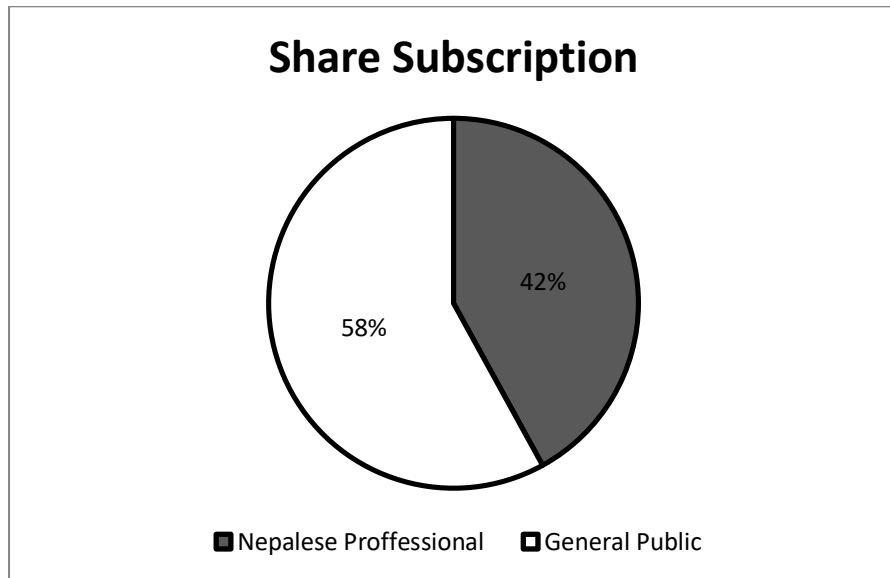
Share Subscription

■ Nepalese Proffessional □ General Public

Figure No. 3

The share structure of NABIL, NIBL and BOKL is tabulated below:

S. No.	Particulars	Name of the Bank		
		NABIL	NIBL	BOKL
1	Authorized Capital (Rs. in Million)	1600	4000	1000
2	Issued Capital (Rs. in Million)	965.75	2407.83	844.40
3	Paid up Capital (Rs. in Million)	965.75	2407.07	844.40
4	Per value of Share	100	100	100
5	No. of share Capital	9657470	24070689	8443979
6	No. of Branches	37	31	31

1.4. Statement of the Problem

Although Joint Venture Commercial Banks are operating in Nepal after the government of Nepal adopted the open liberal and market oriented economic policy, the financial sectors have not been able to meet the growing resources and needs to the economy as expected before due to unstable political and economic condition of the country and lack of optimal capital structure in the commercial banks.

In fact, a comparative study on capital structure analysis is a mirror of strength and weaknesses of a bank. A strong Joint venture bank contributes highly to national economy and also attracts further foreign

investment in this sector. It may be an exemplary lesson to existing as well as new coming JVBs. Therefore, to answer the problems of JVBs, a comparative study on capital structure management of Nabil Bank Limited, Nepal Investment Bank Limited and Bank of Kathmandu Limited is included here, to examine whether these sampled banks are economically and financially sound or not.

1.5 Objecives of the Study

The main objectives of this study are to analyse and compare the capital structure management of three JVBs and affects on the risk and returns of these sampled banks in the context of Nepal. To support these main objectives, the further some objectives of this study are mentioned below:

- ❖ To evaluate the position of capital structure management of three JVBs.

- ❖ To show the relationship between return on shareholder's equity and EPS.

- ❖ To examine the relationship between total debt and owners capital

- ❖ To find out the Earning per share

- ❖ to provide the proper guidelines to the potential investors.

1.6 Significance of the study

Development of banking sector is the fundamental framework of economic development for a country, which generates employment opportunities as well as makes the nation economically stronger. Most of the business organizations have been operating without sound capital structure so, the capital structure should be managed properly in the company. Only the establishment of any business organization is not important thing however, operating the company effectively and efficiently is

essential. The significance of the study is to maximize wealth by increasing the stock price and to minimize the overall cost of capital or weighted Average cost of capital of JVBs. By analyzing the capital structure of commercial banks. It helps to find out their strength and weakness and drive these banks into right track. There are different stakeholders in the banks having their own interest and desires, where the main responsibility of the firm is to make them satisfy. It is possible only through the optional capital structure decision.

Similarly, this study helps to find out the risk factors related to capital structure management, to assist financial managers as a guideline and minimize the opportunity cost of capital and maximize shareholders' wealth. In overall, the study will be a guideline to improve the capital structure position that the company's EPS may increase as well as provide necessary information's and its drawbacks to the shareholders. It helps to increase the firm's ability or efficiency to raise funds in future. The findings of this study shall be useful to the policy maker of these banks, potential investors, interested researchers and the students as well.

1.7   Limitations of the Study

A research study is not an easy task that requires deep and vast study abut related problems to investigate the solution. This study is needed for the partial fulfillment of MBS degree to complete within a short span of time. So, this is not far from several limitations, which weaken the objectives of the study. some of the major limitations are as follows:

- ❖ This study covers only the financial aspects.

- ❖ The data used in this study are taken in Rs. million to avoid the errors.

- ❖ The study based on secondary data of website of each bank which is assumed reliable and fact.

- ❖ The study has used five years' data of each bank which may not be sufficient for the study of this topic.

- ❖ In this study, fiscal year 2004/05 A.D. is assumed as base year.

- ❖ Out of 28 commercial banks, only 3 leading banks are taken to analysis the study.

- ❖ It contains unaudited Annual Report, 2008/09 of Nepal Investment Bank Limited.

1.8   Organization of the Study

The comparative study on capital structure management of three Joint Venture Banks has been mainly divided into five chapters which are as follows:

Chapter 1 Introduction

Background of the study, Evaluation of Banking Industry History of Banking Industry in Nepal, statement of the problem, objectives of the study, significance of the study, limitations of the study.

Chapter 2 Review of Literature

Conception Framework, Theories of capital structure, Approaches to capital structure, leverage, Review of Related studies.

Chapter 3 Research Methodology

Research design, Data Collation, procedure, Data Analysis tools (Financial tools and statistical tools.)

Chapter 4 Data Presentation and Analysis

Profitability Ratio Analysis, Coefficient of Correlation Analysis, leverage Analysis, Capital Structure, Analysis.

Chapter 5 Summary, Conclusion and Recommendation

Summary, Conclusions, Recommendation.

CHAPTER – 2

REVIEW OF LITERATURE

This chapter contains the review of literature. The review of literature is helpful to show the needs of the research work and to justify the work. It provides more informations and descriptions of the related terms. There are different ways to present the review but it is presented in this way:

2.1 Conceptual Framework

"Capital Structure refers to the mix of long-term sources of funds, such as debentures, long-term debt, preference share capital and equity share capital including reserves and surpluses"[2]

"Capital structure is the proportions of debt instruments and preferred and common stock on a company's balance sheet"[3]

"The optimal Capital structure maximizes the value of the firm and reduces the cost of capital"[4]

"The term 'Capital Structure' is used to represent the proportionate relationship between debt and equity".[5]

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[2] Bhattarai, Rabindra, (2005) "Capital Structure Management", Kanchan Printing Press, Kathmandu, Nepal, P.1

[3] Van Horne, James C. (2004),12th Edition,"Financial Management Policy", Prentice Hall of India, P.253

[4] Gautam, Rishi Raj & Thapa, Krisha (2008). "Capital Structure Management" Kathmandu, Nepal, Asmita Publication, P. 296.

[5] Pandey, I.M. (2005),9th edition,"Financial Management", India, Vikash Publishing House Pvt.Ltd. P.289.

"If there is an optimal capital structure for a company it will minimize the opportunity cost of capital and maximize the shareholder's wealth"[6]

"The debt Equity mix has implications for the shareholders' earnings and risk, which in turn, will affect the cost of capital and the market value of the Firm"[7]

2.2   Theories of Capital Structure

Capital Structure is a mix of long-term sources of financing. It deals with the relevance of the proportion of debt and equity to the value and cost of capital. So, it is an important subject, especially for firms while determining a capital structure, a firm tries to develop an optimal capital structure. The optimal capital structure is that structure which maximizes the value of a firm and minimizes the overall cost of capital (i.e. weighted average cost of capital)

Basically, the theories of capital structure are distinguished into six different groups:

❖ Traditional Theory

❖ Modigliani Miller Theorem

❖ Trade off theory

❖ Free cash flow theory

❖ Pecking order theory

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[6]   Weston. J.Fred & Copelanet Thomas E. (1998),"Managerial Financial" The Dryden press, 9th ed. P. 565

[7]   Pandey, I.M. (2005), 9th edition, "Financial Management", India, Vikash Publishing House Pvt. Ltd. P. 290.

❖ Stakeholder theory

❖ **Traditional Theory**

"According to this view, a judicious mix of debt and equity capital can increase the value of the firm by reducing the WACC upto certain level of debt"[8] This theory clearly implies that WACC decreases only within the reasonable limit of financial leverage and reaching the minimum level, It starts increasing with financial leverage. Hence a firm will have an optimum capital structure that occurs when WACC is minimum and there by maximizing the value of the firm.

Although debt funds are cheaper than equity funds, this theory certainly rejects to finance all with debt because after a certain level of debt, the risk of Non-payment increases. Thus, shareholders and debt-holder (Financiers) demand a higher compensation.

❖ **Modigliani-Miller Theorem**

Although It is not a realistic theory, the MM theory states that if the capital structure decision has no effect on the cash flows generated in the firms, the decisions will have no effects in the absence of transaction costs-on the total value of the firm's debt and equity. It indicates that there is no relationship

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8   Pandey, I.M. (2005), 9th edition, "Financial Management", India, Vikash Publishing House Pvt. Ltd. P. 316.

between a firm's market value and the capital structure.

❖ Trade off Theory

The tradeoff between the costs and returns of debt financing determines the optimum debt ratio. The firm considers this ratio as a target debt ratio because this ratio will maximize the market value of the Firm. It is assumed that the firms need to adopt their capital structure to reach that ratio. But the capital structure needs time and costs. Therefore, It is much possible that the present debt ratios may differ from target ratios.

According to Brealey Myer "A static trade off framework in which the firm is viewed as setting a target debt to value ratio and moving gradually towards to it in much the same way that a firm adjusts dividends to more towards a target payout ratio"[9]

❖ Free Cash Flow Theory

This theory presumes that there are enormous conflicts of interest between shareholders and stakeholders. This implies that manager's decision doesnot always maximize the market value of the firm. A free cash flow is the balance of money, when all the projects with positive net present value are financed. Debt reduces the agency costs of free cash

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[9]   Myers, Brealey. (2005), 25th "Principles of Corporate Finance" Tata Mc Graw-Hill publishing Company Ltd. P. 509.

flow by reducing cash flow available for spending at the discretion of managers.

Debt reduces the freedom of decisions because the firm is forced to pay interest and payoffs at certain times. There, will be risk that a firm won't be able to pay interest and payoffs in future times, Hence this risk causes managers to lead and organize a firm more efficient.

❖ **Pecking order Theory**

The 'pecking order' theory is based on the assertion that Managers have more information's about their firms than investors Managers will issue debt when they are positive about their firms' future prospects and will issue equity when they are unsure. A commitment to pay to fixed amount of interest and principal to debt holders implies that the company expects steady cash flows. On the other hand an equity issue would indicate that the current share price is overvalued. Therefore, the manner in which Managers. raise capital gives a signal of their belief in their firms prospects to investors.

The following are the basic assumptions of this theory

a. Firms prefer internal ways to finance projects.

b. Firms adopt their target dividend payout ratios to available investment resources.

c. Internal resources of a firm are fluctuating because of unpredictable fluctuation of profitability.

d. When firms need extra resources, they prefer the safest way of getting funds, this means that firms prefer debt to convertible stocks and common stocks.

❖ **Stakeholder theory**

Cornell and Shapiro (1987) assume that not only investors have much interest in a firm. There are different groups of Non-investors, stakeholders and some of them have a lot of influences in the financial policy of a firm or as cornel and Shapiro wrote financial structure may also depend on a firm's net organizational capital and on the nature of its stakeholders. Examples of Non-investor shareholders are customers, employees and suppliers.

Non-investor stakeholders can hold implicit claims such as the right to provide service to customers or job-security for employees.

2.3   Approaches to Capital Structure

Different approaches have been developed under the relevancy of capital structure to value of firm and cost of capital: They are as follows:

❖ Traditional Approach

❖ Net Income Approach

❖ Net Operating Income Approach

❖ Modigliani-Miller's Approach

All the above approaches are based on the following common assumptions, which are as follows:

1. Only two types of capital are employed: Long term debt and common stock.

2. There is no tax on corporate income.

3. The firm's total assets are fixed, but its capital structure can be changed immediately by setting debt to repurchase common stock, or stock to retire debt.

4. All earnings are paid out as dividends.

5. All investors have the same subjective probability distributions of expected future operating earnings (EBIT) for a given firm: that is, investors have homogeneous expectations.

6. The operating earnings of the firm are not expected to grow, that is, the firms expected EBIT is same in all future periods.

7. The firm's business risk is constant over time and is independent of its capital structure and financial risk.

8. The firm is expected to continuous indefinitely.

Besides these assumptions, It uses the following basic definitions and symbols:

Debt,

$$\text{Cost of Debt (Kd)} = \frac{\text{Interst}}{\text{Debt}} = \frac{I}{B}$$

$$\text{Value of Debt (B)} = \frac{\text{Interest}}{\text{Kd}} = \frac{I}{\text{Kd}}$$

Equity of common stock,

$$\text{Cost of Equity (Ke)} = \frac{D1}{P} + g$$

$$\text{Value of Equity (S)} = \frac{\text{EBIT}}{\text{Ke}} + g$$

Overall cost of capital or weighted Average cost of capital (K_o), or (WACC),

$$K_o = W_d K_d + W_e\, K_e$$

Or

$$K_o = Kd\left(\frac{B}{V}\right) + Ke\left(\frac{S}{V}\right)$$

$$K_o = \frac{\text{Kd(B)}}{\text{B+S}} + \frac{\text{Ke(S)}}{\text{B+S}}$$

Total value of the firm (V),

$$V = B+S$$

$$V = \frac{I}{Kd} + \frac{\text{EBIT}-\text{I}}{\text{Ke}}$$

Where,

B   =   total market value of debt

S   =   total market value of equity

V   =   total value of the firm

I = Interest payments or Annual Interest Charges

D_1 = Expected Dividend or Next year's dividend

P_o = Current Price per share

g = Expected growth rate

Wd = Proportion of debt

We = Proportion of equity

$EBIT$ = Earnings before Interest and Tax or Net Operating Income.

2.3.1 Traditional Approach

This approach assumes the capital structure as relevant matter for the value and cost of capital of the firm. It takes some features of both net Income and net operating income approach this approach strikes a balance between the two different approaches net income and net operating income. Therefore, it is also known as the intermediate approach. It resembles the net income approach in arguing that cost of capital and total value of the firm are not independent of the capital structure. But it doenot subscribe to the view of NI approach that value of a Firm will necessarily increase for all degree of leverage.

"According to this approach there is an optimal capital structure therefore the firm can increase the total value of the firm through the wise use of leverage. The

firm initially can lower its overall cost of capital through the use of the cheapest cost debt and raise its total value through leverage But the increase in leverage increases the risk to the debt holders and the debt holders demand high interest rate as a result the overall cost of capital also increases"[10]. It is shown in the Figure
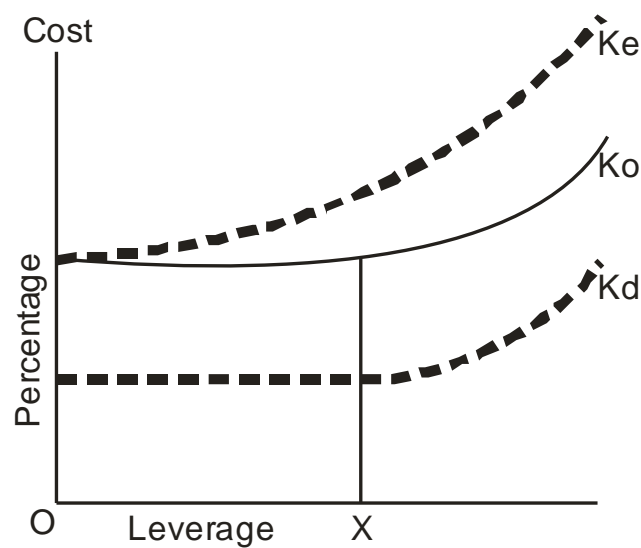

Figure No. 4

At first, the overall cost of capital declines with increase in debt ratio because the rise in Ke does not entirely offset the use of cheaper debt funds. As a result, the weighted Average cost of capital K_o, declines with moderate use of leverage. After a point, However, the increase in K_e more than offsets the uses of cheaper debt funds in the capital structure, and K_o begins to rise. The rise in K_o is supported further one K_d begins to rise. The optimal capital structure is the point at which K_o bottoms

[10] Bhattarai Rabindra(2005)"Captial Structure Management"Kanchan Printing Press, Nepal P.346–347

out. In the figure, this optimal capital structure is point x thus, the traditional position implies that the cost of capital is not independent of the capital structure of the firm and that there is an optimal capital structure.

The traditional Approach on the relationship between capital structure and the Firm has three stages:

➢ **First Stage : Increasing Value:**

In the first stage, the cost of equity (K_o), the rate at which the shareholders capitalize their net, income, either remains constant or rises slightly with debt. The cost of equity doesnot increase fast enough to offset the advantages of low-cost debt. During this stage the cost of debt (K_d) remains constant since the market views the use of debt as a reasonable policy. As a result, the overall cost of capital(K_o) decreases with increasing leverage, and thus, the total value of the Firm(V) also increases.

➢ **Second Stage: Optimum Value**

Once the firm has reached a certain degree of leverage, increases in leverage have a negligible effect on WACC and hence, on the value of the firm. This is so because the increases in the cost of equity due to the added financial risk just offsets the advantage of low cost debt. Within that range or at the specific point, WACC will be minimum, and the maximum value of the firm will be obtained.

➢ **Third Stage: Decline Value**

Beyond the acceptable limit of leverage, the value of the firm decreases with leverage as WACC increases with leverage. This happens because investors perceive a high degree of financial risk and demand a higher equity capitalization rate which exceeds the advantage of low cost debt.

The overall effect of these three stages is to suggest that the cost of capital (WACC), is a function of leverage. It first declines with leverage and after reaching a minimum point or range starts rising the relation between cost of capital and Leverage is graphically shown in figure.
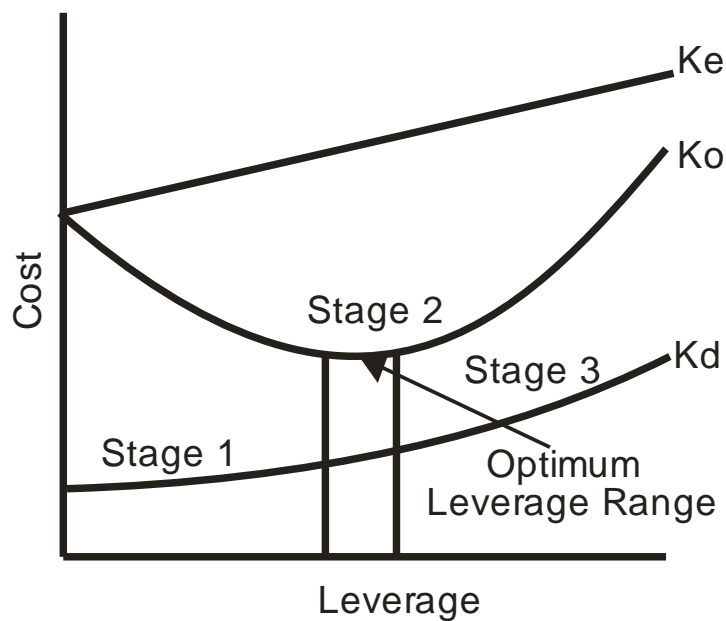

Figure No. 5

The cost of capital (Source Shaped)

The above figure indicates that the overall cost of capital curve(K_o) is saucer-shaped with a horizontal range, this implies that there is a range of capital structures in which the cost of capital is minimized. (K_e), is assumed to increase slightly in the beginning and then at a faster rate.

2.3.2 Net Income Approach (NI)

David Durand and proposed the Net Income Approach in 1952 A.D. This approach states that the capital structure decision is relevant to the valuation of the firm and the overall cost of capital. In other words, a change in the financial leverage (proportion of debt in the capital structure) will lead to a corresponding change in the overall cost of capital as well as the total value of the firm therefore, if the ratio of debt increases in the capital structure, the weighted average cost of capital will decline and the value of the firm as well as the market price of ordinary shares will increase and vice-versa.

Further more the firm attends an optimal capital structure when it uses 100% debt financing. Running a business with 100% debt financing however, is quite impractical in the real world. The firm can achieve optimal capital structure by making judicious use of debt and equity and attempt to maximize the market price of its stock. Thus, this approach is a relevant theory of capital structure. The following are the basic assumptions of Net income approach.

a. There are no taxes

b. The cost of debt is less than the equity capitalization rate or the cost of equity

c. Cost of equity and cost by debt remain constant.

d. The use of debt doesnot change the risk perception of investor.

e. Overall cost of capital decreases as leverage increases.

The effect of leverage on the firm's cost of capital and the total market value of the firm is graphically shown below:
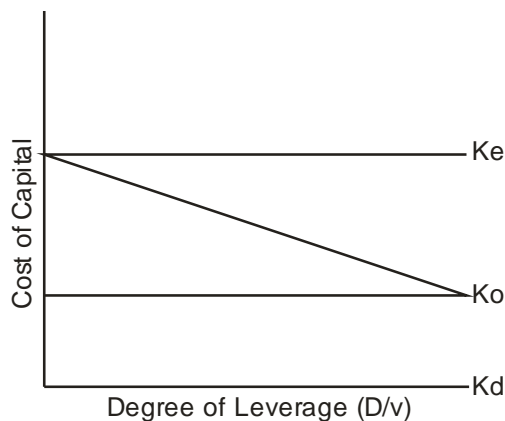
Figure No. 6

The effect of leverage on the capital structure
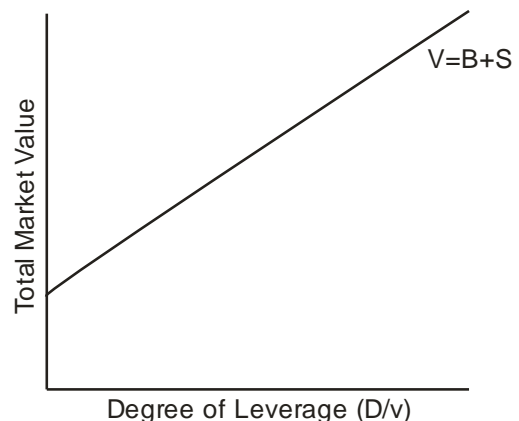
Figure No. 7

The effect of leverage on the total market value of the firm

Figure 6 Shows that a continuous decrease in K_o with the increase in debt-equity ratio, since any decreases in K_o directly contributes to the value of the firm, it increases with the increase in the debt- equity ratio (Figure 7). According to the NI approach, the financial leverage is on important variable in the capital structure decision of a firm. Therefore, under the NI approach, a firm can determine an optimal capital structure.

The importance of the net income approach is that the firm can lower its cost of capital by using debt. The approach is also based on the assumption that the use of debt does not change the risk perception of the investors. Consequently, the interest rate of debt and the equity capitalization rate remain constant to debt. Therefore, the increase use of debt will bring maximum value and minimum WACC (K_o).

2.3.3 Net Operating Income Approach (NOI)

David Durand developed the Net operating Income approach in 1952 A.D. This approach assumes that the capital structure (proportion of debt and equity) is irrelvent to the value of the firm and the overall cost of capital. Under NOI approach, the Net operating income i.e. Earnings Before interest and taxes (EBIT) is taken as the base instead of net income. This approach assumes that the equity holders do react to higher leverage risk and demand higher rate of return for higher debt equity ratio. It also says that the cost of equity increase with the debt level and the higher cost of equity offset of benefit of cheaper debt financing resulting no effect at all on overall cost of capital.

At last NOI is capitalized at an overall capitalization rate to obtain the total market value of the firm. Both NOI and the firm's opportunity cost of capital are assumed to be constant with regard to the level of financial leverage. NOI approach is opposite from the NI approach with respect to the assumption of the behavior of equity holder and debt holders, the NOI approach is based on the following assumptions:-

a. The Market Capitalizes the value of the firm as a whole thus, the split between debt and equity is not important.

b. The market uses an overall capitalization rate, (K_o) to capitalize the net operating income. K_o depends on the business risk if the business risk is assumed to remain unchanged, K_o is constant.

c. The use of Less costly debt funds increases the risk of shareholders. This causes the equity – capitalization rate to increase. Thus, the advantages of debt are offset exactly by the increase in the equity capitalization rate (K_e).

d. The debt capitalization rate (K_d) is constant.

e. The corporate income taxes donot exist.

The relationship between financial leverage and K_e, K_o and K_d has been graphically depicted in following figures.
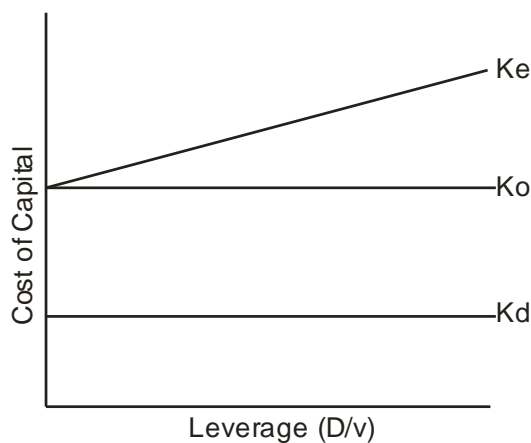
Figure No. 8

The effect of Leverage on
Cost of Capital
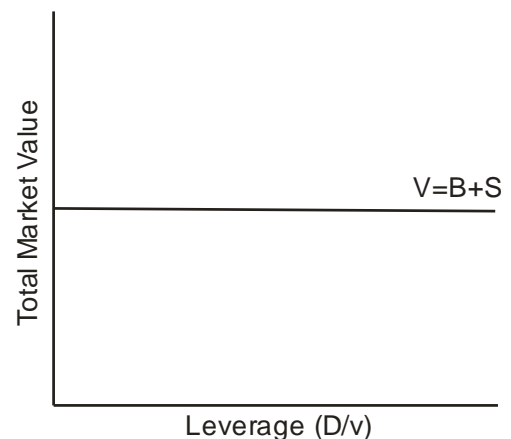
Figure No. 9

The effect of Leverage on   Firm.
total market value of the

The figure shows that the curve Ko and Kd are parallel to the horizontal x-axis and Ke is increasing continuously this is because Ko & Kd remain constant in the Leverage. Thus, there is no single point or range where the capital structure is optimum. We know obviously from the figure that under the NOI approach, as low cost of debt is used. Its advantage is exactly off set by increase in cost of equity in such a way that the cost of capital remains constant. The value of the firm also remains constant. At the extreme degree of financial leverage, hidden. cost becomes very high hence the firm's cost of capital & its market value are not influenced by the use of additional chap debt fund.

2.3.4 Modigliani-Miller Approach (MM approach)

MM approach was developed by Nobel Prize Winners Franco Modigliani and Merton Miller in financial Economics is 1958 A.D. MM approach agrues that, in perfect capital Markets without taxes and transactions costs, a firm's market value and the cost of capital remain invariant to the capital structure changes. The value of the firm depends on the earnings and risk of its assets (business risk) rather than the way in which assets have been financed.

MM position is based on the idea that no matter how you divide up the capital structure of a firm among debt equity & other securities, there is conversion of investment value.

The MM argument is applicable under the following critical assumptions:

a. Perfect capital markets

b. Investors are rational

c. Information's are available at free of cost.

d. No transactions cost.

e. Infinitely divisible securities

f. An investor can not affect the market price of a security.

g. In absence of flotation costs on securities issued by the firm perfect certainly by every investor as to future investment and profits of the firm.

The MM hypothesis can be best explained in terms of their two propositions:

Proposition I

"MM's proposition I argues that for the same risk class, the total market value is independent of that debt-equity mix and is given by capitalizing the expected net operating income by the capitalization rate appropriate to the risk class"[11] This can be expressed in equation as follows:

Total value of the firm (V) = Total Market value of debt(B)+total market value Equity (E)

$$OR \quad = \frac{Net\ Operating\ Income}{Opportunity\ cost\ of\ capital} = \frac{NOI}{Ko}$$

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[11] Ibit.P. 266.

$$OR \quad = \frac{\text{Earning Before Interest and Taxes (EBIT)}}{\text{Overall Cost of Capital (Ko)}}$$

For an Unlevered Firm $V_u = \dfrac{\text{EBIT}}{K_e}$

Where Ke = Ko In the case of an Unlevered firm, the entire NOI is the shareholders net income. Therefore the Unlevered firm's WACC or Kd is equal to its opportunity cost of capital.

Under MM's proposition 1, the firm's overall capitalization rate (Ko) can be expressed. Ko is the ratio of NOI to the Market value of all its securities that is.

$$K_o = \frac{\text{NOI}}{B+S} = \frac{\text{NOI}}{V}$$

K_o can also be expressed as:

$$K_o = \frac{K_e(S)}{B+S} + \frac{K_d(B)}{B+S}$$

It means, K_o is the weighted average of the expected rate of return of equity and debt capital of the firm. MM Concludes that the total market value of the firm is unaffected by the financing mix. It follows that the cost of capital is independent of the capital structure and is equal to the capitalization rate of pure equity stream of its class.

The overall cost of capital function as hypothesis by MM is shown below:
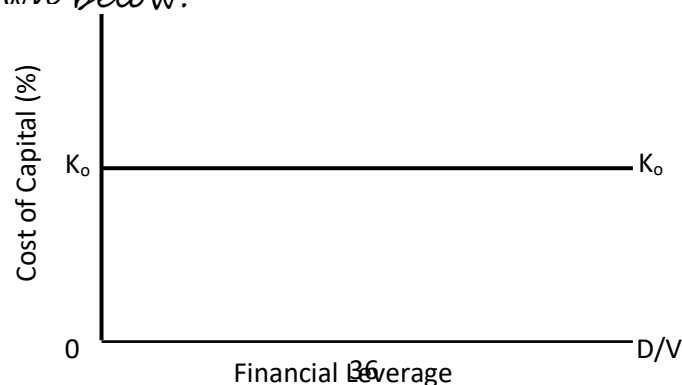
Figure : 10

The cost of capital under MM proposition I

Since the values of the levered and unlevered firms and the expected net operating income(NOI) donot change with financial leverage, the WACC would also not change with financial leverage. Hence, MMs proposition I also implies that the WACC for two identical firms, one levered and another unlevered, will be equal to the opportunity cost of capital as a result, the financial leverage has no effect on shareholder's wealth.

Proposition II

MM's proposition II states that financial leverage affects shareholders return (EPS and ROE). EPS and ROE increase with leverage when the interest rate is less than the firm's return on assets. Financial leverage also increases shareholders' financial risk by amplifying the variability of EPS and ROE. Thus, Financial risk causes two opposing effects. It increases the shareholder's return but It also increases their financial risk. Shareholders will increase the required rate of return on their investment to compensate for the financial risk. The higher the financial risk, the higher the shareholders required rate of return or the cost of equity.

The equation for the cost of equity can be derived from the definition of average cost of capital.

$$K_o = K_e \times \frac{B}{B+S} + K_d \frac{SO}{B+S}$$

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

The above equation shows that financial risk premium of a levered firm is equal to debt equity ratio D/E times the spread between the constant opportunity cost of capital and the cost of debt ($K_o - K_d$). The required return on equity is positively related to financial leverage, because the financial risk of shareholders increases with financial leverage. The cost of equity (K_e) is a linear function of financial leverage, D/E it is noteworthy that the functional relationship given in equation II is valid irrespective of any particular valuation theory. For example MM assumes, the leveraged firm's opportunity cost of capital (K_o) to be constant while according to the traditional view ko depends on financial leverage.

The cost of equity under MM proposition II is shown below:

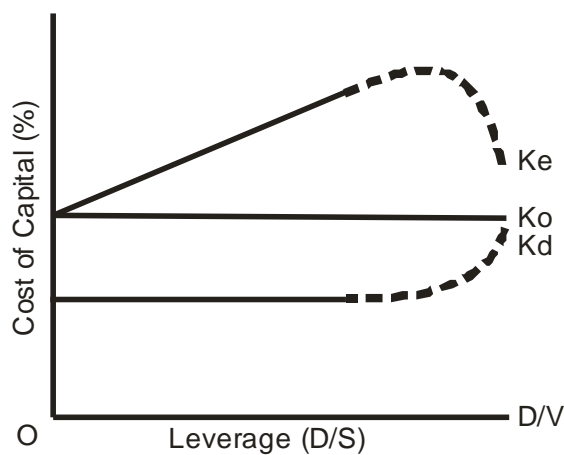

Figure No. 11

Cost of equity under MM proposition II

The above figure s indicates that the leveraged firm's opportunity cost of capital will not rise even if very excessive use of financial leverage is made. The excessive

use of debt increases the risk of default. Hence, in practice, the cost of debt, (K_d), will increase with high level of financial leverage. MM argues that when K_d increases, K_e will increase at a decreasing rate and may even turn down eventually. The reason for this behavior of K_e is that debt holders, in the extreme levered situations, own the firm's assets and bear some of the firms business risk. As soon as the marginal rate of interest cuts the cost of capital, K_e will start decling soon.

2.4. Leverage

The term leverage refers to the use of that source of funds in the business which has to pay fixed charges and irrespective to the earnings of firm "The Leverage factor is the ratio of the book value of total debt (B) to total assets (TA) in book value terminology or the market value of debt (B) to the total value(V) of the firm in market value terminology".[12]

There are two types of leverage: Financial leverage and operating leverage.

Operating Leverage

It refers to the way the firm's assets are financed" and is associated with financial activities. It is a way of maximizing the business risk of a company and causes a change in sales volume to have a magnified effect on EBIT. It is associated with investment activities

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[12] Westom. J Freds Copeland, Thomas E. "managerial Finance" The Dryden press international, 9th Ed. P. 575..

Financial Leverage

The debt is risky as well as more advantageous in the context of earnings. The use of debt and preferred stock financing provide the income advantages over the common stock financing of the firm under the favourable condition and they increase risk too. The interest and principal payments are to be paid go it is risky in the view point of the shareholders. It is the change in the shareholders' return caused by the change in the profits.

2.5. Review of Related Studies

Review of Thesis

Mrs. Deepa Adhikari (Adhikari, Deepa, "A Comparative study on capital structure of Joint Venture Banks in Nepal". Standard Chartered Bank Limited, Everest Bank Limited and Himalayan Bank Limited Unpublished Master's Thesis, T.U. Biratnagar, 2007)

The basic objectives of the study are to evaluate the position of capital structure management of three JVBS to examine the relationship between total debt & owner's 'capital and to show the relationship between return on shareholder's equity and E PS.

The study has concluded the following points 'as':

a. A capital structure of any organizations is affected by different types of environment such as management attitude, shareholders. expectation and socio-economic condition of the country regarding

this bank, Top level management plays a vital role to decide different financial decisions.

b. SCBL and EBL have used short-term debt largely where as HBL has used both short-term and long term debt.

c. The dividend payout ratio of all the sampled banks is not constant the EBL has not paid the dividend earlier three years yet. Whereas the SCBL has paid with portion of earnings as dividend retaining less earnings.

d. The average earning per share of banks is not seen satisfactory except SCBL. The SCBL has the highest average EPS with more consistency and less fluctuation.

e. The expenditure trend of the banks is increasing which is not sound for the banks.

Mrs. Sujata Garagain (Guragain, Sujata, "capital structure of commercial Banks" Nepal SBL, Luxmi Bank Limited and Everest Bank limited unpublished Master's Thesis, TU Biratnagar, 2008.)

The main objectives of the study are to evaluate debt servicing capacity of the sampled banks, to examine long term solvency of the sampled banks and to find out capital adequacy/sufficiency ratio of these banks.

The study has concluded the following points as:

a. NSBL and Luxmi Bank Ltd. both had borrowed from the local and foreign institutions. The trend of total borrowing for both bank is fluctuating more. EBL had borrowed from outside only in fiscal year 2061/62.

b. The deposit trend of NSBL, LBL and EBL seem to be increasing over the last five years.

c. The total liabilities of NSBL, LBL and EBL seem to be increasing over the years. LBL is in increasing trend inspite of being a new bank.

d. The share capital of NSBL and Luxmi Bank Ltd is increasing each year. However the trend of increasing of NSBL is expectedly high in 2062/63 Where as LBL's trend is very high in the fiscal year 2060/61. The share capital of EBL remains at 45 Billion for 3 consecutive years.

Mrs. Bibeka Sharma (Sharma, Bibeka "Capital Structure of commercial Banks of Nepal". Bank of Kathmandu and Himalayan Bank Limited, Unpublished Master's Thesis, TU Biratnagar, 2008.)

The primary objectives of the study are to analyze the capital structure of sampled bank in Nepal, to evaluate the role of capital structure on the growth of the commercial banks and to analyze the relationship of capital structure with variables such as earning per share dividend per share and net worth.

The study has also concluded the following points as:

a. BOKL has 0.09% of average Long term debt to total debt ratio, which indicates that about 99.9% of the total debt is contributed by current liabilities. Whereas HBL has the average ratio of 1.15%.

b. HBL seems to have the highest return of 1.16% in comparison of 1.02% of BOKL in terms of return on total assets of the two commercial banks.

c. As BOKL has the average ratio of 1% and HBL has average of 18%. It concludes that two banks don't have adequate ratio of Long term debt to capital employed and among the two in average HBL has employed more of the Long term debt in the capital than BOKL.

d. Debt to total Assets ratio express the relationship between creditors fund and total assets. The debt ratio or debt to total assets ratio of BOKL and HBL is negligible which concludes that the debt used as the capital are negligible.

CHAPTER – 3

RESEARCH METHODOLOGY

The term 'Research Methodology' is composed of two words, 'Research' and Methodology'. Simply, research refers investigation or careful study or systematic and objective attempt, especially in order to discover new facts or information. In other hand, a set of methods used in a particular area of activity is known as methods used in a particular area of activity is known as methodology.

The research, it generates new knowledge, which can be used for different purposes in other words. It is a systematized effect to gain new knowledge furthermore, the research is used to build a theory, develop policies, support decision-making and solve problems. With the opening of new frontiers of knowledge through research, new concepts and theories are developed to explain, verify and analyze the social phenomena"[13]

Methodology is the method of research used to test the hypothesis. It refers to the systematic method consisting of the problem, formatting the hypothesis collecting the data and analyzing the facts to reach the certain conclusion.

"Research is a systematic and organized effort to investigate a specific problem that needs a solution. This process of investigation involves a series of well thought out activities of gathering recording analyzing and interpreting the data with the purpose of finding answers

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[13] Wolf H.KI. & Pant P.R. (2000), "A Hand Book for social Science Research & Thesis writing" Buddha Academic Enterprises Pvt. Ltd. Nepal. P. 204..

to the problem. Thus the entire process by which we attempt to solve problems is called research"[14]

Therefore, research methodology is a way solve the research with systemic rules, methods or working system where research can be undertaken for two different purposes. The first purpose is to solve a currently existing problem in the work setting and the second purpose in to generate a new knowledge in a particular area to develop a base of knowledge upon which theory can be built.

Hence, "Research Methodology refers to the various sequential steps to be adopted by a research in studying a problem with certain object in view"[15]

3.1 Research Design

The research design provides the framework to the study which is also the outline of a plan to test the hypothesis. It conceptualizes the structure of research and refers to the entire process of planning and carrying a research study. The research design contains what approach should be taken, what methods will be used, what strategies will be the most effective? This design includes hypothesis formulation, data collection and generalization of research.

"Research design is the plan, structure and strategy of investigations conceived so as to obtain answers to research

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[14] Ibid, P. 203.

[15] Kothari C.R. 3rd revised Ed. 1999 "Quantities Technique" Vikash Publishing House (P) Ltd. India P. 19

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questions and to control variance"[16] The research design in the strategy for conducting research. It describes the general framework for collecting analyzing and evaluating data after identifying (i) What the researcher wants to know, and (ii) What has to be dealt with in order to obtain required information."[17]

The research design has basically two purposes: the first one is to provide answers to research questions and the second one is to control variance. There are many types of research design such as conventional research Historical research case study research, descriptive research, Development research action research etc.

The research study is considered to analyze the capital structure of three joint venture banks. Under this, the historical research design is applied because historical research design is concerned with past Phenomena. It is a process of collecting, evaluating, verifying and synthesizing past evidence systematically and objectively reach a conclusion. The capital structure management of joint venture banks is also concerned with past evidence. Therefore, the study has adopted the past financial statements of last five years. Such as Balance Sheet and Profit & Loss A/C. In conclusion, research design is made

as combination of tools to measure the position of capital structure in the company.

3.2 Data Collection Procedure

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[16] Ibid P. 56
[17] Ibid P. 209

There are two types of data collection procedure: primary data and secondary data. Almost secondary data have been utilized under this study such as annual reports of sampled banks through related websites. Most of the data have been processed and interpreted as per the need of this study.

3.2.1 Nature and Sources of Data

The data is mainly conducted on the basis of secondary data. The financial statements of balance sheet and profit & Loss A/C have been collected from the published annual reports of 5 years period through related websites. Other supplementary data are collected from a number of institutions and regulation authorities such as Nepal Rastriya Bank, Nepal Stock Exchange Limited, Security Exchange board etc.

3.2.2 The Population and Sample

Population is the aggregate of objects, animate or inanimate under study in any statistical investigation. It is also a group of individuals. This study is related with the capital structure management of joint venture banks. Presently there are 28 commercial banks functioning in various parts of Nepal, which is called the size of population. Some of these population are as follows:

1. Nepal Bank Limited

2. Nabil Bank Limited

3. Nepal Investment Bank Limited

4.   Himalayan Bank Limited

5.   Nepal Bangladesh Bank Limited

6.   Nepal SBI Bank Limited

7.   Everest Bank Limited

8.   Bank of Kathmandu Limited

9.   Nepal Credit & Commerce Bank

10. Lumbini Bank Limited

Sample is a part chosen from the population sample refers the 'part of the whole' which helps to researcher to draw conclusions about these observations included in the sample. Out of 28 commercial banks 3 leading private banks: Nabil Bank Limited, Nepal Investment Bank Limited and Bank of Kathmandu Limited are considered as samples to carry out this thesis.

3.3 Tools of Analysis

For the purpose of data analysis, various financial & statistical tools have been used to achieve the objectives of the study. The help of such financial statements can evaluate capital structure management of three JVBs using financial & statistical tools and techniques.

3.3.1 Financial Tools

Financial tools are used to asses financial strengths and weakness of the firm by establishing and identifying changes among different figures of the financial

statements. In other word, these tools help to establish the numerical relationship between the two relevant accounting figures derived from the financial statements/ reports in the form of quotient, proportion or percentages and based on that, an assessment is made about the capital structure management of the sampled banks.

The important financial tools are Ratio Analysis, Leverage or Capital Structure ratios, and Profitability ratios.

3.3.1.1 Ratio Analysis

An analysis of financial statements with the help of ratio is termed as ratio analysis. The ratio is the measurement of quantitative relationship between two or more items of financial statement connected with each other. In other word, ratio analysis is a tool of obtaining different relationship between different business terms in simple mathematical value. Therefore "A Ratio analysis is expression of the quantitative relationship between two numbers". [18]

3.3.1.2   Leverage or Capital Structure Ratios

The bank finances its assets with ownership and creditor-ship fund. So, a proper balance should be maintained between ownership and creditor-ship fund from both risk and return point of view. Leverage ratio shows the degree or extent of debt availed by the organization/bank and its capacity to

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[18] Muna Karmi S.P. , (2002), "Management Accounting" Buddha Academic Publisher & Distributors (P) Ltd. 1st Ed. P. 462

serve such debt credit worthiness and the financial risk of the banks can be judged with the help of these ratios. The following ratios are computed in this group.

a. Debt-Equity Ratio

It is the ratio of total debt to total assets. It generally indicates the relative proportions of capital contributed by creditors and owners to finance the assets of the firm/bank the ratio of debt to equity varies according to the nature of the business and volatility of cash flows. Basically, creditors prefer a low-debt equity ratio so as to have greater protection of their interest. Whereas owners prefer higher ratio with a desire to increase earnings per share. The debt equity ratio can be calculated as:

$$\text{Debt Equity Ratio} = \frac{\text{Long Term debt}}{\text{Shareholder's Equity}} \text{ or } \frac{\text{Total Debt}}{\text{Shareholder's Equity}}$$

Where,

Long term Debt = Creditor-ship fund /Fixed Deposits

Shareholder's equity = Net worth.

Total Debt = Long term debt + Current liabilities

Interpretation:

Higher ratio is not preferable for a company. The lower ratio is much preferable.

b. Debt to Total Capital Ratio

The ratio includes the relationship between long-term debt and total capital and shows the degree of relation and protection of total capital employed against long term or total debt. This ratio relates outside liabilities not merely to the shareholders fund but to the total capitalization of the firm also. It is a test of long term solvency of a firm. The formula of debt to total capital ratio is written as:

$$\text{Debt to total capital ratio} = \frac{\text{Long debt}}{\text{Permarent Capital}} \text{ or } \frac{\text{Total Debt}}{\text{Total Capital}}$$

Where,

Permanent Capital/ Capital Employed = Shareholder's fund

+ Long term debt.

Interpretation

Higher ratio is not favourable for a company. The lower ratio is much favourable.

c. **Interest Coverage Ratio**

It is also termed as times interest Earned ratio. It judges the ability of the firm's income to pay its annual interest by establishing the relationship between. Income before interest and Taxes (EBIT) and Interest Expenses. It is computed as:

$$\text{Interest Coverage ratio} = \frac{Earing\ Before\ Interest\ \&\ Taxes}{Interst\ Expenses}$$

Where,

EBIT=Profit after tax +Interest tax + Interest Expenses

Interpretation

Higher ratio shows that a firm can pay its annual interest easily so, the increasing ratio is acceptable.

3.3.1.3 Profitability ratio

Profitability is an indicator to judge the operating efficiency of a firm. Profitability ratio measures the earnings of the firm generated from sales and investments for a certain period of time. The banks should earn profits to survive and grow over the long period of time but not at the cost of employees, customers and society. Hence It helps the banks to measure its financial status correctly. This ratio also contains the following ratios.

a. **Return on Total Assets**

This ratio shows the relationship of net profit and total assets. It is to determine how efficiently the total assets have been used by the banks and measure the rate of return earned by the banks as a whole for the all its investors after interest and taxes. It is calculated as:

$$\text{Return on total Assets} = \frac{\text{Net Profit after tax} + \text{Interest}}{\text{Total Assets}}$$

Interpretation

Higher ratio indicates the higher return on assets or on amount contributed by investors on account of efficient management of assets or capital. So, Higher ratio is favourable.

b. Return on net assets or capital employed

This ratio expresses the relationship between net profit after tax and capital employed. It also indicates the efficiency of fund supplied by creditors and owners. It is computed as:

$$\text{Return on Capital Employed} = \frac{\text{Net Profit after tax+Interest}}{\text{Net Assets or Capiral Employed}}$$

Interpretation

Higher ratio implies better return on permanent capital employed by the firm.

c. Return on Shareholder's fund (ROA)

This ratio measures the relationship between net profit after interest and taxes and shareholder's fund. The objective of computing this ratio is to determine how efficiently the funds supplied by shareholders have been used. It is computed as:

$$\text{Return on Shareholders fund} = \frac{\text{Net Profit after tax}}{\text{Total Shareholders Fund}}$$

Interpretation

Higher ratio reflects the more profitability enjoyed by the shareholder, whereas poor or lower ratio reflects reverse situation.

d. Earning per Share (EPS)

EPS is another measure widely used to judge earning potentiality of the common shareholder's investment in the firm or a per share basis. It's computed as:

$$EPS = \frac{Net\ Profit\ after\ tax - Perference\ dividend}{No.of\ Common\ Shares}$$

Interpretation

Higher the ratio, better the performance of the firm.

e. **Dividend Per Share (DPS)**

The amount of earnings distributed and paid as cash dividend on equity or common shares is considered as Dividend per share. It is calculated as:

$$DPS = \frac{Dividend\ paid\ on\ eqity\ Shareholders}{No.of\ Equity\ Shares}$$

Interpretation

Higher the ratio, greater the attraction towards the firm from the part of investors.

3.3.1.4 Leverage Analysis

The degree of financial leverage as a part of leverage analysis also reflects the leverage of the firm as similar as above ratios. DFL is the percentage change in earnings available to common stock holder (EPS) associated with a particular percentage change in EBIT. This is a relationship between EBIT and EBT. Under this study, the following relationship will be used.

$$DFL = \frac{\% \text{ Change in EPS}}{\% \text{ Change in EBIT}} = \frac{\text{EBIT}}{\text{EBT}} = \frac{\text{EBIT}}{\text{EBIT}-\text{I}}$$

Interpretation

The higher ratio of DFL indicates the higher financial risk as well as higher fixed charges of the company and vice-versa.

3.3.1.5   Capital Structure Analysis

Various approaches such as TM, NI, NOI, MM have been developed under the relevancy of capital structure to evaluate the value of firm and cost of capital. All of these approaches are based on the market value. There are some complexity in traditional Approach and MM Approach. Thus net income and net operating income approaches are used in this study. It is computed as:

Value of the firm (V)=Value of debt (B) + Value of Equity (S)

$$\text{Overall cost of capital } (K_o) = \frac{\text{EBIT (NOI)}}{\text{V}}$$

$$\text{Equity Capitalization rate } (K_e) = \frac{\text{NI}}{\text{S}}$$

Where,

Net Income = EBIT − Interest

3.3.2 Statistical Tools

The statistical tools play a vital role to evaluate the position of capital structure of the firm and to meet the objectives of the study. It helps a financial Manager to

observe the position of capital structure that what's happening in the firm. Thus, the statistical tools can be used as supporting tools for financial analysis. Under this study the following different statistical tools have been used to analyze the capital structure of three joint venture banks.

a. Arithmetic Mean

Arithmetic Mean is the set of all the observations divided by the number of observation. It is also known as the arithmetic average. It is calculated as:

Arithmetic Mean $(\bar{x})$ = $\frac{\sum X}{N}$

Where,

Ex = Value of the observation

N = No. of observations.

$\bar{x}$ = Mean or Average

b. Standard Deviation

Standard Deviation is the positive square root of the mean of the square of the deviations taken from the arithmetic mean. It is a statistical measure of the variability of a set of observations. The square root of the variance of the rates of return is called the standard deviation of the rates of return. It is computed as.

Standard Deviation (O) = $\sqrt{\frac{\sum\limits_{t=1}^{T} P_{t\,[R_1-\bar{R}]^2}}{T}}$ = $\sqrt{\frac{Ex^2}{n} - \left(\frac{Ex}{n}\right)^2}$

Interpretation

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The smaller the standard deviation, the lower the riskness of the stock and Vice-versa.

c. Correlation Coefficient:

Correction coefficient is also a measure of the relationship between two assets. It helps in determining the extent to which the two assets are correlated but does not tell us about cause and effect relationship. Its values are limited between. The range of +1 and −1. It is denoted by 'r' and computed as:

Interpretation

i.   When r is +1, There is perfect positive correlation between the variables.

ii. When r is −1, there is perfect negative correlation between the variables.

iii. When r is zero, there is no correlation between the variables.

Correlation Coefficient $(r) = \dfrac{N\Sigma XY - \Sigma X.\Sigma y}{\left(\sqrt{N.\Sigma x^2 - (\Sigma x)^2}\right)\left(\sqrt{N.\Sigma Y^2 - (\Sigma Y)^2}\right)}$

d. Coefficient of Variation (C.V.)

The coefficient of dispersion based on standard deviation multipled by 100 is known as the coefficient of variation (C.V.). If x be the arithmetic mean and O. The standard deviation of the distribution, then the C.V. is defined by:

C.V. $= \dfrac{\delta}{X} \times 100$

Interpretation

Less the CV, More will be the uniformity, Consistency etc. More the CV, less will be the uniformity, consistency etc.

3.4 Trend Analysis

Trend is the general tendency of the time data to increase or decrease or stagnate during a long period of time. Trend analysis is one of the most important statistics tools to evaluate the movement of financial variables over a period of time. Various data related to capital structure have been analysed here in terms of time series to show the trend percentage of Net worth, total deposits, total investment and net profit after tax. The following formula can be used to compute the Index percentage of trend analysis.

$$\text{Trend (Index) percentage} = \frac{Index\ Yealy\ amount}{Base\ Year's\ amount}\ X\ 100\%$$

CHAPTER – 4

DATA PRESENTATION AND ANALYSIS

Data presentation and analysis is an important aspects to evaluate and analyze the capital structure management of three Joint venture banks. This chapter has been prepared to provide actual and practical information of the sampled banks and in terms of this chapter, conclusion and recommendation can be drawn easily.

Furthermore, various financial variables have been presented in numerical form to achieve the financial decisions. Similarly, ratio analysis, leverage analysis capital structure, analysis, arithmetic mean, standard deviation, co-relation coefficient etc. have been employed to analyze the position of capital structure management of three NBS as a main tool.

The comparative study on capital structure management of three. JVBS can be persecuted, analyzed and interpreted by using above mentioned tools as follows.

4.1 Profitability Ratio Analysis

Profitability is net result of a large number of policies and decisions. It gives final answer about how effectively the firm is being managed. Management alone is not interested in the profitability of the firm but the creditors and owners are equally interested. Creditors want to get interest as return of principal whereas owner/Investors want to get a reasonable return on their

investment. The profitability ratio of NABIL, NIBL and BOKL is presented using following tools.

4.1.1 Earring per Share

Earning per share in a widely used ratio in assessing the profitability of a firm from the owners point of view. In other words. It measure the percentage of profit available to the equity holders on a per share basis. It also indicates investor's judgment or expectation about the firm's performance EPS is the signal of financial strength and weakness of the sampled banks. It is calculated by dividing total earnings available to common stock holders by number of common shares outstanding.

The following table shows the EPS of NABIL, NIBL and BOKL.

Table No. 1

Earnings Per Share (Rs.in Million)

Year Bank	2004/05	2005/06	2006/07	2007/08	2008/09	Mean	S.D.	C.V.
NABIL	105.79	129.21	137.08	108.31	106.76	117.43	13.2	11.16
NIBL	39.50	59.35	62.57	57.87	38.00	51.46	10.50	20.40
BOKL	30.10	43.67	43.50	59.94	54.68	46.38	10.33	22.27

Source: Annual Report of NABIL, NIBL & BOKL

The above table reveals that the EPS of NABIL has ranged from Rs. 105.79 to Rs. 137.08. The nature of ratio is fluctuated the EPS of the first three years was increased and decreased then after till 2007/08 again, increased in 2008/09 due to increase in total earnings. The average EPS of NABIL's Rs. 11743

and S.D. is 13.10. The C.V. of this bank is 11.16% which indicates that there is a low fluctuation in the EPS over the period of the study NABIL has the highest average EPS among the sampled banks under the study.

NIBL has an average EPS of Rs. 51.46 ranging from Rs. 38 to Rs. 62.57. The bank has been able to maintain. Its average EPS for the first three years but after that it has fluctuated its EPS. The S.D. is 10.50 and C.V. is 20.40 Which indicates maderate fluctuation in the EPS.

BOKL has an average EPS of Rs. 46.38 ranging between Rs. 30.10 and Rs. 59.94. The highest EPS of BOKL is Rs. 59.94 in F.Y. 2007/08. Which is the lowest EPS among the selected banks. This EPS is not be satisfactory. There is a high fluctuation of 22.27% in the EPS of BOKL over the period.

From the above analysis, NABIL has the highest EPS among the selected banks where as BOKL has the lowest EPS. It can be seen that NABIL is able to generate more earnings with best performance and also utilizes its funds proportionately. So, NABIL is strong in stock market than NIBL and BOKL.

4.1.2 Dividend Per Share (DPS)

Dividend implies the portion of net profit which is distributed to the shareholders as return on their investment DPS is the cash dividend paid on equity / common shares on a per share basis. Higher DPS

attracts a large number of potential investors in the firm. It is calculated by dividing total amount of proposed dividend by number of equity shares.

DPS of NABIL, NIBL and BOKL has been tabulated below

Table No. 2

Dividend Per Share (Rs.in Million)

Year Bank	2004/05	2005/06	2006/07	2007/08	2008/09	Mean	S.D.	C.V.
NABIL	70	85	140	100	85	96	23.96	24.96
NIBL	12.50	54.46	30	40.83	-	27.56	19.45	70.57
BOKL	15	18	20	40	47.37	28.07	13.06	46.53

Source: Annual Report of NABIL, NIBL & BOKL

The above table shows that DPS of NABIL has ranged between Rs. 70 and Rs. 140. The average DPS of NABIL is Rs. 96 which is the highest DPS among the selected banks. The CV is 24.96%. So, there is a moderate fluctuation. It is paying Dividend between than NIBL and BOKL.

DPS of NIBL is moderate not so higher. Its DPS is ranging from Rs. 12.50 to Rs. 54.46 over five years period. The average DPS of NIBL is Rs. 28.07 and S.D. is 19.45. It is comparatively lower than BOKL also. There is a higher fluctuation in DPS of NIBL.

DPS of BOKL is increasing every year. Its DPS is ranging from Rs. 15 to Rs. 47.37. Its average DPS is Rs. 22.07 Which is the lowest DPS among the selected banks. The CV. is 46.53% that is less attractive than NABIL because NABIL has less CV.

From the above analysis, It is seen that NABIL is the most attractive among these sampled banks in terms of cash Dividend and shareholder's point of view because NABIL is paying mere dividend every year to its shareholders than NIBL and BOKL.

4.1.3 Return on Total Assets (ROA)

Return is the net profit after tax and total assets is the assets excluding fictitious assets.

Return on Total Assets ratio is examined to measure the profitability of all financial investment in the banks. It is very important for effective assets management also. The ROA of three joint venture Banks is presented below:

Table No. 3

Return on Total Assets   (Rs.in Million)

Year\Bank	2004/05	2005/06	2006/07	2007/08	2008/09	Mean	S.D.	C.V.
NABIL	3.05	2.84	2.47	2.01	2.35	2.54	0.37	14.57
NIBL	1.44	1.64	1.82	1.79	1.70	1.68	0.14	8.33
BOKL	1.41	1.65	1.80	2.04	2.25	1.83	0.29	15.85

Source: Annual Report of NABIL, NIBL & BOKL

The above table examines that net profit on total assets ratio of NABIL quite better than other two banks in spite of fluctuating return over the years. The mean ratio of ROA of NABIL is Rs. 2.54 which is the highest one.

The mean ratio of ROA of NIBL is Rs. 1.68 which is the lowest net profit among the sampled banks. The C.V. of NIBL is less than others it shows that there is more uniform net profit over the years.

The net profit has been increasing over the years in BOKL. Its net profit is ranging between Rs. 1.41 and Rs. 2.25. It ranks on second position among the sampled banks.

From the above analysis, it is interpreted that the NABIL has shown better performance than NIBL and BOKL. So, NABIL is relatively efficient in utilizing overall resources.

4.1.4 Return on Shareholder's fund (ROE)

This ratio is a measure of profitability of the firm in respect of the utilization of total shareholder's fund. The shareholder's fund is the sum of equity share capital and reserve & surplus. It also encourages the investors for buying the shares of that firm.

The ROE of NABIL, NIBL and BOKL is tabulated below:

Table No. 4

Return on Shareholder's Fund (Rs.in Million)

Year Bank	2004/05	2005/06	2006/07	2007/08	2008/09	Mean	S.D.	C.V.
NABIL	31.38	33.88	32.76	30.63	32.94	32.32	1.16	3.59
NIBL	19.67	24.77	26.68	25.93	23.05	24.02	2.50	10.41

| BOKL | 19.36 | 24.11 | 26.72 | 26.94 | 26.51 | 24.73 | 2.87 | 11.61 |

The above table reveals that ROE of NABIL has ranged between Rs. 30.63 and 33.88. The mean ROE is Rs. 32.32 and C.V. is very low it means NABIL has been able to utilize its shareholder's equity properly.

The ROE of NIBL is Rs. ranging from Rs. 19.67 to Rs. 26.68. The mean ROE is Rs. 24.02 and C.V. is higher than NABIL it means NIBL'S ratio is fluctuating over the years. So it has a moderate performance.

BOKL is not performing better than NIBL. Its ROE is ranging from Rs. 19.36 to R. 26.94. The mean ROE of Rs. 24.73 is higher than NIBL but lower than NABIL. The CV is also greater than NIBL but lower than NABIL. So, BOKL also has a moderate financial performance in terms of ROE.

Thus, the ROE in case of NABIL is favourable for the stock holders because. It represents the sound management and efficient mobilization of the owner's equity.

4.1.5 Interest Coverage Ratio

The ratio of EBIT and Interest Expenses measures the ability of the firm to meet its annual interest payments to its debt holders. It is also known as Times Interest Earned Ratio.

Table No. 5

Interest Coverage Ratio   (in %)

Year Bank	2004/05	2005/06	2006/07	2007/08	2008/09	Mean	S.D.	C.V.
NABIL	411.16	351.43	279.06	243.58	228.21	302.69	68.91	22.77
NIBL	194.11	202.84	205.52	202.80	176.85	196.42	10.52	5.36
BOKL	193.94	207.52	224.34	239.07	229.18	218.81	16.09	7.35

Source: Appendix – I

The above table reveals that ICR of NABIL is in decreasing trend. Its ICR ranges between 411.16% to 228.21%. The maximum ICR of the bank is 411.16% in fiscal year 2004/05. Whereas the minimum ICR is 228.21% in FY 2008/09. The bank has been able to pay its annual interest on time. The CV of NABIL is 22.77% which reflects the bank has comparatively strong power of interest payment

Similarly, the ICR of NIBL is fluctuating every year. The bank is comparatively weak to maintain above its average ICR in four year besides 2006/07 A.D. The CV of NIBL is 5.36%. Which reflects the lowest capacity to pay its annual interest among selected banks.

Likewise, the ICR of BOKL is increasing till first four years but decreasing in 2008/09. The average ICR of the bank is 229.18% which has been well maintained in last 3 years. The CV of the bank is 7.35% which is better than NIBL but worse than NABIL.

From the above analysis, It represents the average ICR of NABIL is the highest i.e. 302.69% and that of NIBL is the lowest i.e. 196.42% ICR shows the ability of

interest payment of the bank. Therefore, the NABIL has certainly the ability to offer assured payment of interest to the creditors.

4.1.6. Debt-Equity Ratio

The Debt-Equity Ratio shows the relationship between total debts. i.e. Long term Debt as fixed deposits plus current liabilities and shareholder's fund. It is also known as External-Internal Equity Ratio. The debt-equity Ratio of three JVBs can be presented in the following table.

Table No. 6

Debt-Equity Ratio   (in %)

Year / Bank	2004/05	2005/06	2006/07	2007/08	2008/09	Mean	S.D.	C.V.
NABIL	929.43	1090.94	1244.88	1423.58	1301.41	1194.05	170.77	14.30
NIBL	1261.12	1406.96	1369.07	1346.83	1120.46	1300.89	102.13	7.85
BOKL	1272.00	1362.18	1383.75	1220.49	1076.86	1263.06	110.41	8.74

Source: Appendix-II

The above table indicates that the D/E ratio of NABIL ranges between 929.43% to 1423.58%.The bank is able to maintain its average ratio in last 3 years but fails in first 2 years. The CV of the bank is highest among the figure which shows that the risk is increasing yearly.

The average D/E ratio of NIBL is 1300.89% which reveals the lowest among the sampled banks. There is fluctuation over the periods. It is unable to maintain over its average ratio in 2004/05 and 2008/09

respectively. After all, the bank has the lowest risk among the figure due to the lowest CV i.e. 7.85%.

The D/E ratio of BOKL range s between 1076.86% to 1220.49%.The bank is able to maintain over its average ratio in the first 3 years but fails in 2007/08 and 2008/09 respectively. There is moderate fluctuation in D/E Ratio of BOKL. And the CV of the bank is 8.74% which is the second lowest and indicates less risk.

The above analysis shows that both NIBL and BOKL are engaged in short term debt more but the NABIL has used the long term debt much over the periods. Thus, the D/E Ratio of NIBL is much preferable.

4.1.7 Debt to total Capital Ratio

It is used to measure the relative share of the debt in total capital of three JVBs. Furthermore, this ratio shows the relationship between total debt and permanent capital including current liabilities. The following table can present Debt to total capital Ratio of Sampled banks.

Table No. 7

Debt to Total Capital Ratio   (in %)

Year\Bank	2004/05	2005/06	2006/07	2007/08	2008/09	Mean	S.D.	C.V.
NABIL	412.36	384.20	336.30	311.41	346.97	358.25	35.79	9.99
NIBL	317.18	269.91	252.21	309.79	288.74	287.57	34.22	8.42
BOKL	254.69	305.07	322.06	312.28	292.30	297.28	23.40	7.87

Source: Appendix–III

The above table shows that the debt to total capital Ratio of NABIL for the last 3 years is below the average and it indicates that the bank's leverage is at safe level but the first and second year's D/TC Ratio is in higher risk.

Similarly, the D/TC ratio of 2005/06 and 2006/07 of NIBL is quite safe because they are less than its average where as Rest 3 years D/TC ratio is not safe due to over use of leverage. but the CV of NIBL is 8.42% which indicates that It is the least risky than sampled banks.

The D/TC Ratio of BOKL in 2004/05 and 2008/09 is better than remaining years due to less average ratio but in overall it is in the highest risk among the figure.

From the above analysis, it indicates that the NABIL is more risky in terms of average D/TC Ratio and NIBL is comparatively less risky in terms of CV i.e. 8.42.

4.1.8 Return on Net Assets or Capital Employed.

This ratio basically expresses the relationship between Net profit after tax as return plus interest on long term debt and capital employed. The ROCE ratio of 3 JVBs can be shown in the following table:

Table No. 8

Return on Capital Employed Ratio   (in %)

Year	2004/05	2005/06	2006/07	2007/08	2008/09	Mean	S.D.	C.V.

Bank								
NABIL	13.92	11.93	8.99	6.70	8.78	10.06	2.55	25.35
NIBL	4.95	4.75	4.92	5.96	5.35	5.19	4.34	83.62
BOKL	3.88	5.40	6.22	6.89	7.20	5.92	1.19	20.10

Source: Appendix-IV

The above table indicates that the ROCE ratio of NABIL in 2004/05, 2005/06 & 2006/07 is more than its average and the last 2 years ratios are below its average. The CV of the bank is 25.35% which reveals the lowest risk also.

Similarly the ROCE Ratio of NIBL is in meliorate fluctuation trend the three year's ratios are below its average of 5.70%. The highest ROCE ratio is 5.96% which is able to gain much profit in the particular year. The CV of 83.62% of the NIBL indicates its dangerous performance.

The ROCE of BOKL is in increasing trend ones the 5 years periods. It is able to maintain its average ratio in the last 3 years but fails in 2004/05 and 2005/06. The return position is quite better in terms of its CV.

In conclusion, the NABIL is successful bank in earning its highest profit but more risky than BOKL. The NIBL is most risky with less return also among the selected banks.

4.2 Capital Structure Analysis

Capital structure is the proportion of debt, preferred stock and equity in a company's balance sheet. While determining a capital structure, a company tries to develop an optimal capital structure which maximizes

the value of a firm and minimizes the overall cost of capital.

Capital structure can be analysed under net income approach and net operating income approach. These approaches have been presented below:

4.2.1 Net Income Approach

Table no. 9

Comparative Position of Overall Capitalization Rate under NI Approach

(Rs. in Million)

Fiscal Year (in A.D.)	NABIL		NIBL		BOKL	
	Overall cost of Capital (K_o)	Value of the Firm (V)	Overall cost of Capital (K_o)	Value of the Firm (V)	Overall cost of Capital (K_o)	Value of the Firm (V)
2004/05	5.87%	17064.08	4.28%	16063.54	4.74	9888.53
2005/06	5.62%	22329.97	4.67%	21330.14	5.21	12278.33
2006/07	5.69%	27253.39	5.11%	27590.84	5.22	14570.10
2007/08	4.98%	37132.76	5.18%	38873.31	5.63	17721.93
2008/09	6.00%	43867.40	5.55%	53739.44	6.30	20496.01
Mean (x)	5.63%	29529.52	4.96%	31519.45	5.42	14990.98
S.D.	0.35	9754.85	0.44	13460.67	0.52	3777.14
C.V.	0.06	0.33	0.09	0.43	0.10	0.25

Source: Appendix–VI

The overall cost of capital (K_o) of NABIL ranges between 4.98% to 6%. The bank has used more debt in 2007/08 which is preferable for owners but unpreferable for creditors/ debenture holders. It is the least risky among the selected banks.

Similarly, the overall cost of capital (K_o) of NIBL has been increasing over the periods. It indicates that the

financial leverage has decreased periodically. It is less risky.

The overall cost of capital (K_o) of BOKL has also been increasing periodically. The financial leverage has decreased more than NIBL. But it is more risky due to more C.V. i.e. 0.10.

In conclusion, In terms of average K_o and CV, NABIL is much better but in terms of trend, BOKL is the most suitable bank here.

4.2.2. Net operating Income Approach

Table No.10

Comparative position of effect of Debt on Equity Capitalization Rate under NOI Approach:

(Rs. in Million)

Fiscal Year (in A.D.)	NABIL		NIBL		BOKL	
	Equity Capitalization Rate (K_e)	LTD	Equity Capitalization Rate (K_e)	LTD	Equity Capitalization Rate (K_e)	LTD
2004/05	45.72%	2078.54	28.27%	3512.27	31.49%	2878.87
2005/06	47.89%	3449.09	35.67%	5962.97	39.46%	2909.75
2006/07	48.37%	5435.19	38.52%	8316.69	42.95%	3237.17
2007/08	44.68%	8704.09	37.96%	8994.23	43.27%	3903.18
2008/09	47.27%	8610.71	29.43%	12683.38	41.77%	4674.62
Mean (x)	46.78%	5655.54	33.97%	7893.91	39.79%	3520.72
S.D.	1.38	2673.54	4.30	3074.27	4.36	684.60
C.V.	0.03	0.47	0.13	0.39	0.11	0.19

Source: Appendix–VII

The equity capitalization rate (K$_e$) of NABIL ranges between 44.68% to 48.37% the average Ke of the bank is 46.78% the amount of debt in capital structure vary over 5 years.

The amount of debt in NIBL has been fluctuating periodically. The CV of the bank is 0.13 which is moderate. The average Ke of the bank is 33.97% that is not met by 2004/05 and 2008/09.

The amount of debt in BOKL has also been fluctuating over the period i.e. Rs. 2878.87, Rs. 2909.75, Rs. 3237.17, 3903.18 and Rs. 4674.62. The average Ke of the bank is varying here.

IN conclusion, the average Ke of NABIL is satisfactory among the selected banks because it has the highest average Ke and the lowest CV. However a change in the amount of long term debt in the capital structure does not affect the value of firms and the overall cost of capital.

4.3   Leverage Analysis

Financial leverage refers to the firm's use of fixed income securities, such as debt and preferred stock and financial risk is the additional risk placed on the common stock holders. "A ratio between the percentage of change on EBT and EBIT is known as financial leverage"[19]. The degree of financial leverage is presented below:

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[19] Dangol R.M. & Prajapati K.P. cit., p. 324

Table No. 11

Degree of Financial Leverage   (in Ratio)

Year Bank	2004/05	2005/06	2006/07	2007/08	2008/09	Mean	S.D.	C.V.
NABIL	1.32	1.40	1.56	1.70	1.78	1.55	0.17	0.1097
NIBL	2.06	1.97	1.95	1.97	2.30	2.05	0.13	0.0634
BOKL	2.06	1.93	1.80	1.72	1.77	1.86	0.12	0.0645

Source: Appendix-V

The DFL of NABIL ranges between 1.32 to 1.78 times. The DFC of the bank is in increasing trend every year with the lowest CV among the sampled banks i.e. 0.1097.

The DFL of NIBL ranges between 1.95 to 2.06 times its average DFL is 2.05 which is the highest among them. The CV is moderate and the trend is in fluctuation.

Then the average DFL of BOKL is 1.86 times. Its trend is in fluctuation with the highest C.V. i.e. 0.0645.

In Conclusion, the NIBL is the best among the sampled banks because it has the highest DFL and highest CV too. It indicates that its EPS is the highest.

4.4. Correlation Coefficient Analysis

Correlation analysis is the statically tools that can be used to describe the degree to which on variable is linearly related to other variable. There are three types of correlation i.e. simple partial and multiple but simple correlation based on Karl Pearson's coefficient is focused here. This analysis fails to reflect upon the cause and effect relationship

between the variable the correlation coefficient is demeted by 'r'. The following table shows the correlation coefficient between different variables of the sampled banks.

4.4.1 Total Debt and Shareholder's Equity

The total debt includes all types of long-term borrowed funds, as fixed deposits current liabilities and provisions. Whereas shareholder's equity includes share capital plus Reserve and surplus in the bank. The correlation between total Debt and shareholder's equity indicates whether there is positive or negative relation. It is presented in the following table.

Table No: 12

Correlation Coefficient between TD and SE

Banks	Correlation-coefficient (r)	Relationship
NABIL	0.9712	Positive
NIBL	0.9869	Positive
BOKL	0.9747	Positive

Source:- Appendix-VIII

The above table reveals that the correlation coefficient between Total debt and shareholder's equity of respective banks is 0.9712, 0.9869 and 0.9747 respectively. The lightest positive correlation is found for NIBL and the lowest for NABIL. The sampled banks are perfectly positively correlated. Both the TD and shareholder's equity   are

proportionately risky and dependent with each other.

4.4.2 Long term debt and Earning per share.

Long term debt the source of long term financing, borrowings or funds. Interest is paid on it annually where as Earning per share is the income of per share of a firm in one fiscal year. the correlation between Ltd. leads to investment in the EPS or not. The correlation coefficient between L.T.D and EPS is calculated in the following table:-

Table No: 13

Correction coefficient between Long term Debt and Earning per Share

Banks	Correlation-coefficient (r)	Relationship
NABIL	-0.2751	Negative
NIBL	-0.0963	Negative
BOKL	0.7831	Positive

Source: Appendix IX

The above formatted table reveals that the correlation coefficient between L.T.D. and EPS of respective commercial banks is -0.2751, -0.0963 and 0.7831 respectively. The Positive correlation is found in BOKL and negative in NIBL and NABIL. the financial risk of BOKL can be reduced due to opposite relationship between Ltd. and EPS. Thus, the variables of BOKL are perfectly dependant each other.

4.4.3 EBIT and Interest

Long term debt holders earn the interest on their debts as returns and EBIT is operating profit of the company. The correlation between EBIT and Interest indicates that whether there positive or negative correlation. It is presented in the following table.

Table No: 14

Correlation Coefficient between EBIT and Interest:

Banks	Correlation-coefficient (r)	Relationship
NABIL	0.9977	Positive
NIBL	0.9942	Positive
BOKL	0.9938	Positive

Source: Appendix: X

The above table reveals that the correction coefficient between EBIT and Interest of respective banks is 0.9977, 0.9942 and 0.9938 respectively. The highest positive correlation is found in NABIL and the Lowest in NIBL and BOKL. The sampled banks are perfectly positively correlated Both the EBIT and interest are proportionately risky and profitable for the banks. Moreover the variables of NABIL have been closely depending each other.

4.4.4 EBIT and DPS

The dividend paid to equity or common shareholders annually on a per-share basis is termed as DPS and

EBIT is operating profit of the company. Here, the correlation coefficient between EBIT and DPS is computed in the following table to indicate that whether there is positive or negative correlation.

Table No: 15

Correlation Coefficient between EBIT and DPS

Banks	Correlation-coefficient (r)	Relationship
NABIL	0.1011	Positive
NIBL	-0.4499	Negative
BOKL	0.9656	Positive

Source: Appendix: XI

The above table reveals that the correlation coefficient between EBIT and DPS of NABIL and BOKL is perfectly positive where as NIBL has the negative correlation. BOKL has been doing better among the sampled banks because its correlation is the highest i.e. 0.9656 and It shows that the DPS of BOKL depends upon EBIT more over the periods.

4.5 Trend Analysis

During the process of analysis, different kinds of tools can be used to know the actual position of a business concern. Out of which trend analysis is one, which reveals the percentage change in several successive years. Trend analysis indicates the pattern of change. In financial analysis the pattern of change over a period is quite significant to know the major activities of the organization. The following trends are calculated for the sampled banks here.

4.5.1 Trend of Net Worth

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Net worth consists of Share capital and reserve & surplus of bank together. The trend of Net worth of NABIL, NIBL and BOKL has been shown below:
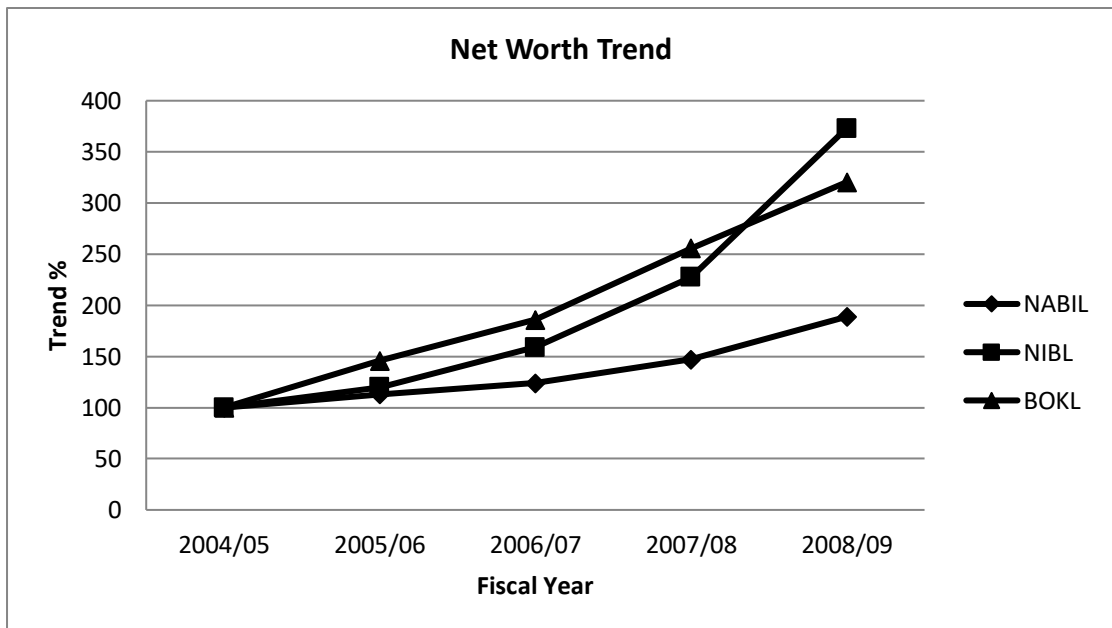
Table No. 16

Net Worth Trend   **(in %)**

Bank	Fiscal Year (A.D)				
	2004/05	2005/06	2006/07	2007/08	2008/09
NABIL	100	113.11	124.10	147.03	188.84
NIBL	100	119.94	159.14	227.66	373.10
BOKL	100	145.97	185.80	255.82	320.45

Source: Appendix – XII

The trend of Net Worth shown in above table is also presented in graphical form as mentioned below.

Figure No. 12

The above table and graph indicate that the net worth trend of NABIL, NIBL and BOKL is in increasing trend. The trend percentage of NABIL lies between 100% to 188.84%. The trend percentage of NIBL lies between 100% to 373.10% and the trend percentage of BOKL lies between 100% to 320.45%. The sampled banks have been able to increase their total net worth successfully over the periods but NIBL has maintained it very well because it has the highest net worth percentage among these sampled banks i.e. 373.10% on 2008/09 A.D.

4.5.2 Trend of Total   Deposits

The total deposits of the banks include current deposits, fixed deposits, call deposits and certificate of deposits. It is the main source of funds collected from bank's depositors invest in profitable sectors. The trend of total deposits of NABIL, NIBL and BOKL has been presented below:

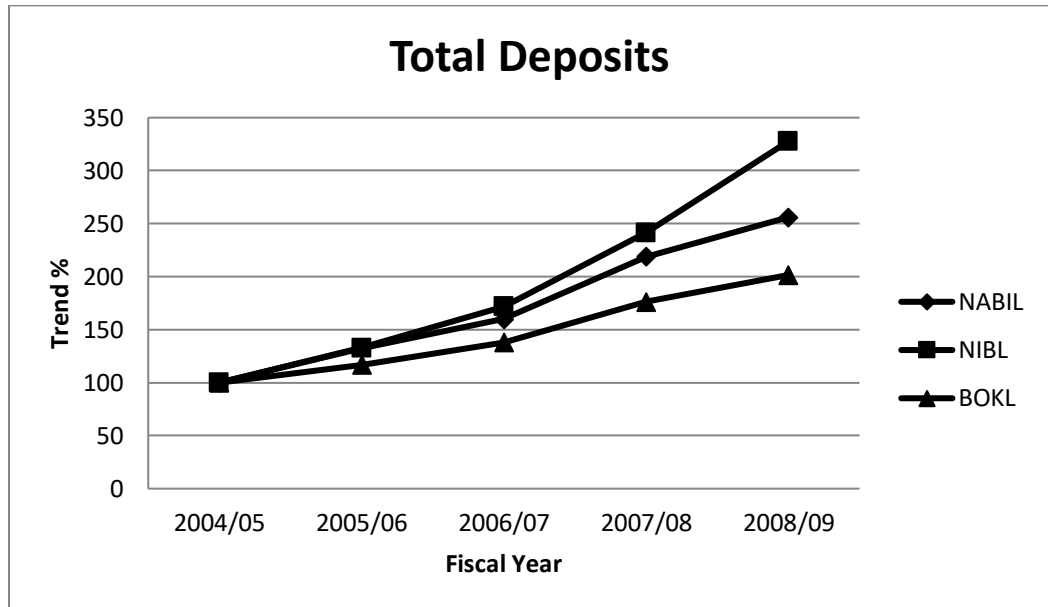Table No. 17

Total Deposits trend   (in %)

Bank	Fiscal Year (A.D)				
	2004/05	2005/06	2006/07	2007/08	2008/09
NABIL	100	132.64	160.03	218.80	256.04
NIBL	100	132.78	171.80	241.69	327.60
BOKL	100	116.82	138.03	176.41	201.48

Source: Appendix − XIII

The trend of Total Deposit shown in above table is also presented in graphical form as mentioned below.

Figure No. 13

The above table and graph reveal that the total deposits trend of NABIL, NIBL and BOKL is in increasing trend every year. The percentage of total deposits of NABIL has increased to 256.04% in 2008/09 by 156.04% the percentage of total deposits of NIBL has increased to 327.60% in 2008/09 by 227.60% and the percentage of total deposits of BOKL has increased to 201.48% in 2008/09 by 101.48% NIBL has comparatively collected the highest deposits among the sampled banks in terms of times.

4.5.3 Trend of total Investment

Total investment includes investment in loan advance, cash credit, Government securities, bills discounted and purchased, money at call and short notice etc. It helps earn returns and maximizes the bank's wealth. The trend of investment of NABIL, NIBL and BOKL has been shown below:
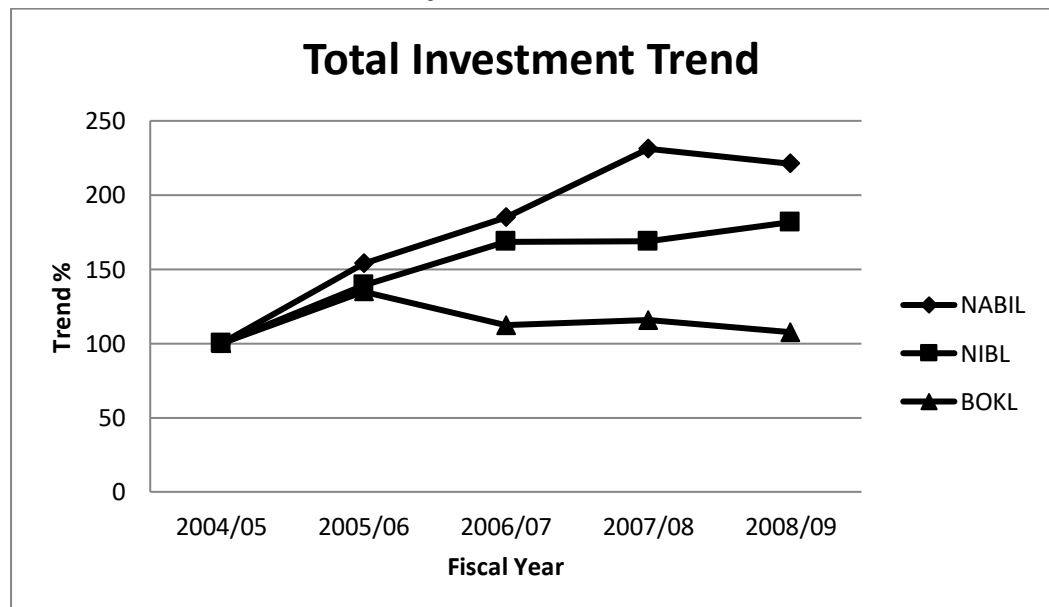
Table No. 18

Total Investment Trend   (in %)

Bank	Fiscal Year (A.D)				
	2004/05	2005/06	2006/07	2007/08	2008/09
NABIL	100	153.84	184.85	231.17	221.22
NIBL	100	139.28	168.59	168.72	181.71
BOKL	100	134.84	112.20	115.74	107.50

Source: Appendix – XIV

The trend of Total Investment shown in above table is also presented in graphical form as mentioned below:

Figure No. 14

The above table and graph show that the total investment trend of sampled banks as better except BOKL. The total investment percentage of NABIL,

NIBL and BOKL is 221.22%, 181.71% and 107.50% respectively in 2008/09 in terms of above trend line, NABIL is successful utilizing its investment over the study period.

4.5.4 Trend of NPAT

Net profit refers that profit which is actually earned by the bank after paying tax to the internal revenue office of government. It helps the banks to attract the depositors and potential investors. The Net profit after tax trend of NABIL, NIBL and BOKL is presented below:
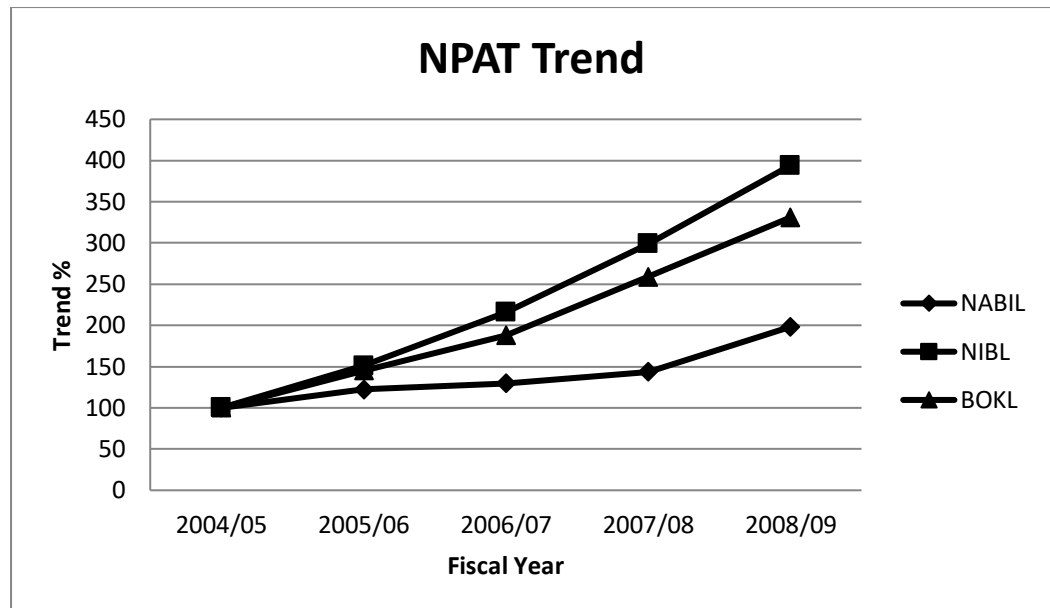
Table No. 19
NPAT Trend   (in %)

Bank	Fiscal Year (A.D)				
	2004/05	2005/06	2006/07	2007/08	2008/09
NABIL	100	122.14	129.58	143.52	198.24
NIBL	100	151	216	298.83	393.96
BOKL	100	145.09	188.05	259.08	330.92

Source: Appendix – XV

The trend of NPAT shown in above table is also presented in graphical form as mentioned below.

Figure No. 15

NPAT Trend

The above table and graph reveal that the NPAT trend of sampled banks is successfully increasing over five periods. NIBL has been earning more profit every year than NABIL and BOKL. In overall, NIBL has utilized its resources and deposits effectively to get much profit in successive years because it has the highest earnings among the sampled banks in terms of percentage.

CHAPTER – 5

SUMMARY, CONCLUSION AND RECOMMENDATION

This study is the research upon the capital structure management of the joint venture banks in Nepal. The study includes three joint venture banks which represents the study of the capital structure of commercial banks in Nepal. The research study covers the period of five years from 2004/05 to 2008/09 A.D. This chapter summarizes the whole study, draws the major findings, conclusions

and forwards the recommendation for the better capital structure management of commercial banks in Nepal. The fourth chapter is the main part of the study, which deals with data presentation and Analysis appropriate tools.

5.1 Summary

In this study, three joint venture Banks have been chosen to analyse about capital structure. These banks are Nabil Bank Limited, Nepal Investment Bank Limited and Bank of Kathmandu Limited. The data analyzed and processed using various financial and statistical tools, summarized form of the analysis section of the study is mentioned below:

5.1.1 Profitability Ratio

i. The average EPS of NABIL, NIBL and BOKL is Rs. 117.43, Rs. 51.46 and Rs. 46.38 respectively. and their CV ratios are 11.16%, 20.40% and 22.27%.

ii. The average DPS of NABIL, NIBL and BOKL is Rs. 96, Rs, 27.56 and Rs. 28.07 respectively and their CV ratios are 24.96%, 70.57% and 46.53%.

iii. The average ROA of NABIL, NIBL and BOKL is 2.54%, 1.68% and 1.83% respectively and their CV ratios are 14.57%, 8.33% and 15.85%.

iv. The average ROE of NABIL, NIBL and BOKL is 32.32%, 24.02% and 24.73% respectively and their concerned CV ratios are 3.59%, 10.41% and 11.61%.

v. The average ROCE of NABIL, NIBL and BOKL is 10.06%, 5.19% and 5.92 respectively and their concerned CV ratios are 25.35%, 83.62% and 20.10%.

5.1.2 Leverage or capital structure Ratios

i. The average ICR of NABIL, NIBL and BOKL is 302.69%, 196.42% and 218.81% respectively and their respective CV ratios are 22.77%, 5.36% and 7.35%.

ii. The average debt-equity ratio of NABIL, NIBL and BOKL is 1194.05%, 1300.89% and 1263.06% respectively and their concerned CV ratios are 14.30%, 7.85% and 8.74%.

iii. The average debt to total capital ratio of NABIL, NIBL and BOKL is 358.25%, 287.57% and 297.28%. respectively and their concerned CV ratios are 9.99%, 8.42% and 7.87%.

iv. The average DFL of NABIL, NIBL and BOKL is 1.55, 2.05 and 1.86 times respectively their concerned CV ratios are 0.1097, 0.0634 and 0.0645.

v. The average overall cost of capital of NABIL, NIBL and BOKL is 5.63%, 4.96% and 5.42% while the average value of Firm is Rs. 29529.52. Rs. 31519.45 and Rs. 14990.98 respectively.

vi. The average equity capitalization rate of NABIL, NIBL and BOKL is 46.78%, 33.97% and 39.79%. White the average L.T.D. is Rs. 5655.54, Rs. 7893.91 and Rs. 3520.72 respectively.

5.1.3 Correlation Coefficient Analysis

i. The correlation coefficient between Total and shareholder's equity of NABIL, NIBL and BOKL is 0.9712, 0.9869 and 0.9747 respectively. There is positive and perfect correlation between total debt and shareholder's equity of three banks.

ii. The correlation coefficient between L.T.D. and EPS of NABIL, NIBL and BOKL is -0.2751, -0.0963 and 0.7831 respectively. Both NABIL and NIBL have perfect negatively correlated and BOKL has positive correlation.

iii. The correlation coefficient between EBIT and Interest of NABIL, NIBL and BOKL is 0.9977, 0.9942 and 0.9938 respectively. All of these banks, have positive and perfect correlation.

iv. The correlation coefficient between EBIT and DPS of NABIL, NIBL and BOKL is 0.1011, -0.4499 and 0.9656 respectively. BOKL has positive and perfect correlation while NABIL has less positive correlation and NIBL has perfectly negative correlation.

5.1.4 Trend Analysis

i.   The trend of Net worth of NABIL, NIBL and BOKL is increasing throughout the study period NIBL has the highest net worth among the sampled banks.

ii.   The trend of total deposits of NABIL, NIBL and BOKL is in increasing trend NIBL has the largest deposits and been able to increase every year.

iii. The trend of total investment of NABIL and BOKL is fluctuating over the periods where the total investment of NIBL has increased to 181.71% in 2008/09.

iv.   The trend of NPAT of NABIL, NIBL and BOKL is increasing throughout the year. Where NIBL has the largest Net profit among sampled banks.

5.2 Conclusion

From the analysis of financial and statistical indicators of all the sampled banks. The researcher has been able to draw certain conclusion that the three commercial banks have different financial performance. Based on the above data analysis, the following conclusion have been made.

i.   Under the Net Income Approach, the interest rate and the cost of equity are dependent hypothesis of capital structure. As Leverage increases, the overall cost of capital declines and the total value of the firm as well as the market price of ordinary shares will increase. From the calculation, NIBL has the optimum capital structure because it has the least average cost of capital and the highest total value of farm among three banks in the study.

ii. Net operating income (NOI) Approach is an independent hypothesis of capital structure. Any changes in financial leverage will not lead to any change in the total value of the firm and market price of shares. From the position of average equity capitalization rate, NABIL has the optimum capital structure compared to NIBL and BOKL because it has the highest equity capitalization rate.

iii. The earning per share explains net income for each share which reveals the market position of the firm. The average EPS of NABIL is the highest and best among the sampled banks.

iv. There is perfect correction between Total debt and shareholder's capital of NABIL, NIBL and BOKL.

Where as it is highly correlated in case of NIBL (0.9869) compared to NABIL (0.9712) and BOKL(0.9747).

v. There is negative correlation between L.T.D. and EPS of NABIL and NIBL. Where as it is positively correlated in case of BOKL (0.7831) which is able to mobilize its long term debt over the study period.

vi. The financial leverage analysis helps to evaluate the financial risk of the firm the average degree of financial leverage of NABIL if the least among the sampled banks. So, it has been able to reduce its financial risk utilizing it debt successfully.

vii. There is positive correlation between EBIT and interest of NABIL, NIBL and BOKL. White NABIL is highly correlated compared to NIBL and BOKL.

viii. Dividend per share is the earning distributed to common shareholders. the analysis shows that NABIL has paid the highest average dividend of Rs. 96 Million which is comparatively better.

ix. Based on the calculation of ICR, NABIL is able to pay it annual interest on debt on time compared NIBL and BOKL because. It has the highest average interest coverage ratio of 302.69%

x. The analysis of debt equity ratio shows that NIBL has used its debt more effectively against the claim of creditors among the sampled banks because it has the highest debt-equity ratio.

5.3 Recommendation

This section includes recommendation which will be helpful in taking prompt and effective decision about capital structure Management. There recommendation is pointed out below:

i. The banks have been using more current liabilities as a source of short-term financing. Certainly over utilization of current liabilities may be adversely impact to the short-term solvency position of the banks.

ii. The banks should be serious about capital structure matter. It is recommended that the theoretical aspects of capital structure management should be maintained accordingly to find out the causes and effects between or among the components of capital structure of the firms.

iii. The banks should consider the betterment of earning per share because it is the indicator from the stakeholders and potential investors as well as makes them more confident on the investment.

iv. From the analysis of financial leverage, the banks are not seen in satisfactory level. Therefore, the bank will have to increase their leverage position.

v. The commercial banks except BOKL have found no definite dividend payment policies. This policy has negative impression in investors. So, these banks are suggested to follow stable or consistency in dividend payment.

vi. The banks are suggested to meet social responsibilities especially, mobilizing the funds in rural areas introduction there areas oriented schemes.

vii. Nepalese investors are investing their funds on commercial banks haphazardly, randomly and without consulting capital market analysis, so, they are advised to analyses political and capital market solution before pouring their funds.

viii. The banks are advised to merge one another and provide broad and reliable banking services to the common people of the country.

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