CAPITAL STRUCTURE MANAGEMENT OF COMMERCIAL BANKS IN NEPAL

(With Reference to Everest Bank Limited, Nepal Investment Bank Limited and Himalayan Bank Limited)

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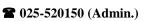
Faculty of Management

TRIBHUVAN UNIVERSITY

In partial fulfillment of the requirement of the degree of
Master of Business Studies (M.B.S.)

Dharan, Nepal

March, 2010





Date:

TRIBHUVAN UNIVERSITY

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| CAPITAL STI | RUCTURE MANAGEMENT OF COMMERCIAL B | BANKS IN NEPAL |
| (With Reference to | Everest Bank Limited, Nepal Investment Bank Limited) | ed and Himalayan Bank |
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| And found the thesis to be the original wor the prescribed format. We recommend the to of the requirements for Master's Degree in | thesis to be accepted as partial fulfillmen |
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DECLARATION

I hereby declare that the work done in thesis entitled CAPITAL STRUCTURE MANAGEMENT OF COMMERCIAL BANKS IN NEPAL (With Reference to Everest Bank Limited, Nepal Investment Bank Limited and Himalayan Bank Limited) and submitted to Mahendra Multiple campus, Dharan under Faculty of Management, Tribhuvan University, is my own created work reported in the form of partial fulfillment of the requirement of Master's of Business studies (M.B.S.) course under the guidance and supervision of respected teacher Mr. Nischal Subedi, lecturer of Mahendra Multiple campus, Dharan.

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ACKNOWLEDGEMENTS

This thesis entitled CAPITAL STRUCTURE MANAGEMENT OF COMMERCIAL BANKS IN NEPAL (With Reference to Everest Bank Limited, Nepal Investment Bank Limited and Himalayan Bank Limited) has been prepared for the partial fulfillment of the requirement of Master's Degree of Business Studies (M.B.S) under the Faculty of Management, Tribhuvan University, is based on research models involving the use of quantitative as well as qualitative aspect of the whole study has been divided into five major chapters viz, Introduction: It lays the general background of the study, Review of **Literatures:** It indicates the gap, points to the necessity and justifies the research work, **Research Methodology:** it outlines the research procedures and its frame, Presentation, Interpretation and Analysis of data: It is the core and inevitable body of the study. All the collected data would be processed, interpreted and analyzed for the foundation of generalization and Summary, Conclusions and **Recommendations:** It summaries all the findings in precise forms and make conclusions and recommendations. I express my sincere gratitude to all the authors and learned personalities, whose writings have been cited in this study. At first I would extend my deep sense of indebtedness to my respected supervisor Mr. Nischal Subedi Lecturer of Mahendra Multiple campus for his precious guidelines, inspiration and suggestion thoroughly during the period of this research. Without his valuable insight, I would not think of accomplishment of this thesis paper.

I want to give thanks for the staff members of T.U. Central Library, Mahendra Multiple campus Library and staffs who provided the reference and reading materials during the period of research. I am also thanking to all my friends namely Tanuja, Rosee and Ram Sampang for their encouragement and company.

I express my gratitude to my parents and all my family members who always inspired and encourage me to complete this journey for the benchmark of my academic qualification. Their valuable encouragement and inspiration has attained me to this height.

MANITA TAMRAKAR

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ABBREVIATION

ANOVA Analysis of Variance

ATM Automatic Teller Machine

CV Coefficient Variation

D/E Ratio Debt Equity Ratio

EAT Earning After Tax

EBT Earning Before Tax

EBL Everest Bank\ Limited

EBIT Earning Before Interest and Tax

FY Financial Year

GDP Gross Domestic Product

HBL Himalayan Bank Limited

ICR Interest Coverage Ratio

MM Modigliani and Miller

NEPSE Nepal Stock Exchange

NIBL Nepal Investment Bank Limited

NPA Non Performing Assets

NRB Nepal Rastra Bank

NOI Net Operating Income

PE Probable Error

ROCE Return on Capital Employed

ROSE Return on Shareholder's Equity

TDTA Total Debt to Total Assets

CHAPTER - I

INTRODUCTION

1.1 Background of the Study

Nepal is one of the countries in the world in terms of rich and unique in natural resources and attributes like it's bio-diversity, socio-cultural, cultural heritage, manifested in its architecture, temples, sculptures, monuments etc. Beside from this, it is also richly gifted with natural resources like world's highest peak Everest, green forests, many perennial rivers and source of minerals. Actually slow pace of developing of Nepal is due to illiteracy, lack, of finance, landlocked position, poor resources mobilization and its utilization, weak infrastructure development, institutional weaknesses, poor economic policy and unstable eco-political environment. For this to overcome, the process of capital accumulation among other prerequisites should be enhanced. The economic development of nation is on initial stage. Nepal has adopted mixed and liberal economic policy with the implicit objective to help the state and the private sector. For the economic growth and development, government has now promulgated various economic policies such as industrial policy, foreign investment policy, privatization policy and trade and transit policy.

Most necessary for development of Nation is Capital. Due to least development country, domestic capital formation is a very difficult task for Nepal. Handicapped by numerous constants, economic development is a challenging task in Nepal. Reduction of wide spread poverty is Nepal's biggest development challenge today.

In such a situation, to all round development of the country, banks could play a key role. To develop and spread industry, to boost the trade and commerce activities, employment and in foreign business, the bank cannot be ignored or rather Bank is the must.

Banking sector plays a vital role in economic development of every country. It provides capital for development of industries, trade and business. Without banking industry, development of a country is impossible. More than it commercial bank which gives relatively more services to their customers in view to facilitating their economic and social life. Hence banking industry influences all the economic activities of every country. Active banking industry can changes the structure of the world.

The commercial bank is simple a business corporation organized for the purpose of maximizing the value of shareholder's wealth invested in the bank at an accepted level of risk. And aggressive pursuit of such an objective requires that an institution be continually on the look out for new opportunities for further revenue growth, greater efficiency, and more effective planning and control. Therefore, banks like other forms in the economy are out to operate at a profit. They are closely regulated and scrutinized than a typical business form.

The banks hold savings of the overall health of the economy; regulators and the public subject them to constant scrutiny. The bank will generate their income in different way. They collect money from savers and lend it to borrowers. They make profit by paying less for savings than what they charges to the borrowers. Banks also generate income by providing other service by which they charges fees and commission, safety deposit, account service others. Meanwhile, banks have also entered into financial advisory services, foreign trading, processing and investments. The success of any organization, which in other words means the organization of the wealth of its shareholders, depends amount other thing on its capital structure. The term capital structure refers to the relationship between the various long terms forms of financing such as debentures, preference share capital and equity share capital. Financing the form asset is a very crucial problem in every business and as a rule; there should be a proper mix of a debt and equity capital in financing the firm assets. Thought the capital structure cannot affect the earnings of

a firm, it greatly affects the earnings of available to equity shareholders. In managing, the capital structure of a firm is an important aspect of corporate financing. The main issue with respect to source of financing is concerned with the nature of relationship between the debt-equity ratio and the market value of the firm.

Capital structure is concern with qualitative aspects. For meeting requirements, companies usually issues three types of securities such as debenture, equity shares and preference shares. A decision about the proportion among these types of securities refers to the capital structure in a broad sense so as to include even the proposition of short-term debt. In fact, they refers capital structure, as financial structure management of commercial bank is the key factor for short term to intermediate term decision making in today's dynamic and volatile banking environment. Broadly, defined capital and assets structure management includes all policies and approaches designed to obtain funds from deposits and investments. In order to run and manage a company, funds are needed. Right form the promotional stage, management has to concentrate on raising funds and on continual basis.

If fund are inadequate and are not properly managed, the entire organization suffers. It is therefore necessary that correct estimate of the current and made to have an optimum capital structure, which shall help the organization to works smoothly and without any stress.

Development factor of a country is mobilization of domestic resource and the investment for productive use to the various sectors, To make it more effective commercial bank formulates sound capital structure management policies that eventually contribute to the economic growth of a country Integrated and speedy development of the country is possible only when competitive banking services reach every nooks and corners of the country.

Banks aims to increase the value of the firm and wealth of shareholders. The term capital structure refers to the relationship among the various long term financing such as debenture, Preference share capital and equity share capital. Financing is crucial problem in any business. As a general rule there should be a proper mix of debt and equity capital in financing. Though the capital structure does not affect the total earning of the firm, it generally affects the earning available to equity shareholders. In managing the capital structure the financial manager's goal is to maximize the value of shareholders wealth. The analysis of capital structure of a firm is an important aspect of corporate financing. The main source of financing is concerned on the nature of relationship between the debt equity ratio and the market value of the firm. Right from the promotional stage, management has to concentrate on raising funds and on continual basis. If funds are inadequate and are not properly managed the entire organization suffers it. Therefore it is necessary to manage an optimal capital structure to prepare correct estimate of the present and future need of capital .Moreover it helps to run the organization successfully.

1.1.1 Meaning of Commercial Bank:

Simply, a commercial bank is known as organized corporate business house that receives and holds deposits or fund from other and makes loans or extends credit and transfer funds by written orders of depositors or customer. A bank is an institution for keeping, lending and exchanging etc money. Generally Bank is known as Central bank, Commercial bank, Development bank, Exchange bank, Saving bank, Cooperative bank, Merchant bank, Housing bank, Equipment bank, Infrastructure bank and Mutual fund. As a whole Bank refers to Commercial Bank at present. A bank is a major player among of financial institutions. A bank involves in a process of collecting scattered money and to help its mobilization in different sectors according to need of customers. Bank helps to develop saving habit of people, which in-turns help to make other people to invest for their business. Banking loan helps to invest in industrial sector, commercial sector, production sector, trade & commerce

and agriculture sector as well. Bank also helps to develop international business by initiating as a mediator to exporter & importer. This way banks help to strengthen the national development.

A commercial bank refers to such a type of bank which primarily established to perform the functions of accepting deposits and providing loans to customers. Deposits accepted by commercial banks are in the form of saving, current and fixed deposits. Advancing credit in the form of short term credit as well as long-term credit. Bank also perform other subsidiary function like safety vault, bank overdraft, documentary credit, traveler's cheques, payment of bills, purchase of government bond and security, make guarantee hire purchasing, issue of draft and letter of credit(L.C), exchange of foreign currency, home banking etc. They also render or provide innumerable number of subsidiary services.

Banking plays significant role in the economic development of a country. Commercial banks are those financial institutions mainly dealing with activities of the trade, commerce, industry and agriculture that seek regular financial and other helps from them for growing and flourishing. The objectives of commercial banks are to mobilize idle resources into the most profitable sector after collecting them from scattered sources. Bank accepts deposits from the public, which are repayable on demand or on short notice. They cannot afford to invest their funds in long-term securities or loans. They provide the working capital required by trade and industry in their day-to-day transactions. They grant loans in the form of cash, credits and overdrafts. They need to keep appropriate liquidity so that they can provide cash at the same time if needed.

The source of finance is most essential element for the establishment and operation of financial institute. Profit oriented institutions usually obtain these sources through ownership capital, public capital through issue of shares and debentures, borrowing through banking institution as credit or loan. Now days, the essential

sources of the organization for financial supporting is the credit, overdrafts and others provided by banking institution. Now a day inter banking loan is maim source of every bank and financial institution. Its helps to fulfill short term demand of cash any bank must maintain adequate cash and bank balance to meet its day-to-day management of cash resources for remote contingencies. All the commercial banks are operates under rules, regulations and direct supervision of Central Bank.

The bank is an indispensable part for the upliftmen of a country. The financial institution is a vast field comprising of banks, financial companies, insurance companies, co-operatives, stock exchange & foreign exchange markets, mutual fund, etc. These institutions collect idle and scattered money from the general public and finally invest in different enterprises that consequently help in reducing poverty, increase in life style of people, increase employment opportunities, and thereby developing society and the country as a whole. Thus, today the financial institutions have become the base for measuring the level of economic development of a country. Banking industry has acquired a key position in mobilizing resources for finance and social economic development of a country. Bank assists both the flow of goods and services from the producers to the consumer and the financial activities of the government. Commercial banks have been contributing a lot towards the promotion and expansion of both export and import trade. They provide both preshipment and post shipment finance to exporters.

Nowadays banking field is being very tough competition. So every bank launches veriety of services and new technology. They start their operation with automated system, which could easily attract the elite group of business community due to their prompt served modern management. In this way banks are successful to bring healthy competition among banks, increase in foreign investment, promote and expand export-import trade, introduce new techniques and technologies. In recent times, many commercial banks are providing consumer-financing facilities also. They provide direct housing loan, home equity loan, vehicle loan, education loan,

loan for household appliances hire purchase etc. in this way the bank provide advance technology and quick service to cope and sustain competitive global banking environment.

1.2 Brief Profile of Sample Banks

A. Everest Bank Limited

Everest Bank Limited (EBL) started its operation in 1994 with a view and objectives of extending professionalized and efficient banking services to various segments of the society. The bank is providing customer friendly services through a network of 32 branches. Punjab National Bank (PNB) is the joint venture partner (holding 20% equity in the bank). The bank has been conferred with "Bank of the Year 2006, Nepal" by the banker, a publication of financial times, London. The bank was bestowed with the "NICCI Excellence award" by Nepal India chamber of commerce for its spectacular performance under finance sector.

Recognizing the value of offerings a complete range of services, they have pioneered in extending various customer friendly products such as Home Loan, Education Loan, EBL Flexi Loan, EBL Property Plus (Future Lease Rental), Home Equity Loan, Vehicle Loan, Loan Against Share, Loan Against Life Insurance Policy and Loan for Professionals. EBL was one of the first banks to introduce Any Branch Banking System (ABBS) in Nepal. EBL has introduced Mobile Vehicle Banking system to serve the segment deprived of proper banking facilities through its Birtamod Branch, which is the first of its kind. The banks performance under all parameters has been outstanding during the fiscal year 2064-65 after providing for income tax and statutory provisions there was a disposal net profit of Rs. 45 crore compared to Rs. 35 crore last year- an increase of 28.57 %. The bank was able to increase its operating profit by 31.9%, deposit by more than 38% and advances by 39% during the year compared to the corresponding period last year. During the last financial year, the Bank opened the 5 branches namely Golfutar, Kritipur, Bhaktapur, Surkhet & Lagankhel. At Present, EBL has Thirty Two Branches that spread out the nation.

Everest Bank is first private commercial bank having largest network. Assets quality has improved by reduction of Non Performing Asset (NPA) to 0.0.65% from 1.27% in the previous year. This is one of the lowest NPA among the commercial bank in Nepal. Against the Paid-Up Capital by shareholders of Rs. 37.80 crore, the shareholders' funds now amount to Rs. 119.87 crore – with Core Capital base of Rs. 81.67 crore. Earnings per Share have surged to Rs 62.78 from Rs 54.22. The local Nepalese Promoters hold 50% stake in the Banks equity, while 20% of equity is contributed by joint venture partner PNB whereas remaining 30% is held by the public. (www.Everestbank.com)

Table: 1.1
Capital Structure of Everest Bank Limited

| Capital as at 2007/08 | Amount in Rs. '000' |
|-----------------------|---------------------|
| Authorized Capital | 20,00,000 |
| Issued Capital | 830466 |
| Paid up Capital | 830466 |

B. Nepal Investment Bank Limited (NIB)

Nepal Investment Bank Ltd. (NIB), previously known as Nepal Indosuez Bank Ltd.) Was established in 1986 as a joint venture between Nepalese and French partners. The French partner (holding 50% of the capital of NIB) was credit Agricole Indosuez, a subsidiary of one largest banking group in the world.

With the decision of credit Agricole Indosuez to divest, a group of companies comprising of bankers, professionals, industrialists and businessmen has acquired on April 2002 the 50% shareholding of credit Agricole Indosuez in Nepal Indosuez Bank Ltd. The name of the bank has been changed to Nepal Investment Bank Ltd. upon approval of bank's Annual General Meeting, Nepal Rastra Bank and Company Registrar's office with the following shareholding structure. Rastriya Banijya Bank

holds 15%, Rastriya Beema Sansthan holds 15%, General Public holds 20%, and the Nepalese promoters hold 50%.

NIB, which is managed by a team of experienced bankers and professionals having proven track record, can offer you what you're looking for. Besides commercial banking services, the bank also offers industrial and merchant banking services. The bank has six branches in Kathmandu Valley at the following locations: Putalisadak, New Road, Pulchowk (Lalitpur), Thamel, Kalimati, and Seepadol (Bhaktapur). In addition, the bank also has eleven other branches outside Kathmandu Valley in Banepa, Narayangarh, Birgunj, Janakpur, Jeetpur, Bhairawa, Biratnagar, Pokhara, Nepaljung, Butwal and Birtamod. Bank will be aggressively opening new branches at different parts of the Kingdom to serve its customers better. Recently bank has opened its new branch outside the valley in the Birtamod. Investment Bank Limited has always been committed to providing a quality service to its valued customers, being truly a Nepali Bank. All customers are treated with utmost courtesy as valued clients. The bank, wherever possible, offers tailor made facilities to its clients, based on the unique needs and requirements of different clients. To further extend the reliable and efficient services to its valued customers. Investment Bank Limited has adopted the latest banking technology. This has not only helped the bank to constantly improve its service level but has also prepared the bank for future adaptation to new technology. The Bank already offers unique services such as the pre-paid mobile recharging system through its ATM, SMS Banking and Internet Banking to customers and will be introducing more services like these in the near future. Recently it has brought a new scheme that every one can open its own saving Account in Re. 1.00. (www.nibl.com)

Table No 1.2
Capital Structure of Investment Bank Limited

| Capital as at 2007/8 | Amount in Rs. '000' |
|----------------------|---------------------|
| Authorized Capital | 3,000,000 |

| Issued Capital | 24070689 |
|-----------------|----------|
| Paid up Capital | 24070689 |

C. Himalayan Bank Ltd. (HBL)

Himalayan Bank was established in 1993 in joint venture with Habib Bank Limited of Pakistan. Despite the cut-throat competition in the Nepalese Banking sector, Himalayan Bank has been able to maintain a lead in the primary banking activities-Loans and Deposits. Legacy of Himalayan lives on in an institution that's known throughout Nepal for its innovative approaches to merchandising and customer service. Products such as Premium Savings Account, HBL Proprietary Card and Millionaire Deposit Scheme besides services such as ATMs and Tele-banking were first introduced by HBL. Other financial institutions in the country have been following our lead by introducing similar products and services. Therefore, HBL stand for the innovations that they bring about in this country to help their Customers besides modernizing the banking sector. With the highest deposit base and loan portfolio amongst private sector banks and extending guarantees to correspondent banks covering exposure of other local banks under their credit standing with foreign correspondent banks, HBL believe they obviously lead the banking sector of Nepal.

The most recent rating of HBL by Bankers' Almanac as country's number 1 Bank easily confirms our claim. All Branches of HBL are integrated into Globus (developed by Temenos), the single Banking software where the Bank has made substantial investments. This has helped the Bank provide services like 'Any Branch Banking Facility', Internet Banking and SMS Banking. Living up to the expectations and aspirations of the Customers and other stakeholders of being innovative, HBL very recently introduced several new products and services. Millionaire Deposit Scheme, Small Business Enterprises Loan, Pre-paid Visa Card, International Travel Quota Credit Card, Consumer Finance through Credit Card and online TOEFL, SAT, IELTS, etc. fee payment facility are some of the products and services. Looking at the number of Nepalese workers abroad and their need for formal money transfer channel; HBL has developed exclusive and proprietary online money transfer software- HimalRemitTM. By deputing our own staff with technical tie-ups with

local exchange houses and banks, in the Middle East and Gulf region, HBL is the biggest inward remittance handling Bank in Nepal. All this only reflects that HBL has an outside-in rather than inside-out approach where Customers' needs and wants stand first.

HBL is not only a Bank, It is committed Corporate Citizen also. Corporate Social Responsibility (CSR) holds one of the very important aspects of HBL. Being one of the corporate citizens of the country, HBL has always promoted social activities. Many activities that do a common good to the society have been undertaken by HBL in the past and this happens as HBL on an ongoing basis. Significant portion of the sponsorship budget of the Bank is committed towards activities that assist the society as large.

The Bank's mission is to become preferred provider of quality financial services in the country. There are two components in the mission of the Bank; Preferred Provider and Quality Financial Services; therefore we at HBL believe that the mission will be accomplished only by satisfying these two important components with the Customer at focus. The Bank always strives positioning itself in the hearts and minds of the customers. (www.himalayanbank.com)

Table No 1.3
Capital Structure of Himalayan Bank Limited

| Capital as at 2007/08 | Amount in Rs. '000' |
|-----------------------|---------------------|
| Authorized Capital | 2,000,000 |
| Issued Capital | 1216215 |
| Paid up Capital | 1246215 |

1.3. Statement of the Problems

Nepalese commercial banks lack of appropriate well managed and formulated policies to develop capital structure and assets structure management. They have main relay upon the guideline instruction of NRB? There is lack of clear view towards sound financial performance and evaluation of commercial banks?

The financial sector has not been enough from them to meet the growing recourse need to the economy as expected. Why is so and what is the problem? To answer the question an analysis of their present capital structure is necessary.

So focuses of the present study is on the capital structure of commercial banks. Efficient capital structure is the major tools to measure the strength and the weakness of the bank. Strong commercial banks contribute to national economy and also attract further investment in this sector. Finally it adds to the GDP of Nepal. So mainly this study seeks to analyze and evaluating the financial performance of the commercial bank. By analyzing error of banks, banks have been able to raise their profitability, how far they invest, how efficiently they are managing their liquidity, assets and capital structure how efficiently they use their capital and this research aims to find out proper ways that help to make proper decision.

Capital Structure is a vital sector that should be given top most priority while consider the improvement of business. The study focus to the existing capital structure management of some commercial banks of Nepal. In Nepalese context it has been observed that one of the reasons behind the loss in many organizations is not with the mobilization of capital but the actual problem lies in good capital management. So it is essential to evaluate the management of capital structure in terms of different financial ratios.

As an under developed country like Nepal, there are many commercial banks are operating. There is no doubt that they need to seek for long term profits earning and be transparent in their strategy ,policy and management so as to contribute management so as to contribute more on country GDP

The research attempts to have the answer of the following questions.

- 1. What is the position of sample commercial banks on capital structure and fund mobilization?
- 2. How are the commercial Banks managing their financial needs?

- 3. Are the sample commercial banks having optimal capital structure?
- 4. Are the sample commercial banks maintaining sufficient liquidity position?
- 5. Are the bank's capital mobilization and investment pattern more effective and efficient?
- 6. What is the relationship between investment, loan & advances, total deposits and total net profit?

1.4. Objectives of the Study

The economic development of any country depends upon the effective mobilization of the capital. The study of capital structure helps to maintain and improve or create the perfect situation. The main objective of the study is to analysis the capital structure position of the three commercial banks. The specific objectives are as follows.

- 1. To analyze the capital structure position of the sample banks in terms of debt and equity position, profitability position and asset management position of sample commercial banks
- 2. To analyze the significant of debt equity and net profit of sample commercial banks
- 3. To measure the relationship between Total debt to total assets, interest coverage, Debt to equity and total assets of sample commercial banks.
- 4. To analysis the trend of deposit and net profit of sample commercial banks.
- 5. To offer suitable suggestions based on findings of this study of sample Banks.

1.5. Significance of the Study

Resource mobilization and economic development of a nation, banking institutions definitely contribute and play a vital role to build up the confidence to businessman for promoting the businessman and industrialists for encouraging opening new industries. It is a resource for economic development. It maintains economic confidence of various segments and extents credit to people. It has definitely notable contribution to create good capital and assets structure of commercial banks. It will

be beneficial to different parties concerned with commercial banks as well as others interested parties. Since capital structure is essential indicators of company financial decision making, it is too large extent a determinants of company's profitability. Thus the analysis of selected company capital structure through this study will lead to shed light on their financial performance. This will give an overview of status of banks in Nepal and the linkage between successful operation and capital structure. In additional to this the study will help provide a glimpse of banks in Nepal and their historical trend .As capital structure is a major financial decision in any business. This research will help out the general trend of capital structure of banking sector in Nepal Basically, it's importance can be highlighted to the following:

- 1. The study will be helpful to shareholders regarding the capital structure of their banks; the comparison will help them to identify the productivity of their funds.
- 2. The study will be helpful to lender and owner to indicate and follow the appropriate mix of debt and owners equity in the firm where as profitability analysis would help to indicate the condition of earning.
- 3. The study will be helpful to management of respective to go deep into the matter as why their performance is better than of competitors.
- 4. The customer stock exchange and stock traders as well as government are interested in the capital structure of the banks. By those customers can have clear view to which bank they can entrust. Stock exchange and stock traders can observe the relative appeal of the stock of bank. Similarly government will be desirous to know which bank is able to contribute to the government's exchequer in the form of tax.

1.6. Limitations of the Study

As every study has its own limitations, so as this study is not away from these limitations. Basically the study has been conducted as partial fulfillment of the requirements of the "Master of Business Studies" and capital structure analysis shows the overall capital structure of the firm. This is the part of financial analysis; it

shows the overall cost of capital, value of the firm and the EPS. Capital structure analysis does not consider to others aspects of financial analysis such as dividend policy analysis, short term financing and capital budgeting and risk and return analysis.

Besides from time constraint the following factors are the main limitations of the study:

- 1. This study is based on secondary data and accuracy depends upon the data collected and provided by the organization.
- 2. The whole study is based on the data of 5 years period (i.e. from F.Y. 2004 to 2008).
- 3. This study has been only of three joint venture banks as sample i.e. EBL, NIBL and HBL Non availability of the various references of sources acts as constraints for the study.
- 4. The whole study is based on secondary data collected from the published annual reports of the bank and securities board of Nepal and web site of concerned banks.

1.7 Organization of the Study:

The present study is organized in such way that the stated objectives can easily be fulfilled. The structure of the study will try to analyze the study in a systematic way. The study report has presented the systematic presentation and finding of the study. The study report is designed in five chapters which are as follows:

Chapter - I: Introduction

This chapter describes the basic concept and background of the study, profile of Bank, focus of the study, statement of the problems, objectives of the study, significance of the study and limitations of the study.

Chapter - II: Review of Literature

The second chapter of the study is related to review of related studies. This chapter includes conceptual review, review of related study, different thesis, and review of journals, articles and research studies published by various authors.

Chapter - III: Research Methodology

This third chapter is related to research methodology. Research methodology studying a problem with certain objectives in view. It describes various source of data related with the study and various tools techniques such as statistical and financial employed for presenting the data. This chapter includes research design, source of data, population and sample, data collection methods and analysis and research of data.

Chapter - IV: Presentation and Analysis of Data

This chapter is the main part of the research. This chapter analyses the data related with study and presents the finding of the study. Data processing, data analysis and interpretation are given in this chapter.

Chapter - V: Summary, Conclusions and Recommendations

The last chapter contains the summary, conclusions and recommendations of the study. It also gives important suggestions to the concerned organization for the better improvement.

Bibliography and appendices are also included at the end of the chapter

CHAPTER - II

REVIEW OF LITERATURE

Review of literature means reviewing research studies or other relevant proposition in the related area of the study so that all the past and previous studies, their conclusions and perspective of deficiency may be known and further researcher can be conducted or done. It is an integral mandatory process in researcher's works. It is a crucial part of all dissertations. In other words it's just like fact are finding based on sound theoretical framework oriented towards discovery of relationship guided by experience, and empirical investigation. It helps to find out already discovered things. Review of relevant literature implies putting new spectacle in old eyes to think in new way by posting the problem with new data and information to see that what results are derived. The focus of the review is portfolio management of commercial bank. The primary purpose of literature is to learn and it helps researcher to find out what research studies have been conducted in one's chosen field of study, and what remains to be done. For review study, the researcher uses different books and journals, reviews and abstracts, indexes, reports, and dissertation or research studies published by various institutions, encyclopedia etc.

The review of literature in dividing two headings:

- Conceptual Review
- Review of related Studies

2.1 Conceptual Framework

Underlying principles and international practices are found in different books. Entire book is the collection of principles and practices in different circumstances and contexts. For better understanding, these principles and practices are dealt under different headings.

2.1.1 Concept of Capital Structure

"Capital structure is composed of two words capital and structure. Capital is defined as the produced wealth used productivity for gain. It is thus distinguished from land and other natural resources, which are not, produced from consumer's goods, which are, not used productivity for gain. The economists' conception of capital is unlike the conceptions which governs the practice of the accounts" (Hampton, 1974:42).

"Financial structure refers to the way the firm's assets are financed. It is represented by the entire right-hand side of the balance sheet that includes short-term debt, long-term debt as well as shareholder's equity. Capital structure or the capitalization of the firm is the permanent financing a part of financial structure represented by long-term debt, preferred stocks and shareholder's equity" (Weston & Copeland, 1989: 565).

There is different way to see the capital structure, some financial synonyms of financial structure and capitalization and some presents in a different way from financial structure and capitalization. In capital structure, common share capital, preference share capital, debenture, and long-term debt and also short-term debt included. Thus financial structure is board in looking as compared to capital structure. Similarly, there are some differences between capital structure and capitalization denotes to total value of long-term capital and capitalization

Every firm must deal with the various choices available to management for funding the investment and operations of the business over the long-term. Financing section of business includes the operating profit, which normally is a key source of funds available internally for a company.

Helfert (1997) has stated in this context two key areas of strategy and trade-off decisions that are identified as:

- □ the disposition of profit,
- shaping of the company's capital structure

As the choices are crucial to the firm's long-term viability, this set of decisions is made at the highest level of management and endorsed by the board of directors. The first area, disposition of profits, undergoes a basic three-way split of after-tax operating profit among: owners, lenders, and retention for reinvestment in the business. Here, the critical trade-off choice is the relative amount of dividends to be paid out versus the alternative of retaining these funds to invest in the company's growth. Payment of interest to lenders is a matter of contractual obligation. The level of interest payments incurred relative to operating profit, however, is a direct function of management policies and actions regarding the use of debt.

The second area, the planning of capital structure proportions, involves selecting and balancing the relative proportion of funds obtained over time from ownership sources and long-term debt obligation. The chosen combination is intended to support an acceptable level of overall profitability of the business. In this context business risk and debt service requirements should be taken into account. At the same time it should match the degree of risk exposure deemed appropriate by management and the board of directors.

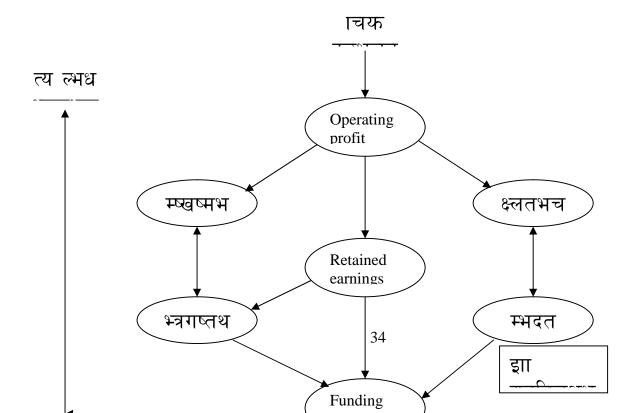
As per the Weston & Brigham (1981) "Capital structure is the permanent financing of the firm, primarily represented by long-term debt, preferred stock, and common equity, but excluding all short term credit." Thus, a firm's capital structure decision has a ling-term impact on overall handling of the firm.

The key concept in choosing funding methods that deciding capital structure is the impact of financial leverage. Helfert (1997) as "the prudent use of funds obtained from fixed-cost debt obligations for financing opportunities that promise potential earnings higher than the interest cost on the borrowed funds – the difference benefiting the owners of the company." This process further requires a series of economic trade-offs, which include weighing the rewards versus the risks involved in the different alternatives open to management.

2.1.2 Capital Structure Components

The components of capital structure of any firm can be broadly categorized into two types of funds: debt and equity. Numerous types of equity, ranging from straight common equity to convertible shares and preferred stocks, can be used for new ownership funding while, conversely, existing ownership funds can also be returned through repurchase of the company's shares in the open market. The later has become an important aspect of capital structure management, for repurchasing stock with corporate cash flow reduces the number of shares outstanding, making each remaining share proportionately more valuable. At the same time, no dividends need to be paid on the purchased shares. The trade-off is between adding value through new investment and adding value through reduced ownership claims. The choice of debt instruments is also varied. These also include leases and similar longterm obligations, which are called off-balance sheet debt because they are not, listed on the balance sheet and only impact the operation statement as annual expenses. Proper capital structure decision needs close insight of each of its components. The following figure serves for better understanding of the components and their effect in any business system (Helfert, 1997:13).

Figure 2.1
The Business System: Financing Segment



(Source: Helfert, "A Modern Approach" 9th Edition, 1997)

The Figure 2.1 shows different components of financing segment of any business system. Funding potential for any investment project is developed with the incorporation of equity and debt. Issue of new shares is reinforced by retained earnings. Similarly, amount of debt is supported by off-balance sheet debts like leases. The operation profits is allocated to lenders as interest on debts – given out to shareholders as dividend – and retained in the firms as retained earnings for further reinvestment.

2.1.3 Optimal Capital Structure

The capital structure concept has an important place in the theory of financial management. An appropriate capital structure is a critical decision for any business organization. The decision is important not only because of the need to maximize returns to various organizational constituencies, but also because of the impact such a decision has on an organization's ability to deal with its competitive environment. The prevailing argument, originally developed by Modigliani and Miller (1958), is that an optimal capital structure exists which balances the risk of bankruptcy with the tax savings of debt. Once established, this capital structure should provide greater returns to stockholders than they would receive from an all-equity firm. This financing decision of a firm relates to choice of proportion of debt and equity to finance the investment requirement. A proper balance between debt and equity is necessary to ensure a trade-off between risk and return to the shareholders. Sound capital structure of debt and equity is called optimal capital structure.

The optimum capital structure differs from firm to firm due to the position of different variables differently. There are different approaches regarding optimum capital structure. The optimal capital structure, according to one approach, is one that maximizes the rate of return of shareholders (i.e. earning per share). According to another approach (Pandey, 1995), the capital structure, which maximizes the market value of the firm or minimizes the overall cost of capital of the firm, is optimum.

Weston & Brigham (1981) are determined to the fact that whenever the return on assets fairly exceeds the cost of debt, leverage is favorable. And the probable return on equity is raised using it. However, leverage is a two-edged sword, and if the returns on assets are less than the cost of debt, then leverage reduces the return on equity. The more leverage a firm employs, the grater this reduction becomes. As a result, leverage may be used to boost stockholder returns, but it is used at the risk of

increasing losses if the firm's economic fortunes decline. Thus gains and losses are magnified by leverage. The higher the leverage employed by a fir, the greater will be the volatility of its return.

Arch and Kaye (1996) conclude that the optimal capital structure for an actual firm has never been specified, not has the precise cost of capital for any given capital structure. This should not be a surprise as decisions concerning the firm's capital structure are a matter of judgment by the management.

On the other hand Van Horne, (1998) Modigliani and Miller's position assuming perfect capital market and absence of corporate taxes is based in the nation that there is a conservation of investment value. No matter how the pie is divided between debt and equity claims, the size of the pie or investment value of the firm remains unchanged. Therefore, leverage is said to be irrelevant and there is no optimal capital structure

.

Helfert (1997) states; the higher the proportion of debt in the capital structure, the greater the demand will be for profit dollars to be used as interest expenses, and the greater the firm's risk exposure will be. That means its potential inability to meet interest obligation and\or repayment during a downturn. The key trade-off, in this regard, is one of risk versus reward. Introducing leverage into a capital structure will tend to lower the overall cost of capital because of the lest-cost nature of debt. Many studies have shown that, as a general rule, the cost will tend to be lowest at debt proportions of around one-third versus two-third of equity in various forms. But specific risk characteristics of the particular company and its industry certainly affect this general result.

Helfert further clarifies: the overall cost of capital generally moves in a relatively narrow band between the extremes of leverage conditions, usually on more than

two percentage points. This is due in part to the tax-deductibility of interest, which moderates the impact of higher rates as leverage increases. But, the cost involved in financing is one of many other considerations entering the complex trade-offs in capital structure planning. The magic of capital structure decision remains on the tax-deductibility of interest on debt. Even when interest rate is higher than the return on equity, the effective rate of interest (multiplied by a factor one minus tax rate) will be less due to the pretax deduction of interest.

"If we can determine the size of EBIT that makes no difference between the EPS under debt financing and the EPS under equity financing, it can be used as a cut-off level for limiting equity and debt financing." The capital structure that can make EBIT equal to the cut-off level can be termed as optimal capital structure. (Pradhan, 992:58).

Cash dividends paid to stockholders – even though these payments for the use of equity capital certainly can be viewed as substantially the same as interest payments for the use of debt capital – are not deductible to determine taxable income. This basic distinction has a significant impact on the amount of operating profit that has to be earned to cover company's cost of capital. (Limbu, 2008:46)

To sum up, the optimal capital structure should reflect the interest of the shareholders as well as creditors. It should be able to take in to account even the capital market behaviors. The optimum level depends on the risk preference of the management as well. The capital structure decision, hence, is one of the major and crucial financial decisions taken by any business firm.

2.1.4 Capital Structure Approaches

About the effect of capital structure decision on value of firm, Van Horne (1998) describes that a great deal of controversy has developed over whether the capital

structure of a firm, as determined by its financing decision, affects its overall value. Traditionalists argue that the firm can lower its cost of capital and increase market value per share by the judicious use of leverage. Modigliani and Miller (MM), on the other hand, argue that in the absence of taxes and other market imperfections, the total value of the firm and its cost of capital are independent of capital structure. In this context, David Durand (1952) categorized three major capital structure approaches, which are discussed below in brief. Moreover, contemporary optimal capital structure theory developed by the continuous improvement and discussion on original MM hypothesis is also dealt.

2.1.4.1 Net income (NI) approach

According to this approach, the cost of debt and cost of equity are assumed to be independent to the capital structure of the firm. This approach states that the value of the firm can be increased by the reduction of cost of capital resulted by application of low cost debt fund in the capital structure. This approach is based upon the following assumptions.

- The use of debt does not change the risk perception of investors.
- The debt-capitalization rate is less than the equity-capitalization rate.
- The corporate income taxes do not exit.

The first assumption implies that, K_d and K_e are constant. The second assumption indicates that the increased use of debt magnifies the shareholders' earnings. As there is no corporate tax, increased value of the equity ultimately increases the value of the firm. Hence, capital structure decision deserves the capacity of impacting on cost of capital, which further impacts on shareholders' value and value of the firm. Symbolically,

$$K_{O} \times \frac{NOI}{V}$$
 $fEq. 2.1A$

Or.

 $C_{\overline{q}} \cdot C_{\overline{q}} = C_{\overline{q}}$

Where.

 K_o = Cost of capital of the firm

K_e = Cost of equity

 K_d = Cost of debt

S = Shareholders' Equity

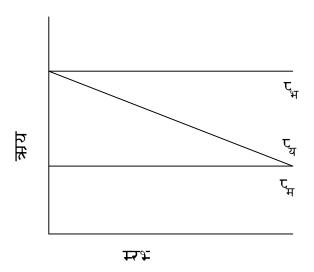
D = Debt

V = Value of the firm

NOI = Net operating income

As per the assumption of NI approach, K_o will decrease as D/V increases or viceversa. This implies that if firm does not employ debt, the overall cost of capital becomes K_e . Similarly, if D/V approaches 1, equals to K_d .

Figure 2.2
Net Income Approach (Leverage-cost)



(Source: I.M. Pandey, Financial Management, 7th Revised Edition, 1995)

The relationship between debt-equity ratio and cost of funds as advocated by this approach has been presented in Figure 2.2. Because cost of debt is less than cost of equity, debt fund can be used to reduce the cost of capital of the firm. As firm's capital structure has no significance on risk preference, the higher the debt the firm employs the lower cost of capital and the higher the value of the firm will be.

2.1.4.2 Net Operating income (NOI) Approach

This theory as suggested by Durand is another extreme of the effect of leverage on the value of the firm. It is diametrically opposite to the net income approach. According to this approach, change in the capital structure of a company does not affect the market value of the firm and the overall cost of capital remains constant irrespective of the method of financing. It implies that the overall cost of capital remains the same whether the debt-equity mix is 50:50 or 30:70 or 0:100. Thus,

there is nothing as an optimal capital structure and every capital structure is the optimum capital structure. This theory presumes that:

- I. The market capitalizes the value of the firm as a whole;
- II. The business risk remains constant at every level of debt equity mix;
- III. There are no corporate taxes.

The value of the firm on the basis of NOI approach can be determined as bellow:

$$V \times \frac{NOI}{K_o}$$

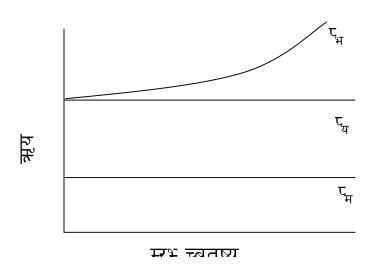
Where,

V = Value of the firm

NOI = Net operating income

 K_0 = Overall cost of capital

Figure 2.3
Net Operating Income Approach (Leverage-cost)



(Source: Pandey, Financial Management, 7th Revised Edition, 1995)

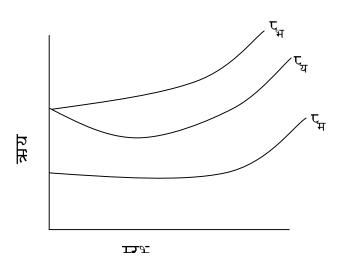
This approach says that the cost of equity increase with debt level, and the higher cost of equity offset the benefits of cheaper debt financing, resulting no effect at all

on K_0 . Due to this relationship this approach is also known as irrelevancy theory of capital structure. This theory is, however, concerned with the capitalization of after-tax earnings of the firm in the market. It relates EAT with the market value of share capital.

2.1.4.3 Traditional Approach

The traditional approach, also known as an intermediate approach, is a compromise between the net income approach and the net operating income approach. According to this view the value of the firm can be increased or cost of capital can be reduced by judicious mix of debt and equity capital. This approach very clearly implies that the cost of capital decrease within the reasonable limit of debt and then increase with leverage. Thus an optimum capital structure exists and occurs when the cost of the capital minimum or the value of the firm maximum. Figure 2.4 illustrates this traditional view, which suggests that the cost of capital declines rapidly with increasing debt over a certain range, and then begins to rise rapidly. The capital structure that sets the cost of capital to its lowest level is taken as the optimal capital structure.

Figure 2.4
Traditional View (Leverage-cost)



(Source: I.M. Pandey, Financial Management, 7th Revised Edition, 1995)

According to this traditional approach, the point that fixed cost of capital to its minimum level cannot be obtained. The firm should determine its capital structure so that the cost of capital remains as close to the lowest point as possible. Thus, any firm should decide the range of its cost of capital and should make decision about its capital structure to remain within the determined range.

2.1.4.4 Contemporary Optimal Capital Structure Approach

In their 1958 article, MM had based their explanation in the world with out taxes and declared that the capital structure decision is irrelevant for the market value of the firm. According to them the firm value is determined by capitalizing the net operation income at a rate appropriate for the firm's risk class, i.e. at risk-adjusted capitalization rate. Cost of equity rises proportionately with financial leverage to compensate the additional savings from low cost of debt by the additional risk premium. In other words the additional benefit of cheaper fund, debt, is exactly offset by the increase in the cost of equity.

When the tax effect is considered in MM theory, net income is used to calculate the value of the firm. Due to the tax deductibility of interest, the value of levered firm increases with the amount of tax saving. Moreover, the tax saving resulted from debt financing surpasses the increase in cost of capital and ultimately decrease the overall cost of capital in each unit increase in leverage. Tax is not the only factor affecting the capital structure. MM said nothing about the effect of cost potential bankruptcy, agency cost, possibility of low EBIT, increase in interest rate etc. these costs increase with increase in leverage which after some point of leverage more than off-sets the benefit of tax saving. After that, cost of capital increase in higher rate than the increase in saving.

Thus, contemporary theory advocates that the increase in leverage is favorable to the firm only to a certain extent of debt after which it becomes burdensome for the firm. This theory also takes into consideration the rationality of both the stockholders as well as the loan providers and presents similar but more practical justification to the traditional view.

2.1.5 Theoretical Models

The M&M propositions have created a starting point for capital structure theory and today there are three models that have made it into the mainstream of corporate finance. Out of these models it is only the Trade-off Model that provides an actual formula for calculating the optimal capital structure. The Pecking Order Hypothesis and the Signaling Hypothesis only try to explain observed patterns, not calculate an optimal capital structure level (Copeland & Weston, 1992:514).

2.1.5.1 The Trade-off Model

According to Modigliani & Miller (1963), firms would prefer to be 100% debt financed, to take full advantage of the tax shield. However, a 100% debt financing is not what can be seen in the real world, which is due to the fact that there is a cost to going bankrupt. In the M&M propositions it is assumed that there are no bankruptcy costs, and this has been shown to be an important determinant of capital structure. The trade-off model is based on the value of an unleveled firm, where the optimal capital structure is found at the trade-off point where the gain from adding additional debt is offset by the extra incurred cost of financial distress. The value of the company without considering the cost of the risk for financial distress. When financial distress is taken into account and deducted from the upper curve, we arrive at the lower curve. The optimal capital structure is where the lower curve has its highest point.

2.1.5.1.1 Financial Distress

Debt provides tax benefits to the firm, but it also puts pressure on the firm, since interest and principal payments are obligations, according to the trade-off model. The closer the firm is to bankruptcy, the larger is the cost of financial distress. The ultimate financial distress is bankruptcy, where ownership of the firm's assets is legally transferred from the stockholders to the bondholders. Bankruptcy costs are made up of two parts, direct and indirect costs.

Haugen & Senbet (1978), Direct costs can be seen as out-of-pocket cash expenses, which are directly related to the filing of bankruptcy and the action of bankruptcy. Examples of direct costs are fees for lawyers, investment bankers, administrative fees and value of managerial time spent in administering the bankruptcy). In 1990, Weiss estimated the direct cost of bankruptcy for 37 New York and American Stock Exchange firms to be 3.1% of the firm value.

Warner (1977), found that direct costs of bankruptcy decrease when the size of the firm increases which implies that for large companies bankruptcy costs are less important when determining capital structure than it is for smaller firms. Indirect bankruptcy costs are expenses or economic losses that result from bankruptcy but are not cash expenses on the process itself. Examples of such costs caused by bankruptcy are sales that are lost during and after bankruptcy, diversion of management time while bankruptcy is underway, and loss of key employees after the firm becomes bankrupt. Sales can frequently be lost because of fear of impaired service and loss of trust.

Altman (1984), with a sample of 19 firms, 12 retailers, and 7 industrials that all went bankrupt between 1970 and 1978. By comparing expected profits with actual profits, he found the arithmetic indirect bankruptcy costs to be 10.5% of firm value. also estimated that both indirect and direct costs together are frequently greater than 20% of firm value. These findings give us reason to believe that bankruptcy costs are sufficiently large to support a theory of optimal capital structure that is based on the trade-off between gains from the tax shield and losses that come with costs of bankruptcy.

2.1.5.1.2 Agency Costs

Another factor that can be added to the trade-off model is the agency cost, which arises due to conflicts of interests. There are two types of agency costs: agency costs

of equity and agency costs of debt. Agency cost of equity has its roots in the simple argument that you will work harder if you are the owner of the company than if you were an employee. Also, if you own a larger percentage of the company, you will work harder than if you owned a smaller percentage of the company (Copeland & Weston, 1992: 531).

Agency costs of debt occur because there is a conflict of interest between stockholders and bondholders. As a firm increases the amount of debt in the capital structure, bondholders begin taking on an increasing fraction of the firm's business and operating risk, but shareholders and managers still control the firm's investment and operating decisions. This gives managers a variety of different ways for selfish strategies, which will increase their own wealth, on behalf of the cost of the bondholders.

2.1.5.2 Pecking order hypothesis

While the trade-off model of corporate leverage has to be considered the "mainstream" choice as the dominant capital structure theory today, there are several embarrassing regularities in observed corporate behavior that it cannot explain. Three real-world patterns are particularly hard to reconcile with even the most sophisticated trade-off model: (1) within almost every industry, the most profitable firms have the lowest debt ratios, which is exactly opposite of what the trade-off model predicts; (2) leverage-increasing events, such as a stock repurchase and debt-for-equity exchange offers, are almost invariably associated with large positive abnormal returns for a company's stockholders, while leverage-decreasing events lead to stock price declines. According to the trade-off model, these events should both net out to zero abnormal returns, since some firms will be below their "optimal" debt level when they increase leverage, while others will be above the optimum; (3) firms issue debt securities frequently, but seasoned equity issues are very rare. Announcements of new issues of seasoned equity are invariably greeted with a decline in the firm's stock price (Myers & Majluf, 1984: 304).

Donaldson (1961), has found a pecking order for how firms establish their long-term financing:

- 1. Firms prefer internal financing to external financing of any sort (debt or equity), when financing positive NPV projects.
- 2. When a firm has insufficient cash flow from internal sources, it sells off part of its investment in marketable securities.
- 3. As a firm is required to obtain more external financing, it will work down the pecking order of securities, starting with very safe debt, then progressing through risky debt, convertible securities, preferred stock, and lastly common stock.

The pecking order hypothesis does not provide a formula for calculating an optimal capital structure but it helps to explain observed patterns regarding financing preferences.

2.1.5.3 Signaling hypothesis

When valuing a company we cannot be sure that the market knows the return stream of the firm and can value this stream to set the value of the firm. What is valued in the market place is the perceived stream of returns for the firm. However, managers of the firm have access to information about the firm that the public does not have access to. Therefore managers might elect to use financial policy decisions to convey this information to the market. The signaling hypothesis suggests that a higher financial leverage can be used by managers to signal an optimistic future for the firm. Unsuccessful firms cannot mimic these signals because such firms do not have sufficient cash flow to back them up (Ross, 1977:154).

The signaling hypothesis offers a good prediction of the market responses to the different types of security issues. Debt issues are signaling good news, and are greeted with a positive stock price response, while equity issues are signaling bad news, which is met with significant stock price declines. However, observed capital structure patterns suggest that the signaling hypothesis does not predict actual behavior very well. For example, leverage ratios have been found to be inversely related to profitability in most industries and not directly related as the signaling hypothesis predicts them to be. Another proof to be found is that the signaling hypothesis predicts that industries with extensive growth options and other intangible assets should employ more debt than mature and tangible-asset wealthy industries, since growth companies have more severe information asymmetry problems, and therefore has a greater need for signaling. However, the total opposite has been found in empirical studies. It can therefore be concluded that the signaling hypothesis does not explain the real world of modern corporate finance very well (Megginson, 1997:217).

2.1.6 Risk Measure in Capital Structure

About the relationship between risk and leverage Weston and Brigham (1981) have presented a very clear picture and have stated: risk, as measured by the standard deviation, has a linear relationship to the debt to equity ratio measured at the book value but an upward curvilinear relationship to the debt to total assets ratio at book value. Conversely, when risk is measured by the co-efficient of variation, the relationship to the book debt to total assets ratio is linear. Because of the theoretical relationship between beta and leverage, the relevant leverage ratios for comparison with beta are at market values. At market values, the relationship between beta and the debt to equity ratio is linear, and between beta and the ratio of debt to the total value of the firm is curvilinear upward. The different shapes of the relationship stem from the basic underlying theory of the computations involved. But what is common to all of the six portrayals of the relationship between risk and leverage is that to obtain the higher expected earnings (whether measured by earnings per share of return on shareholders' equity) that go with increased leverage, the firm must incur more risk.

To sum up, there is a positive relationship between return and risk, and there is also a positive relationship between risk and the degree of leverage employed. Thus, the higher the leverage, the higher the return and consequently the higher will be the risk.

2.1.7 Financial leverage and ROE

With financial leverage, the advantages lies in the possibility that funds borrowed at a fixed interest rate can be used for investment opportunities earning a rate of return higher than the interest paid. The difference, of course, accrues as profit to the owners of the business. This additional profit earned is the leverage effect generated by the employment of low cost fund.

Given the ability to make investment that consistently provides returns above the going rate of interest, it will be to a company's advantage to engage in 'trading on equity'. This means borrowing as much as prudent debt management will permit, and thereby boosting the return on owners' equity by the difference between the rate of return achieved and the rate of interest paid. The opposite effect will, of course, apply if the company earns returns below the rate of interest paid.

2.1.8 Business and Financial Risk

A company's total risk consists of a combination of business and financial risk. The total risk is important since it will determine the rate of return the investor demands from the company. In order to reach an appropriate total risk, a company's financial risk must be determined in relation to the company's business risk. Business risk is determined by the industry and competitive environment in which the company operates, while financial risk depends upon the capital structure and financial policies adopted by the company. As risk levels are determined by the volatility of future expected returns, a high leverage level will result in a high perception of financial risk since interest has to be paid as a fixed expense. Conversely, a company which exclusively uses equity funding will have a much lower level of financial risk since dividend payments are not obligations. It is the combined level of risk that is important for a company, which enables an appropriate combination of business and financial risk, to be established for any company. An appropriate combination of business and financial risk is either in the lower right corner where the company faces a low business risk and a large financial risk or in the upper left corner facing a high business risk and a low financial risk, as seen in figure 2.6. When such positioning is achieved, the company's total risk is at a satisfactory level. An inappropriate positioning is in the upper right corner where the company faces a high business risk and a high financial risk. The company's total risk will be excessively high and its probability of total collapse will increase dramatically. Another inappropriate positioning is in the lower left corner where a company faces a low business risk and a low financial risk. Such a company would benefit if it accepted a larger financial risk, thus making use of the advantages that come with debt financing, such as the low cost of debt which is significantly lower than the required rate of return on equity and the benefit of the tax shield. A high financial risk is possible for a low business risk company, since it has strong consistent profits and cash flows to cover the fixed debt payments. However, many such companies would argue that, since they are now highly profitable and cash positive, they do not need to raise debt financing for their business. This is a dangerously "fat and happy" attitude, which has led to the situation where many companies have been taken over by corporate raiders. The corporate raider is looking for exactly this type of Target Company with a sound competitive strategy but with an inappropriate financial strategy (Weston & Brigham, 1990:259).

Inappropriate: Appropriate: High Business **High Business** Risk Risk High Financial High Financial Risk Risk **Business Risk** Inappropriate: Appropriate: Low Business Low Business Low Risk Risk High ow Financial Financial Risk Low High Financial Risk Source: Ernst & Young Corporate Finance

Figure 2.5
Business and Financial risk

(Source: Weston & Brigham, Essentials of Managerial Finance, 9th edition 1990)

2.1.9 Factors Determining Capital Structure

Firms can use either debt or equity to finance their assets. Is one form better than the other? If so, should firms be financed either with all equity or all debt? Or, if the best choice is some mix of equity and debt, what is the optimal mix? What sort of capital structure maintains balance between risk and profitability (return)? In respect to these issues of capital structure several theories have been proposed which suggest that firms select capital structures depending on attributes that determine the various costs and benefits associated with debt and equity financing.

Different capital structure models yield a numbers of insights. Here, the attributes that different theories of capital structure suggest may affect the firm's debt-equity choice have been described. The firm-specific variables or attributes, viz.; tax shields, asset structure, profitability, size, growth, volatility, liquidity and product uniqueness are considered as the key determinants of capital structure decisions. The attributes and their relation to determine capital structure choice are discussed below (Titman and Wessels, 1988: 201).

Taxation:

Taxation has been scrupulously investigated as a factor that determines the capital structure of the firms. The key feature of the taxation is that interest is a tax-deductible expense. A firm that pays taxes receives a partially offsetting interest 'tax-shield' in the form of lower taxes paid. Therefore, as Modigliani and Miller (1963) propose, firms should use as much debt capital as possible in order to maximize their value. Along with corporate taxation, researchers were also interested in analyzing the case of personal taxes imposed on individuals. Miller (1977), based on the tax legislation of the U.S., discerns three tax rates that determine the total value of the firm. These are the corporate tax rate, the tax rate imposed on the income of the dividends and the tax rate imposed on the income of interest inflows. According to Miller, the value of the firm depends on the relative height of each tax rate, compared with the other two.

De-Angelo and Masulis (1980), present a model of optimal capital structure that incorporates the impact of corporate taxes, personal taxes and non-debt tax shields. They advocate that tax deductions for depreciation and investment tax credit are substitutes for the tax benefits for debt financing. Therefore, the firms with large non-debt tax shields relative to their expected cash flow include less debt in their capital structures.

Asset Structures:

Titman and Wessels (1988), Rajan and Zingales (1995) and Fama and French (2000) argue that the ratio of fixed to total tangible assets should be an important factor for leverage. The tangibility of assets represents the effect of the collateral value of assets of the firm's gearing level. Scott (1976) argues that a firm determining the optimal capital structure will issue as much as secured debt as possible, because the agency costs of secured debt are lower than unsecured debt. By the same token, the degree to which the firm's assets are tangible and generic should result in the firm having a greater liquidation value (Titman and Wessels, 1988). This will reduce the magnitude of financial loss incurred by financiers should the company default. Hence, the trade-off theory predicts a positive relationship between leverage and the proportion of tangible assets. From the pecking order theory perspective, the firms with few tangible assets are more sensitive to information asymmetries and these firms will thus use debt financing rather than equity financing for their external capital requirement (Harris and Raviv, 1991). Therefore the positive between tangible asset and leverage is expected.

Profitability:

One of the main theoretical controversies concerns the relationship between leverage and profitability of the firm. From the trade-off theory perspective, when the firms are profitable, they prefer debt because the expected bankruptcy cost declines with increasing profitability as well as the interest tax shield will drive for higher profitability. Jensen and Meckling (1976), Easterbrook (1984), and Jensen (1986) suggest that higher leverage helps to control agency problems by forcing managers to pay out more of the firm's excess cash.

Under pecking order theory, firms prefer using internal sources of financing first then debt and finally external equity (Myers and Majluf, 1984). Due to information asymmetries between the firm and outsiders, the firms have a preference for inside financing over outside financing, as the cost for outside capital should be greater for the firm. Therefore, profitable firms, which have access to retained earnings, can use

these for firm financing rather than accessing outside sources (Cassar and Holmes, 2003, p. 128). Firms with very high ROEs use relatively little debt (Brigham, 1999: p. 609).

Size:

The size of the firm is also an important factor to determine the leverage or the capital structure of the firm. Warner (1977) and Ang *et at.* (1982) suggest that bankruptcy costs are relatively higher for smaller firms. In a similar vein, Titman and Wessels (1988) argue that larger firms tend to be more diversified and fail less often. Accordingly, the trade-off theory predicts an inverse relationship between size and the probability of bankruptcy, that is, a positive relationship between size and leverage. Jensen (1986) and Easternbrook (1986) agree that the size has a positive impact on the supply of debt.

On the other hand, size can be regarded as a notion for information asymmetry between firm insiders and the capital markets. Large firms are more closely observed by analysts and should therefore be more capable of issuing informationally more sensitive equity, and have lower debt. Accordingly, the pecking order theory of the capital structure predicts a negative relationship between leverage and size, with larger firms exhibiting increasing preference for equity relative to debt.

Growth:

Firms with a high proportion of non-collateralizable assets (such as growth opportunities) could find it more expensive to obtain credit because of the asset substitution effect (Titman and Wessels, 1988). Similarly, firms in growing industries may have greater flexibility in their choice of investments, allowing equity holders to capture wealth from bondholders. Either way, firms with important growth opportunities are likely to face high agency costs of debt and hence are likely to rely more on equity funds. For companies with growth opportunities, the use of debt is limited as in the case of bankruptcy, the value of growth opportunities will be

close to zero (Gaud *et al.*, 2005, p. 53). Hence, the trade-off model predicts that firms with more investment opportunities have less leverage.

By contrast, firms with high collateralizable assets could face lower costs of debt. Myers (1984) noted that cost associated with agency relationship is likely to be higher for such growing firms however it can be mitigated if the firm issues short-term rather than long-term. Therefore, these firms should look to short-term debt than long-term debt for their financing requirements. This should lead to firm with relatively higher growth having more leverage (Cassar and Holmes, 2003: 129).

Volatility:

One firm variable which impacts upon this exposure is firm operating risk, in that more volatile firm earnings streams, the greater the chance of the firm defaulting and being exposed to such cost. Consequently, these firms with relatively higher operating risk will have incentives to have lower leverage than other more stable earning. Myers (1977) suggests that under-investment problem increases with the volatility of the firm's cash flow because firm with high volatility of cash flow tries to accumulate cash. Firms with stable cash flows should suffer from over-investment problems and these firms have more leverage (Easterbrook, 1984; Jensen, 1986). Hence, trade-off theory predicts negative relationship between leverage and volatility of cash flows.

Furthermore, DeAngelo and Masulis (1980), argue that for firms, which have variability in their earnings, investors' prediction of firm's earning will be lower. The market will demand a premium to provide debt. This drives up the cost of debt. Also, to lower the chance of issuing new risky equity or being unable to realize profitable investments when cash flows are low, firms with more volatile cash flows tend to keep low leverage. Accordingly, the pecking order model predicts a negative relationship between leverage and the volatility of the firm's cash flows.

Liquidity:

Liquidity may have mixed impact on the capital structure decision. First firms with higher liquidity ratios might support a relatively higher debt ratio due to greater ability to meet short-term obligations when they fall due. This would imply a positive relationship between a firm's liquidity position and its debt ratio. On the other hand, firm with greater liquid assets may use these assets to finance their investments. Prowse (1990) argues that the liquidity of the company's assets can be used to show the extent to which these assets can be manipulated by shareholders at the expenses of bondholders. Ozkan (2001) finds that liquidity is inversely related to leverage.

Product Uniqueness and Industry Classification:

Titman (1984), shows that a firm's capital structure should depend on the uniqueness of its product. If a firm offers unique products or services, its consumers may find it difficult to find alternatives in case of liquidation, and hence, the costs of bankruptcy increase. Accordingly, uniqueness is expected to the negatively related to debt ratios. The indicators of uniqueness include expenditure on research and development (R&D) and advertisement expenditure. The firms that produce products that are unique or require service and/or parts and firms for which a reputation for producing high quality products is important may be expected to have less debt (Titman, 1984). The most basic facts concerning industry characteristics and capital structure are that firms within an industry are more similar than those in different industries. And it is obvious that the firms within an industry are similar in most of other respect like assets structure, production/service technology, legal framework etc.

Besides the firm specific attributes described above, other firm specific attributes as well as macroeconomic factors, such as, economic growth rate, inflation rate, capital market development, government policies etc., also play important roles to determine the capital structure decision of the firms. The common practices of firm, the competencies of financial managers, age of incorporation, the availability of financing alternatives, and other institutional context are some other determinants of capital structure. Research works in this regard are contributing to enrich the capital structure theories.

2.2 Review of Previous Studies

2.2.1 Review of Articles

Weston (1963), in "A Test of cost of capital proposition", he made some important improvement in the cost of capital model. He included firm size and growth as additional explanatory variables in his model. He found the regression co-efficient of

leverage to be positive and significant, when he used M-M model. However, when the multiple regressions were calculated, he fund that the correlation co-efficient is significant and the regression co-efficient of leverage is negative and significant. When the influence of growth is isolated, Leverage is negatively correlated with the cost of capital. He concluded that the apparent lack of influence of leverage on the overall cost of capital observed by M-M was due to the negative correlation of leverage with earning growth. Weston also tested M-M proposition II. When he useds the M-M's model his results were and to be consistent with their results i.e. cost of equity is the linear function of debt equity ratio.

Rao and Lintznberges (1970) conducted the study on "Effect of Capital Structure in the Cost of Capital in a less developed and less efficient capital market (India) and in a highly developed and efficient capital market (United State)". They used 28 Indian utilities and 77 American utilities. They found that the results for the American utilities are consistent to the M-M proposition that except for the advantage of debt financing, the cost of capital is independent of capital structure and the results also supported that the M-M hypothesis that investors are indifferent for the firm's dividend policy. In case of Indian utilities, the results are inconsistent to the M-M approach and support the traditional belief, the judicious use of financial leverage will lower than the firm's cost of capital and investors have a preference for current dividends. In conclusion, they contended that the M-M approach after allowing for the tax advantage of debt, the firm's cost of capital is independent of capital structure does not appear to be applicable in the case of a developing economy.

Hatfield, Cheng, and Wallace (1994) conducted a study on "The Determination of Optimal Capital Structure: The Effect of Firm and Industry Debt ratios on Market Value". This study tests DeAngelo and Masulis' (1980) and Masulis' (1983) theory that a firm would seek an "optimum debt level," and that a firm could increase or decrease its value by changing its debt level so that it moved toward or away from

the industry average. Their results do not find support for the argument. They defined industry using two different databases (Value Line and COMPUSTAT) and calculated the leverage ratio based on book and market values for equity, but the results did not change. Their overall conclusion is that the relationship between a firm's debt level and that of its industry does not appear to be of concern to the market. A single post-event interval (day 2 to 90) depicted a slow, negative effect following the debt issue (a 3.2% loss). The High Debt firms had significant negative market reactions for several intervals; however, the difference between this group and the Low Debt firms was not statistically significant. These results suggest, overall, that the market does not consider industry averages for leverage as discriminators for firms' financial leverage. The findings were surprising. The above review of empirical research cited numerous studies, which had documented a relationship between industry membership and capital structure. Firms in a given industry tend to have similar capital structures. Their study shows that the market does not appear to consider the relationship between a firm's leverage ratio and the industry's leverage ratio important. This finding is consistent with the original Modigliani and Miller (1958) proposition that financial leverage is irrelevant to the value of the firm.

Dr. Shrestha(1995) conducted the study on "Analysis of Capital Structure in Selected public enterprises". The main objective of that study is to analyze the capital structure of public enterprises. In this study, Dr. Shrestha used ratio analysis as the tool of analysis and found that the selected public enterprises under study have a very confusing capital structure since the corporations are not guided by the objective based on financial plan and polices. He further added that many instances adhocism become the basis of capital structure and most of them want to eliminate debt if possible to relieve financial obligation, there are neither the public enterprises nor Government development criteria in determining capital structure and this is the reason as to why debt-equity ratio became a ticklish problem. Lastly he has also suggested that the debt-equity ratio should neither be highly levered to

create too much financial obligation that beyond capacity to meet not should it be much low levered to infuse operational strategy to pass responsibilities without performance.

Aivazian, and Maksimovic (1999) conducted a study on "Capital Structures in Developing Countries". This study uses a new data set to assess whether capital structure theory is portable across countries with different institutional structures. They analyze capital structure choices of firms in ten developing countries, and provide evidence that these decisions are affected by the same variables as in developed countries. However, they found that there are persistent differences across countries, indicating that specific country factors are at work. Their findings suggest that although some of the insights from modern finance theory are portable across countries, much remains to be done to understand the impact of different institutional features on capital structure choices. They find that the variables that are relevant for explaining capital structures in U.S. and European countries are also relevant in developing countries, despite the profound differences in institutional factors across these developing countries.

Biais, Bruno and Catherine (1999) performed a research on "Optimal Leverage and Aggregate Investment" and tested different models. The researchers analyzed the optimal financing of investment projects when managers must exert unobservable effort and can also switch to less profitable riskier ventures. As per the findings optimal financial contracts can be implemented by a combination of debt and equity when the risk-shifting problem is the most severe. Further, finding of the study was that worsening of the moral hazard problems leads to decreases in investment and output at the macroeconomic level. Moreover, aggregate decreases with the risk-shifting problem and increase with the effort problem. The researchers concluded that if the risk-shifting problem is dominant, the optimal financing scheme is a combination of debt and outside equity. When the effort problem is the major source

of moral hazard, stock options awarded to the manager must be added to the array of financial instruments.

Eriksson and Hede (1999) conducted a study on "Optimal Capital Structure - A case study of three real estate companies". The study examines how three real estate companies decide their capital structure in a real life context. They have studied three companies within the real estate industry due to comparable issues. Their result reveals that the companies do not use any mathematical model when deciding their capital structure but they do consider many important factors. They also found that the business and financial risk have the largest impact on the decision even though there are individual variations. Tradition is another factor that seem to influence the management a lot. Their investigation of the three case companies reveals three different scenarios. Castellum could really improve their capital structure by increasing the leverage level without causing financial distress. Wallenstam had a capital structure that was optimal or at least very close to optimal. Finally, Platzer had a leverage level that was too high since their total risk exceeded an appropriate capital structure.

Wasti (2003) conducted on study on "An analysis of financial soundness of Baba Biscuits products Ltd.", suggested to raise it's paid up share capital or arrange a soft loan at very low rate of interest as the company has heavy debt caption rather than ownership capital.

2.2.3 Review of Theses

Dhungana (2000) conducted a study on "Capital Structure of Nepalese Hotels". This study is the comparative analysis of capital structure maintained by the hotels and its impact on the earnings of the company as well as that of shareholders. The researcher had selected the 4 hotels (2 hotels from public limited and 2 hotels from private limited) to conduct the research work based on the analytical and

exploratory methods. The study covered the data of past 6 years period (FY2049/50 to FY2054/55) based on secondary data. The researcher had used financial tools include different capital structure related ratios like debt-equity ratio, degree of financial leverage, capitalization, coverage ratios and statistical tools include average and Karl Pearson's coefficient of correlation. The researcher concluded that tax deductibility of interest on debt is the gist of capital structure decision. He also concluded that the use of more equity than debt is better for less developed capital market as ours. Higher debt financing is better only when net operating income is fairly high as well as consistent over years. He found that there is negative correlation between the debt-equity ratio and return on equity nearly irrespective of EBIT amount generated by these firms.

Sapkota (2002) conducted his study on "A Study of Capital and Assets Structure Management of Nepal Bank of Ceylon." The main purpose of the study was to examine interpret the capital and assets structure of NBOC. For analysis purpose he used both financial as well as statistical tools. After analysis of data he found that bank was exposed with financial risk and operating risk. He also discovered that cash reserve for deposits withdraw was too high which meant cash was under utilized. By applying statistical tools he found that there was positive relationship between total deposit and investment. From his analysis he suggested that bank should concern about its both risk, and cash fund should properly utilized.

Baral (2004) had completed his Ph.D. thesis on "capital structure and cost of capital in public sector enterprises in Nepal". He had used correlation coefficient as an analical tool for conducting his research. Trend analysis and ratio analysis is his subsidiary tools. He had concluded that capital structure of corporate enterprises in public sector in Nepal more or less is the outcome of the deliberate decision of HMG Nepal, but not a product of market and their (public Enterprises) structures. Further he added that debt capital has not been raised rationally so as to make the

management cost conscious and efficient. And compel the enterprises. At last he added that performance of PEs is very poor and they are not supporting to increase the wealth of the society but diluting it, and hindering the development of the country.

Gajurel (2005) conducted a study on "Capital Structure Management in Nepalese Enterprises". This study attempts to explain the capital structure pattern and its determinants for a penal set of 20 non-financial firms listed in NEPSE for 1992-2004. This is the empirical study based on the analytical and descriptive research design. This study covered accounting data of firms listed in Nepal Stock Exchange Limited (NEPSE) for the period of 1992-2004 mainly based on the secondary data. However some data have also been collected from primary sources. By using decompositional analysis, properties of portfolio analysis, econometric analysis and opinion survey of managers, he found that Nepalese firms are highly levered, however the long-term debt ratio is significantly low. The researcher has observed assets structure and size of the firm and found positively related to leverage where as liquidity, risk, growth, non-debt tax shield are negatively related to leverage. He also found that the macroeconomic factors GDP, inflation and capital market influence in firm's capital structure decisions. He found that Nepalese managers prefer internal financing first followed bank loan financing.

Mahato (2005) conducted a study on "Capital Structure and cost of capital: An Empirical Study of Nepalese Enterprises". The main objective of the study was to examine the relationship between cost of capital and capital structure and fundamental variables in Nepal manufacturing enterprises. The researcher adopted the descriptive cum analytical research design to conduct the study. The study covered the data of past 4 years period (1999/00 to 2002/03) based on primary and secondary data. The researcher had select 6 manufacturing enterprises (2 governments owned manufacturing companies and 4 private owned companies) out of 118 listed companies from the NEPSE Ltd. for his study purpose. The researcher had used correlation and regression analysis as statistical tool to examine the

objective the study. He concluded that the cost of capital is negatively related to leverage, size of capital employed, liquidity ratio and earning variability and positively related to growth in total assets for both sectors. However, cost of capital is positively related to dividend payout ratio for private owned companies and negatively related for government owned companies. The researcher has also concluded that the MM hypothesis is not accepted in his study.

Gautam (2006) conducted a study on "Capital Structure Management of Listed Joint Venture Commercial Banks". The main objective of the study was to analyze, examine and interpret the capital structure of the selected banks. The researcher had developed the descriptive and analytical research design. He had select 2 commercial banks (Standard Chartered Bank Nepal Limited and Nepal Bangladesh Bank Limited) for his study purpose. The study covered the data of past 6 years period (1999/00 to FY2004/05) mainly based on secondary data. The researcher had used financial tools include different capital structure related ratios like debt ratio, degree of financial leverage, capitalization, coverage ratios and statistical tools include average and correlation analysis to examine the objectives of the study. He concluded that the there is significant relationship between EBIT and interest payment. He also concluded that there is no proper relationship between overall capitalization rate and debt-equity ratio.

Singh (2007) in a study on "The Capital Structure decision and it's Impact on Risk and Return of Hulas Steel Industries Pvt.Ltd.", Mr. Mukund Prasad Singh derived that the debt equity ratio was lower than standard. As the company had used more short-term debt, total debt to total assets ratio was also high. And the interest coverage ratio was in increasing trend. He suggested taking the corrective measures for the proper capital structure.

Limbu (2008) on "A comparative study on capital structure between Butwal Spinning Mills and Jyoti Spinning Mills Limited" reveals that the long term debt to total debt ratio was higher than the general acceptable level. The debt servicing capacities of both companies were not satisfactory due to the negative interest coverage ratio. The return on capital employed and debt removing capacity also was not satisfactory due to, the negative earnings.

The overall capitalization rate and equity capitalization rate was also in negative from. Thus, he also suggested changing the different credit of Butwal Spinning Mills to share capital and preference share of Jyoti Spinning Mills to equity capital. He further emphasized that the companies should reduce operational cost and utilizes optimum capacity.

CHAPTER - III

RESEARCH METHODOLOGY

Research Methodology is a way to solve the research problem systematically. It may be understood as a science of studying how research is done scientifically. The research methodology considers the logic behind the method used in research and explains why particular method or technique is applied.

Research methodology helps us to find out accuracy, validity and suitability of research. The justification on the present study cannot be obtained without help of proper research methodology. For the purpose of achieving the objectives of study, the applied methodology will be used. Research methodology describes the methods processes applied in the entire aspect of the study. This research methodology base on evaluation of the capital structure of commercial in Nepal with special references to Everest Bank, Nepal Investment Bank Ltd. and Himalayan Bank Limited. Research methodology refer to the various sequential steps. This chapter describes research design, population and sample procedure, and sources of data and analysis of data.

3.1 Research Design

Research design means definite procedure and technique which guides to study and profound ways for research viability. So research design is necessary to fulfill the objectives of any research. "A Research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the search purpose with economy in procedure.

In fact, the research design is the conceptual structure within which research is conducted. It constitutes the blueprint for the collection, measurement and analysis of data. The task which defines the research project is popularly known as research design. The function of research design is to provide for the collection of relevant evidence with minimum expenditure of effort, time and money. But how these can

be achieved depends mainly on the research purpose. It is the main part of thesis or any research work.

3.2 Nature and Sources of Data

There are two sources of data collection. The research is based on mainly secondary source of data. Even though adequate data are collected from secondary sources some questionnaire are asked to respond. This refers to data that are already used and gathered by others. Secondary data are mostly used for this research purpose. So the major sources of secondary data are as follows

- Annual Report of concerned Banks.
- Internet and E-mails.
- NRB directives.
- Economy survey of Government of Nepal and Ministry of finance.
- Newspaper, journals, articles and various magazines.
- Dissertation of Central Library of T. U. and Library of Shanker Dev Campus.

3.3 Population and Sample

The objective of the research is to explore and describe the capital structure of commercial bank in Nepal from the various aspects. The total 26 commercial banks are consider to be population of the study but it is not possible to take all, so three commercial bank are taken as a sample study. They are EBL, NIBL and HBL.

3.4 Data Collection Procedure

Different tools and techniques were adopted while collecting the data for this study. Collected secondary information was analyzed during the course of the deskwork. However, during the desk study, an information gap was found. This gap was fulfilled by the discussion with the thesis advisor and finance experts of the security board and the NEPSE.

3.5 Analysis of Data

Appropriate financial and statistical tools are used according to the nature of data as well as subject mater. The major tools to be employed for the analysis of the data will be the ratio analysis, which establishes the quantitative or numerical relationship between two variables of the financial statements. Besides these, the statistical tools shall be used to analyze for test of the hypothesis.

3.5.1 Financial Tools (Ratio Analysis)

(a) Debt to Equity Ratio (D/E) Ratio:

Debt equity ratio is one of the most popular tools of the long-term financial solvency of the firm. The debt-to-equity ratio is computed by simply dividing the total debt of the firm by its shareholder equity. This ratio expresses the relationship between debt capital and equity capital and reflects the relative claim of them in the asses of the firm. Thus, it shows the relative proportion of capital contribution by creditors and by owner of the firm in its financing.

The conceptual meaning of debt to equity ratio refers that the relationship describing the lender's contribution for each rupees of the owner's contribution. The debt to equity ratio is calculated as:

$$D/E X \frac{Shareholder's\ equity}{Total\ Debt}$$

If the D/E ratio is high, it indicates that the claim of the creditors is higher (greater) than that of the owners. A high debt equity ratio indicates also a financial risk (Weston and Bringham, 1996:308)

(b) Total Debt to Total Assets (TD/TA)

The ratio of total debt to total assets generally called the debt ratio, measures the percentage of total funds provided by creditors to manage the total assets for the firm (Weston and Bringham, 1996, 315)

$$TD/TA \times \frac{Total\ Debt}{Total\ Assets}$$

The higher ratio indicates that the creditors claim in the total assets of the company is higher than the owner's claim.

(c) EBT to EBIT Ratio (EBT/EBIT)

The EBT to EBIT ratio shows the relationship between EBT and EBIT. This relationship indicates that the decisive impact of the interest in the negative EBT. This ratio can be calculated as below:

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

Higher the ratio indicates that the impact of the interest burden in the negative EBT is very high and vice versa.

(d) EAT Ratio to Total Assets

The Eat to total assets ratio indicates the relationship between the net profit of the company and creditor's fund of the company. It is also calculated as follows:

EAT/Total Assets =
$$\frac{EAT}{Total Assets}$$

The higher ratio shows the return on assets of the company.

(e) Interest Coverage Ratio(IC)

The IC ratio shows how many times the interest charges are covered by that are ordinarily available to pay the interest. The IC ratio calculated as:

$$IC = \frac{EBIT}{Interest} X100$$

The higher IC ratio shows the company's strong debt servicing capacity.

(f) Return on Capital Employed (ROCE)

The term on capital employed measures that how effectively the management has utilized the capital. The creditors and owners supply the capital and they expect to manage the fund effectively:

ROCE =
$$\frac{Net \operatorname{Pr} ofitAfterTax}{CapitalEmployed} X100$$

The higher ratio of ROCE shows the more efficiency of the firm. In using funds entrusted to it.

(g) Return on Shareholders Equity

The ratio reveals how profitably the owner comparison of this ratio with that of similar firms as also with the industry average will throw light on the relative performance and strength of the firm. Without external financing the source of dividend growth is the retention of earnings and the return on this retention namely the return on equity (ROE). The ratio tells us the earning power on shareholder's book investment and is frequently used in comparing two or more firms in a company. In the calculation of Return on equity .ROE in Percentage is expressed as.

$$\textbf{ROE} = \frac{\textit{Net Pr of it After Tax ZPr eferred Dividend}}{\textit{Total Shareholder Equity}} X100$$

3.5.2 Statistical Tools

Besides the financial tools various statistical tools have been used while analyzing the data with a view to achieve the objectives of this research. The statistical tool used in this study is as follows:

Mean(X)

The most popular and widely used measure of representing the entire data by one value is what most laymen call an "average" and what the statisticians call the arithmetic mean. Its value is obtained by adding together all items and by dividing this total by the number of items. The mean value of ratios of study period all the manufacturing companies have been calculated to compare their results. The formula used for calculating mean is as follows:

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

(Where X is the sample mean and N is the sample size.)

Standard Deviation (S.D.)

The standard deviation measures the absolute dispersion (or variability) of distribution. The greater the amount of dispersion (or variability) the greater the standard deviation, and the greater will be magnitude of deviations of the values from their mean. A small standard deviation means a high degree of uniformity of the observation as well as homogeneity of a series; a large standard deviation means just the opposite. Standard deviation is extremely useful in judging the representatives of the mean. In this study standard deviations of ratios of both the Public Enterprises has been calculated to analyze and compare the dispersion within and in between the series of ratios of the companies.

$$u X \sqrt{\frac{\sum [\overline{x} - (x)]^2}{\overline{e}}}$$

Karl Pearson's Correlation Co-efficient (r)

Correlation analysis is the statistical tools that we can use to describe the degree to which one variable is liner related to another. Coefficient of correlation is the measurement of the degree of relationship between two casually related sets of figure whether positive or negative. Its values lie somewhere ranging between - 1 to +1. If the both variables are constantly changing in the similar direction, the value of coefficient will be -1, two variables take place in opposite defection. The correlation is said to be perfect negative. In this study, simple correlation is use to examine the relationship of different factors with working capital and other variable.

$$r X \frac{xy}{\sqrt{x^2 X y^2}}$$

Coefficient of Determination (R2)

The coefficient of determination is the square of correlation of coefficient. Coefficient of determination measure the proportion of two related variable.

its simply double of r

$$(r^2) = r \times r$$

Coefficient of variation:

The calculated standard deviation gives an absolute measure of dispersion. Hence where the mean value of the variables is not equal, it is not appropriate to compare two pairs of variables based on standard deviation only. The coefficient of variation (C.V.) is given by the following formula in the percentage basis:

Coefficient of variation (C.V.) =
$$\frac{\exists}{\mathbf{x}} \mid \mathbf{100}$$

If one variable increases as the other decreases then. 'r' will fall between o and -1 i.e. the inverse relationship exists. On the other side, if one variable increase the other also increase and the value of 'r' will be ranged between 0 and 1 i.e. the direct relationship exists (Gupta, 1997: 360)

Probable Error (P.E.)

The probable error is the measure of ascertaining the reliability of the value of Pearson Ian coefficient of correlation, P.E. is worked out as under for Karl Person's Coefficient of correlation:

Probable error X 0.6745 |
$$\frac{1 \operatorname{Z} r^2}{\sqrt{n}}$$

The probable error is used to test whether the calculated value of sample correlation coefficient is significant or not. A few rules for the interpretation of the significance of correlation coefficient are as follows:

- I. If r<P.E. (r), then the value of r is not significant (i.e. Insignificant)
- II. If r>6xP.E.(r), then r is definitely significant

In other situations, nothing can be calculated with certainty.

Testing of Hypothesis

Testing of hypothesis is one of the most important aspects of the theory of decision-making. Hypothesis is usually considered as the principal instrument in research. It can also be considered as suggested solution of the research problems, its main function is to suggest new experiments and observations. With the available data. Decision-Makers applied the hypothesis testing and give the decision accordingly. It may not be proved absolutely but in practice it is accepted if it has withstood a critical testing. Usually the statistical hypothesis is tested at 1%, 5% and 10% levels of significance.

With the sample size is large (i.e. n>30) Z-test used. It is based on the assumption that the population is known to be normally distributed and its standard deviation is assumed to be known. If the sample size is small and population standard deviation is unknown, it that case t-test is applied. F-test is applied to know whether two population have same variances or not. In other words, when we require to test about infirmity, consistency or homogeneity of distribution F-test is applied.

Here, the researcher has applied F-test withstood a critical testing, Usually the statistical hypothesis is tested at 1%, 5% and 10% level of significance. Thus, the significant test will be conducted in the analysis of the data.

Analysis of Variance (ANOVA)

In order to test whether all the means of different groups of sample have same common mean or not, analysis of variance is carried out. With this test one can make a inference whether the difference between the sample means is merely due to sample fluctuation or they are significantly different. The technique used in analysis of variance which compares the between-group variance to the within group variance if F-ratio.

Trend Analysis

The easiest way to evaluate the performance of a firm is to compare its current ratios with past ratios. When financial ratios over a period of time are compared it is known as the trend analysis. It gives an indication of the direction of change and reflects whether the firm's financial performance has improved, deteriorated or remain constant over time. The projections are based on the following assumptions: The least square method to trend analysis has been used in measuring the trend analysis. This method is widely used in practice. The straight-line trend of a series of data is represented by the following formula.

Y = a + bx

Here,

Y is the dependent variable, a is y intercept or value of y when x=0, b is the slope of the trend line or amount of change that comes in y for a unit change in x.

CHAPTER - IV PRESENTATION AND ANALYSIS OF DATA

This chapter deals with the presentation, analysis and interpretation of data using different tools and techniques of analysis. In this, different types of analysis tools have been attempted to analysis the capital structure position of sample banks. The chapter has main three sections. The first section deals with analysis of secondary data analysis. The third section includes the major finding of the study.

4.1 Financial Analysis

4.1.1 Analysis of Debt equity Ratio

Debt Equity Ratios show the corporate contribution of creditors and owners in assets. High ratio show a large share of financing by the creditors relatively to the owners and therefore a larger claim against the assets of the firm a low ratio implies a smaller claim of creditors. The calculated ratio of EBL, NIBL and HBL are presented in following table.

Table No. 4.1

Debt Equity Ratio of EBL, NIBL and HBL

| Fiscal Year | EBL | % Change | NIBL | % Change | HBL | % Change |
|----------------|-------|-------------|-------|----------|-------|-------------|
| 01/1/2004 | 19.79 | - | 27.45 | - | 16.98 | - |
| 01/1/2005 | 18.24 | 8.52 | 20.91 | 31.28 | 15.06 | 12.76 |
| 01/1/2006 | 17.45 | 4.50 | 13.74 | 52.18 | 13.57 | 10.97 |
| 01/1/2007 | 17.02 | 2.53 | 12.38 | 10.99 | 9.86 | 37.63 |
| 01/1/2008 | 11.85 | 43.63 | 16.3 | 24.04 | 9.91 | 0.50 |
| Average | 16.87 | - | 18.16 | | 13.08 | - |
| SD | 2.68 | - | 5.48 | | 2.82 | - |
| CV% | 15.89 | - | 30.19 | | 21.58 | - |

Source: Annual Report of Concern Banks

The average debt equity ratio of EBL, NIBL and HBL are 16.87, 18.16 and 13.08 respectively. NIBL has higher debt equity in comparison with EBL and HBL, on average. If indicates that there is high contribution of creditors in the firm then other Banks The calculated C.V. of debt equity ratio of NIBL is higher than other company, which, indicates that the debt equity of NIBL is more fluctuating than other Banks. In comparison among these Banks EBL has lower CV which indicates that the debt equity ratios one less fluctuating then others.

Figure 4.1

Debt Equity Ratio of Selected Commercial Banks

The Trend of D/E Ratio of Everest Bank Shows a increasing trend while Himalaya Banks D/E ratio trend is decreasing till 2005 and then it shows increasing trend on the others hand NIBL D/E ratio trends show decreasing till 2005 and stable at the one year and fast upward trend in the period of two years, which indicates that ratio trend of NIBL has more fluctuate than others banks. Its because due to higher CV%.

4.1.2 Analysis of Total Debt to Total Assets Ratio:

This ratio denotes structural relationship between total debt and total assets of a firm. Total debt is composed long-term debt and current liabilities, and total assets of the sum of total assets less depreciating, excluding fictitious assets. Total assets

can also be calculated as total capital plus current liabilities the higher ratio. Indicate that the creditors claim in the total assets of the current liabilities. The higher ratio indicates that the creditors claim in the total assets of the company is higher than the owners claim. The calculated ratios are presented in following table.

Table No. 4.2
Total Debt to Total Assets Ratios

| Fiscal | EBL | % Change | NIBL | % Change | HBL | % Change |
|-----------|-------|----------|-------|----------------|-------|----------|
| Year | EDL | % Change | NIDL | WIDE 70 Change | | % Change |
| 01/1/2004 | 0.96 | - | 0.97 | - | 0.91 | - |
| 01/1/2005 | 0.94 | 1.09 | 0.95 | 2.11 | 0.91 | 0 |
| 01/1/2006 | 0.94 | 0 | 0.91 | 4.40 | 0.89 | 2.25 |
| 01/1/2007 | 0.93 | 1.08 | 0.88 | 3.41 | 0.88 | 1.14 |
| 01/1/2008 | 0.99 | 0 | 0.88 | 0 | 0.88 | 0 |
| Average | 0.94 | | 0.92 | | 0.89 | |
| SD | 0.011 | | 0.032 | | 0.014 | |
| CV% | 1.17% | | 3.47% | | 1.59% | |

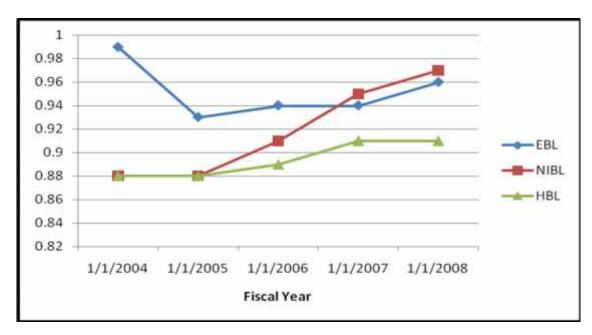
Source: Annual Report of Concern Banks

The average total debt to total assets ratio of EBL, NIBL and HBL are 0.94, 0.92 and 0.89 respectively. The highest ratio is 0.94 of EBL, lowest ratio is 0.89 is HBL and moderate ratio in between 0.92 is NIBL. Based on above calculation there is almost equal average total debt to total assets ratio. This indicates that there is almost equal level of claim of creditors of assets.

Nepal Investment Bank Ltd. has slightly higher CV% then other Banks which indicates that TD/TA ratio of NIBL are more fluctuating then other Banks.

Figure No. 4.2

Total debt to Total Assets Ratio of Selected Commercial Bank



The Trend of TD/TA ratio of Nepal Investment Bank has increasing from EBL shows a slightly upward trend through out the period while HBL shows a equal till 2008 and then increasing very slowly.

4.1.3 Analysis of EBT to EBIT Ratio

The relationship between EBT and EBIT shows the decline EBT and EBIT shows the decline impact of the interest burden in the profit before Tax. The impact of operating loss is not so much dominant as the interest burden. In the loss before tax. The higher ratio indicates that the impact of the interest burden in the negative EBT is very high and vice versa.

Table No. 4.3
EBT to EBIT Ratios of three Commercial Banks

| Fiscal Year | EBL | % Change | NIBL | % Change | HBL | % Change |
|-------------|------|-------------|------|----------|------|-------------|
| 01/1/2004 | 0.64 | - | 0.61 | - | 0.65 | - |
| 01/1/2005 | 0.49 | 30.61 | 0.58 | 5.17 | 0.55 | 17.94 |
| 01/1/2006 | 0.46 | 6.52 | 0.55 | 5.45 | 0.54 | 2.63 |
| 01/1/2007 | 0.46 | 0 | 0.57 | 3.64 | 0.48 | 12.5 |
| 01/1/2008 | 0.4 | 15 | 0.5 | 14 | 0.46 | 4.35 |

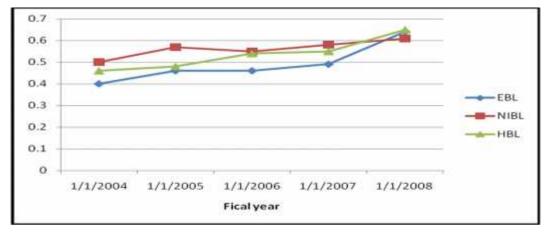
| Average | 0.49 | 0.56 | - | 0.54 | |
|---------|--------|-------|---|--------|--|
| SD | 0.08 | 0.04 | | 0.07 | |
| CV% | 16.43% | 7.15% | | 12.34% | |

Source: Annual Report of Concern Banks

The Average EBT/EBIT ratio is the selected banks over the period. The average ratio of EBL, NIBL and HBL are 0.49, 0.56 and 0.54 respectively. Covered shows Everest Bank having on average of 0.49 times greater interest change than the operating profit of the Bank. on the other hand NIBL and HBL have 0.56 and 0.54 times greater interest change than the operating profit of the Bank.

Fluctuating ratios are taken high level of risk because C.V. measures the per unit risk. Here EBL seems to be risky due to higher C.V than other.

Figure No. 4.3
EBT/EBIT Ratio of Selected Commercial Bank



The Trend of EBT to EBIT ratio among, EBL and HBL is in an ascending order as the year progresses. However NIBL shows a small declination in 2006 and then start to upward.

4.1.4 Analysis of Interest Coverage Ratio

The interest coverage ratios calculate the debt serving capacity of a firm. It is calculated using the relation EBIT/Interest. This relation indicates the times that interest on debt capital is covered by earning before interest and Taxes. For

instance, If ICR is 5 times, it denotes that the firm is able to pay interest on debt capital to the extern that current EBIT.

Therefore, greater the ICR, more safety from creditors viewpoint that their interest claim is fulfilled. Contrary to this lower ICR denotes the excessive use of debt with less profitability.

Table No. 4.4

Interest Coverage Ratio of Selected Commercial Banks

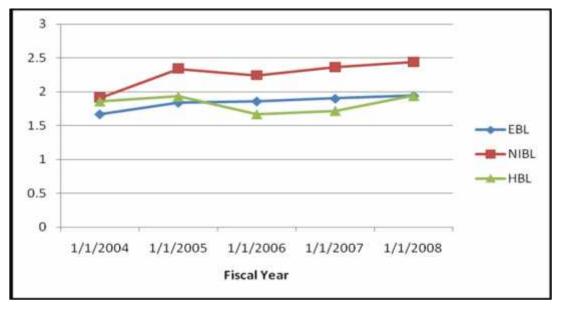
| Fiscal Year | EBL | % Change | NIBL | % Change | HBL | % Change |
|-------------|-------|-------------|-------|----------|-------|----------|
| 01/1/2004 | 1.94 | - | 2.44 | - | 1.94 | - |
| 01/1/2005 | 1.90 | 2.06 | 2.36 | 3.4 | 1.72 | 12.73 |
| 01/1/2006 | 1.86 | 2.18 | 2.24 | 5.5 | 1.67 | 3.13 |
| 01/1/2007 | 1.84 | 1.09 | 2.34 | 4.27 | 1.93 | 13.47 |
| 01/1/2008 | 1.67 | 10.18 | 1.91 | 17.59 | 1.86 | 3.76 |
| Average | 1.84 | | 2.27 | | 1.82 | |
| SD | 0.09 | | 0.19 | | 0.11 | |
| CV% | 5.03% | | 8.18% | | 6.05% | |

Source: Annual Report of Concern Banks

The above calculation of interest coverage ratio of three commercial bank shows that NIBL is a better position then the rest two. The average interest coverage ratio of EBL, NIBL and HBL are 1.84, 2.27 and 1.82 respectively. Everest bank and Himalayan Bank has the low interest paying capacity. SO from creditors view point Nepal Investment Bank is in better position and Himalayan and Everest Bank has excessive use of debt with less profitability. It is not a good sign for Himalayan and Everest Bank that it is using excessive debt and does not have the ability to offer sound interest like its competitors Banks.

Fluctuating ratios are taken high level of risk because C.V. measures the per unit risk. Here NIBL seems to be risky due to higher C.V than other.

Figure No. 4.4
Interest Coverage Ratio of Commercial Bank



The trend of the interest coverage ratio of the bank covered by this study period is positive. NIBL shows that interest coverage has been in upward 2005 and then decline and after then upward. HBL also shows that interest coverage has been upward till 2005 then decline and then after upward very slowly. EBL shows thank interest coverage ratio upward very slowly.

4.1.5 Analysis of EAT to Total Assets Ratio

This ratio is used for measuring the financial performance that shows the relationship between the earning after tax of the company and total assets. The Higher ratio shows the higher earning on the present level of profit of the Banks.

Table No 4.5 EAT to Total Assets Ratio

| Fiscal | EBL | %Change | NIBL | %Chang | HBL | % |
|-----------|---------|----------|-------|--------|--------|--------|
| Year | EDL | 70Change | NIDL | e | HDL | Change |
| 01/1/2004 | 0.020 | | 0.020 | 17.65 | 0.008 | 14.29 |
| 01/1/2005 | 0.016 | 25 | 0.017 | 6.25 | 0.007 | 16.67 |
| 01/1/2006 | 0.015 | 6.67 | 0.016 | 8.81 | 0.006 | 4.55 |
| 01/1/2007 | 0.015 | 0 | 0.134 | 21.82 | 0.011 | 10 |
| 01/1/2008 | 0.015 | 0 | 0.011 | | 0.01 | |
| Average | 0.162 | | 0.039 | | 0.0084 | |
| Tiverage | 0.102 | | 6 | | 0.0001 | |
| SD | 0.00193 | | 0.047 | | 0.0018 | |
| 35 | 9 | | 0.017 | | 5 | |
| CV% | 12.12 | | 119.4 | | 220.08 | |
| G V /0 | 12.12 | | 2 | | 220.00 | |

Source: Annual Report of Concern Banks

All the commercial Banks covered by this Nepal have low assets coverage capacity from their earning. How ever NIBL is in better position them the two Banks. The averages EAT to total asset of EBL, NIBL and HBL are 16.2, 3.96 and 0.84 percent respectively. From C.V. point of view NIBL has high C.V. percentage then other two banks. It shows that there is more.

Fluctuating ratios are taken high level of risk because C.V. measures the per unit risk.

Figure No. 4.5

0.16 0.14 0.12 0.1 0.08 0.06 0.04 0.04 0.02

1/1/2006

Fiscal Year

1/1/2007

1/1/2008

EAT to total Assets Ratio of Selected commercial Banks

The EAT to Total assets ratio trend analysis of the selected Banks shows that there is a high variation of the ratio among the Banks. NIBL seems to have diminishing ratio during the period indicating rising spending on assets while in the case of HBL there is a miner downward trend. Unlike the two EBL Bank seems to be investing less on assets over the years as the ratio inclines sharply during the period.

4.1.6 Analysis of Return on Capital Employed Ratio

0

1/1/2004

1/1/2005

The Return on capital employed indicates now well management has used the funds supplied by creditors and owners. Calculated as the ratio between net profit after tax and capital employed the higher the ratio, the more efficient the firm in using turned entrusted to it.

Table No. : 4.6
Capital Employed Ratio

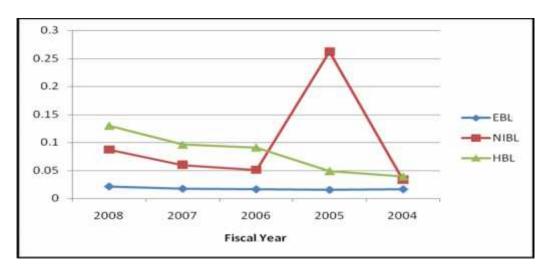
| Fiscal | EBL | % | NIBL | % | HBL | % Change |
|---------|--------|--------|--------|--------|-------|----------|
| Year | EDL | Change | NIDL | Change | пы | % Change |
| 2004 | 0.021 | | 0.087 | | 0.13 | |
| 2005 | 0.017 | 23.53 | 0.060 | 4.5 | 0.096 | 38.1 |
| 2006 | 0.016 | 6.25 | 0.051 | 17.65 | 0.091 | 5.49 |
| 2007 | 0.015 | 6.67 | 0.262 | 80.53 | 0.049 | 85.71 |
| 2008 | 0.016 | 6.67 | 0.033 | 693.94 | 0.039 | 2564 |
| Average | 0.017 | | 0.099 | | 0.081 | |
| SD | 0.0021 | | 0.0835 | | 0.033 | |
| CV% | 2.47% | | 84.72 | | 40.99 | |

Source: Annual Report of Concern Banks

The empirical data suggests Everest Bank is not in a better position in term of return on capital employed ratio. It has only 0.017 times the earning on employed capital. NIBL and HBL are in almost equal position in terms of return on capital employed based on C.V. There is high CV % of NIBL. Which indicates that the return on capital employed ratio are more fluctuating then other Banks and high CV denotes the high level of risk which is not good sign for NIBL. In comparison with other Banks.

Figure No. 4.6

Return on capital employed ratio of selected commercial Bank.



The trend shows Everest Bank has almost stable on return on its capital employed where as HBL has able to get sound return on its capital employed, it is get satisfactory. But the time trend of NIBL shows more fluctuating line over the period. This indicates that NIBL bear the high level of risk than other Banks.

4.1.7 Analysis of Return on Shareholders Equity

The return on equity measures the return earned on the owner's investment in the firm, higher ratio of return on equity is better for owners. This ratio includes preferred stock dividends in profit and preferred stocks value of the equity value, but the amount of preferred stock and its impact on the firm's position are generally low and negligible.

Table No. 4.7

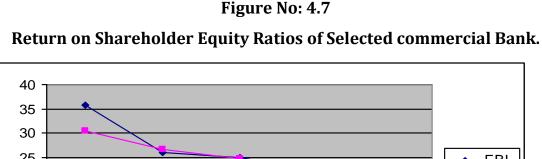
Return on shareholder Equity ratio of selected Bank

| Fiscal | EBL | EBL % Change NIBL % Change | | HBL | % Change | |
|---------|-------|----------------------------|-------|-----------|----------|-----------|
| Year | EDL | 70 Change | NIDL | 70 Change | IIDL | 70 Change |
| 2004 | 35.64 | - | 30.51 | - | 14.60 | - |
| 2005 | 25.91 | 37.28 | 26.66 | 14.43 | 14.15 | 3.14 |
| 2006 | 24.81 | 4.42 | 24.77 | 7.64 | 10.98 | 28.88 |
| 2007 | 22.19 | 11.81 | 19.67 | 25.93 | 12 | 8.5 |
| 2008 | 21.10 | 5.17 | 20.93 | 6.21 | 11.48 | 4.53 |
| Average | 25.93 | | 24.51 | | 12.64 | |

| SD | 5.15 | 3.92 | 1.4582 | |
|-----|-------|------|--------|--|
| CV% | 19.88 | 16 | 11.54 | |

Source: Annual Report of Concern Banks

Based on above calculation EBL and NIBL have good average return on shareholders equity then Himalayan Bank. The average ROE of EBL, NIBL and HBL are 25.93, 24.51 and 12.64 respectively. Here also Everest Bank is in good position than others two banks. It is giving 25.93 times return on shareholder on their investment on the other hand EBL taking high level of risk because its CV% is high. Where Himalayan Bank takes low level of risk. Therefore its average return is also less than others Bank.



25 -EBL 20 **NIBL HBL** 15 10 5 0 2004 2005 2006 2007 2008 Fiscal Year

Everest Bank and Nepal Investment Bank are able to maintain consistent upward ROSE ratio through out the year while Himalayan Bank ROSE ratio is in the declining trend. It shows that the owners of EBL and NIBL are in beneficial position. On the other hand there is not good sign for the owners of Himalayan Bank.

4.2. Statistical Analysis

4.2.1 Coefficient of Correlation Analysis

Co-efficient of co-relation shows the relationship between two or more than two variables. It measures that the two variables are positively or negatively co-related. For this purpose, Karl Pearson's co-efficient of correlation has been taken and applied to find out and analyze the relationship and also analyze the correlation of Total Debt to Total Assets and Interest Coverage Ratio, Debt to Equity ratio and Return in Total Assets, Total Debt to total Assets and Return on Total Assets of EBL, NIBL and HBL using Karl Persons coefficient of correlation, value of coefficient of determination (R²) probable error (P.Er.) and (6 P.Er.) are also calculated and value of them are analyzed.

A) Correlation Coefficient between Total Debt to Total Assets and Interest Coverage Ratio.

This ratio denotes structural relationship between total debt and total assets of a firm. Total debt is composed long-term debt and current liabilities. Total assets can also be calculated as total capital plus current liabilities. The interest coverage ratios calculate the debt serving capacity of a firm. It is calculated using the relation EBIT/Interest. This relation indicates the times that interest on debt capital is covered by earning before interest and Taxes. Under table no 4.8 presented correlation coefficient between total debt to total asset and interest coverage ration

Table No. 4.8

Correlation Coefficient between Total Debt to Total Assets and Interest

Coverage

| Name of Banks | Evaluation Criterions | | | | | | |
|---------------|-----------------------|----------------|--------|---------|---------------|--|--|
| | r | r ² | P.Er. | 6 P.Er. | Remarks | | |
| EBL | 0.7294 | 0.532 | 0.1412 | 0.0.848 | Significant | | |
| NIBL | 0.6786 | 0.461 | 0.1627 | 0.976 | Insignificant | | |
| HBL | -0.1581 | 0.025 | 0.2941 | 1.764 | Insignificant | | |

Source: through SPSS Data Editor

From the above table, it is found that coefficient of correlation between total debt to total asset and interest coverage ratio of EBL is 0.7294. Is shows the positive relationship between these two variables. It refers that total debt to total asset and interest coverage ratio of EBL move together very closely but not proportionately. Moreover, the coefficient of determination of EBL is 0.532. It means 53.2 percent of variation debt to total asset has been explained by interest similarly, the researcher has found the correlation coefficient is significant because the correlation coefficient is greater than the relative value of 6 P.Er. In other words, there is significant relationship between total debt to total asset and interest coverage ratio.

Likewise, the correlation coefficient between total debt to total asset and interest coverage ratio of NIBL is 0.6784. This indicates that there is positive correlation between these two variables of NIBL. Similarly, value of coefficient of determination is calculated as 0.461. It refers that 46.1 percent variance in total debt to total asset affected by and interest coverage ratio. Since the correlation coefficient is lower than 6 P.Er, the relationship between total asset and interest coverage ratio of NIBL is insignificant.

Similarly correlation coefficient between total debt to total asset and interest coverage ratio of HBL is -01581. This indicates that there is negative correlation between these two variables. The value of coefficient of determination (r²) is calculated as 0.025. It refers that only 2.5 percent variance in total debt to total asset affected by and interest coverage ratio. Since the correlation coefficient is lower than 6 P.Er, the relationship between total asset and interest coverage ratio of HBL is insignificant.

B. Correlation Coefficient between Debt to Equity ratio and Return in Total Assets

Debt Equity Ratios show the corporate contribution of creditors and owners in assets. High ratio shows a large share of financing by the creditors relatively to the owners. Return in total asset is used for measuring the financial performance that shows the relationship between the earning after tax of the company and total assets.

Table No. 4.9

Correlation Coefficient between Debt to Equity ratio and Return in Total

Assets

| Name of Banks | Evaluation Criterions | | | | | | |
|---------------|-----------------------|----------------|-------|---------|---------|--|--|
| | r | R ² | P.Er. | 6 P.Er. | Remarks | | |

| EBL | 0.6142 | 0.377 | 0.1879 | 1.127 | Insignificant |
|------|---------|-------|--------|-------|---------------|
| NIBL | -0.4878 | 0.238 | 0.2299 | 1.379 | Insignificant |
| HBL | -0.7245 | 0525 | 0.1433 | 0.859 | Insignificant |

Source: through SPSS Data Editor

From the above table, it is found that coefficient of correlation between Debt to Equity ratio and Return in Total Assets of EBL is 0.6142. Its shows the positive relationship between these two variables. It refers that Debt to Equity ratio and Return in Total Assets of EBL move together very closely but not proportionately. Moreover, the coefficient of determination of EBL is 0.377. It means 37.7 percent of variation debt to total asset has been explained by debt to equity. Similarly, the correlation coefficient is insignificant because the correlation coefficient is lower than the relative value of 6 P.Er. in other words, there is insignificant relationship between these veritable.

Likewise, the correlation coefficient between Debt to Equity ratio and Return in Total Assets of NIBL and HBL are-0.4878 and -0.7245. This indicates that there is negative correlation between these two variables of NIBL and HBL. Similarly, value of coefficient of determination (R²) is calculated as 0.2299 and 0.1433. It refers that 22.99 percent of NIBL and 14.33 percent variance in debt to equity affected by total asset. Since the correlation coefficient is lower than 6 P.Er, the relationship between two variable of NIBL and HBL is insignificant.

C. Correlation Coefficient between Total Debt to total Assets and Return on Total Assets

The total debt to total asset denotes structural relationship between total debt and total assets of a firm. Total debt is composed long-term debt and current liabilities. Total assets can also be calculated as total capital plus current liabilities. Return in total asset is used for measuring the financial performance that shows the relationship between the earning after tax of the company and total assets.

Table No. 4.10

Correlation Coefficient between Total Debt to Assets and Return on Total

Assets

| Name of | | Evaluation Criterions | | | | | |
|---------|--------|-----------------------|--------|---------|---------------|--|--|
| Banks | r | R ² | P.Er. | 6 P.Er. | Remarks | | |
| EBL | 0.9416 | 0.887 | 0.0342 | 0.1944 | Significant | | |
| NIBL | - | 0.220 | 0.2353 | 1.4118 | Insignificant | | |
| | 0.4691 | | | | | | |
| HBL | -0.62 | 0.384 | 0.1857 | 1.1142 | Insignificant | | |

Source: through SPSS Data Editor

From the above table, it is found that coefficient of correlation between Total Debt to total Assets and Return on Total Assets of EBL is 0.9416. Its shows the highly positive relationship between these two variables. It refers that total Debt to total asset and return on total asst of EBL move together very closely but not proportionately. Moreover, the coefficient of determination of EBL is 0.887. It means 88.7 percent of variation total debt to total asset has been explained by Total asset. Similarly, the correlation coefficient is significant because the correlation coefficient is higher than the relative value of 6 P.Er. in other words, there is significant relationship between these veritable.

Likewise, the correlation coefficient between Total Debt to total Assets and Return on Total Assets of NIBL and HBL are -0.4691 and -0.62. This indicates that there is negative correlation between these two variables of NIBL and HBL. Similarly, value of coefficient of determination is calculated as 0.220 and 0.384. It refers that 22.00 percent of NIBL and 38.4 percent variance in total debt to total asset affected by return on total asset. Since the correlation coefficient is lower than 6 P.Er, the relationship between two variable of NIBL and HBL is insignificant

4.2.2. Analysis of Variance (ANOVA)

ANOVA means statistical method for making simultaneous comparisons between two or more means; a statistical method that yields values that can be tested to determine whether a significant relation exists between variables

A. Analysis of Variance (ANOVA) of D/E Ratio

To measure either there is a significant difference between average debt and equity ratio within three banks or ANOVA test is concluded the result of ANOVA test is presented below.

Table No. 4.11
Analysis of variance of D/E Ratio

| Source of variation | SS | d.f. | MSS | F-ratio | F-criteria |
|---------------------|--------|---------|-------|---------|------------|
| Between Banks | 69.76 | 3-1=2 | 34.88 | 1.88 | 3.89 |
| With in Banks | 226.02 | 15-3=12 | 15.84 | | |
| Total | 295.78 | 15-1=14 | | | |

Source: Appendix -

1

Since calculated F is less than the tabulated F (calculated F < tabulated F i.e.1.88 < 3.89). There is no significant difference among the average debt to equity ratio. ANOVA table shows there was not significant difference in D/E ratio due to less than the tabulated F. This mean there is no sufficient evidence that the debt and equity has caused form the two independent variables. So, debt and equity is not significance with in three sampled commercial Banks for the last five years at 5% level of significance.

B. Analysis of variance (ANOVA) of Total Debt to Total Assets ratio

To measure either there is a significant difference between Total Debt and Total Assets ratio within three banks or ANOVA test is concluded The result of ANOVA test is presented below.

Table No. 4.12
Total Debt to Total Assets Ratio

| Source of variation | SS | df | MSS | F-ratio | F- criteria |
|---------------------|--------|----|--------|---------|-------------|
| Between Groups | 0.0078 | 2 | 0.0039 | 5.70 | 3.89 |
| With in Groups | 0.0082 | 12 | 0.0009 | | |
| Total | 0.016 | 14 | | | |

Since, calculated F > Tabulated F i.e. 5.7 > 3.89, so there is significant difference between average total debts to total assets ratio. ANOVA table shows there is significant difference in total debts to total assets ratio due to more than the tabulated F with in three commercial Banks at 5% level of significance.

C. Analysis of variance (ANOVA) of EBT to EBIT ratio

To measure either there is a significant difference between average debt and equity ratio within three banks or ANOVA test is concluded. The result of ANOVA test is presented below.

Table No. 4.13

Analysis of variance of EBT to EBIT ratio

| Source of variation | SS | df | MSS | F-ratio | F - Criteria |
|---------------------|--------|----|--------|---------|--------------|
| Between Groups | 0.0162 | 2 | 0.0081 | 1.59 | 3.89 |
| With in Groups | 0.0612 | 12 | 0.0051 | | |
| Total | | 14 | | | |

Source: Appendix -

3

Since calculated F is less than the tabulated F. There is no significant difference between EBT to EBIT ratio. ANOVA table shows there was not significant difference in EBT to EBIT ratio due to less than the tabulated value F. This mean there is no sufficient evidence that the EBT to EBIT ratio has caused form the two independent

variables. So, EBT to EBIT is not significance with in three sampled commercial Banks for the last five years at 5% level of significance.

D. Analysis variance (ANOVA) of Interest Coverage Ratio

To measure either there is a significant difference between interest coverage ratios within three banks or ANOVA test is concluded. The result of ANOVA test is presented below.

Table No. 4.14
Interest Coverage Ratio

| Source of variation | SS | d/f | MSS | F-ratio | F - criteria |
|---------------------|------|-----|-------|---------|--------------|
| Between Groups | 0.65 | 2 | 0.325 | 4.0625 | 3.89 |
| With in Groups | 0.91 | 12 | 0.08 | | |
| Total | | 14 | | | |

Source: Appendix -

4

Since calculated F is less than the tabulated F (calculated F > tabulated F i.e.4.0624 > 3.89). There is significant difference among t average interest coverage ratio. ANOVA table shows there was significant difference in average interest coverage ratio due to more than the tabulated F. So, average interest coverage ratio is significance with in three sampled commercial Banks for the last five years at 5% level of significance.

E. Analysis of variance (ANOVA) of EAT/TA ratio

To measure either there is a significant difference between Earning After Tax and Total Assets within three bank or ANOVA test is concluded The result of ANOVA test is presented below.

Table No 4.15
EAT/TA Ratio

| Source of variation | SS | d/f | MSS | F-ratio | F criteria |
|---------------------|----|-----|-----|---------|------------|

| Between Groups | 0.0026058 | 2 | 0.00130 | 1.40 | 3.89 |
|----------------|-----------|----|---------|------|------|
| With in Groups | 0.0112172 | 12 | 0.00093 | | |
| Total | | 14 | | | |

Since, calculated F < Tabulated F i.e. 1.4 < 3.89, so there is no significant difference between average EAT/Total assets ratio. ANOVA table shows there is no significant difference in total EAT/Total assets ratio due to less than the tabulated F with in three commercial Banks at 5% level of significance.

F. Analysis of variance (ANOVA) of ROCE

To measure either there is a significant difference between profit after tax and capital employed within three banks or ANOVA test is concluded. The result of ANOVA test is presented below.

Table No. 4.16
Analysis of Variance of ROCE Ratio

| Source of variation | SS | d/f | MSS | F-ratio | F criteria |
|---------------------|--------|-----|---------|---------|------------|
| Between Groups | 0.0189 | 2 | 0.00945 | 2.835 | 3.89 |
| With in Groups | 0.040 | 12 | 0.0033 | | |
| Total | 0.0589 | 14 | | | |

Source: Appendix -6

Since calculated F is less then Tabulated F (calculated F< Tabulated F), so there is no significant difference between average Return on capital employed ratio. ANOVA table shows there is no significant difference in total ROCE ratio due to less than the tabulated F with in three commercial Banks at 5% level of significance.

G. Analysis of variance (ANOVA) of ROSE.

The return on equity measures the return earned on the owner's investment in the firm, higher ratio of return on equity is better for owners. To measure either there is a significant difference between profit after tax and share holder equity within three bank or ANOVA test is concluded. The result of ANOVA test is presented below.

Table No: 17
Analysis of variance of ROSE

| Source of variation | SS | d/f | MSS | F-ratio | F criteria |
|---------------------|-----------|-----|--------|---------|------------|
| Between Groups | 532.32564 | 1 | 266.16 | 14.49 | 3.89 |
| With in Groups | 220.41996 | 12 | 18.97 | | |
| Total | 752.745 | 14 | | | |

7

Since calculated F is more than the tabulated F (calculated F < tabulated F i.e.14.49 < 3.89). There is significant difference among average Return on shareholder equity ratio. ANOVA table shows there is significant difference in average ROSE ratio due to more than the tabulated value of F. So, average ROSE is significance with in three sampled commercial Banks for the last five years at 5% level of significance.

4.2.3 Trend Analysis

Trend analysis plays an important role in the analysis and interpretation of financial statement. Trend in general terms, signifies a tendency. It helps in forecasting and planning future operation. Trend analysis is a statistical tool, which shows the previous trend of the financial performance and forecasts the future financial results of the firms.

A. Trend Analysis of Total Deposit:

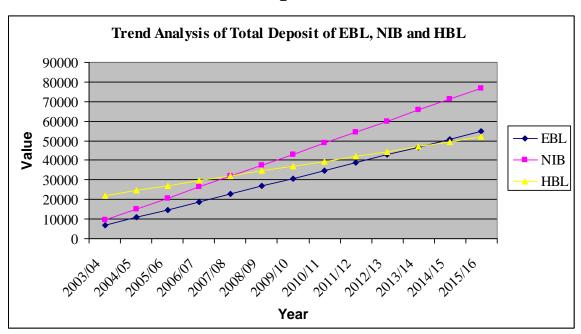
Deposits are the important part in banking sector hence its trend for next seven years will be forecasted for future analysis. This is calculated by the least square method. Here the effort has been made to calculate the trend values of Total deposit of EBL, NIB and HBL Bank Ltd for further eight year

Table No. 4.18

| Trend Analysis of Total Deposit of EBL, NIB and HBL | | | | | | |
|---|------|------|-------|--|--|--|
| Year(x) | EBL | NIB | HBL | | | |
| 2003/04 | 6842 | 9512 | 22061 | | | |

| 2004/05 | 10834 | 15121 | 24551 |
|---------|-------|-------|-------|
| 2005/06 | 14825 | 20730 | 27041 |
| 2006/07 | 18817 | 26338 | 29531 |
| 2007/08 | 22809 | 31947 | 32021 |
| 2008/09 | 26801 | 37556 | 34511 |
| 2009/10 | 30793 | 43165 | 37001 |
| 2010/11 | 34784 | 48774 | 39491 |
| 2011/12 | 38776 | 54382 | 41981 |
| 2012/13 | 42768 | 59991 | 44471 |
| 2013/14 | 46760 | 65600 | 46961 |
| 2014/15 | 50752 | 71209 | 49451 |
| 2015/16 | 54743 | 76818 | 51941 |

Figure No 4.8



Above table and figure shows that total deposit of EBL, NIB and HBL Bank Ltd. all the bank has increasing trend of total deposit. The rate of increment of total deposit of NIB seems to be higher than EBL and HBL. The increasing trend of total deposit of NIB is more aggressive. It indicates that NIB has more prospect of collecting Total deposit. The trend of increasing value of deposit of EBL is average and moderate and

the value of deposit of HBL is lower than of two banks NIB and EBL. The trend analysis has projected deposit amount in fiscal year FY 2008/09 to FY 2015/16. From the above trend analysis, it is clear that NIB has higher position in collecting deposit EBL average and HBL has lower.

B. Trend Analysis of Net Profit

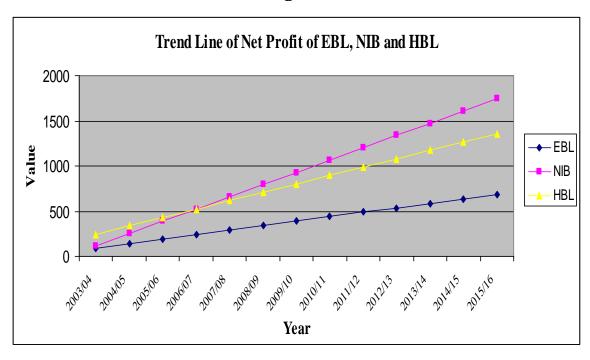
Here, the trend values of net profit of EBL NIB and HBL have been calculated for five years FY 2003/04 to FY 2007/08 and forecasting for the next eight year till FY 20015/16.

Table No. 4.19

| Trend Analysis of Net Profit of EBL, NIB and HBL | | | | | | |
|--|---------|---------|----------|--|--|--|
| Year(x) | EBL | NIB | HBL | | | |
| 2003/04 | 88.838 | 115.222 | 245.46 | | | |
| 2004/05 | 138.654 | 250.959 | 338.378 | | | |
| 2005/06 | 188.47 | 386.696 | 431.296 | | | |
| 2006/07 | 238.286 | 522.433 | 524.214 | | | |
| 2007/08 | 288.102 | 658.17 | 617.132 | | | |
| 2008/09 | 337.918 | 793.907 | 710.05 | | | |
| 2009/10 | 387.734 | 929.644 | 802.968 | | | |
| 2010/11 | 437.55 | 1065.38 | 895.886 | | | |
| 2011/12 | 487.366 | 1201.12 | 988.804 | | | |
| 2012/13 | 537.182 | 1336.86 | 1081.722 | | | |
| 2013/14 | 586.998 | 1472.59 | 1174.64 | | | |
| 2014/15 | 636.814 | 1608.33 | 1267.558 | | | |
| 2015/16 | 686.63 | 1744.07 | 1360.476 | | | |

Source: Source: Appendix - 9

Figure No 4.9



The above table reveals the trend of Net profit of EBL, NIB and HBL. Net profit of all sample banks forecasted in increasing trend. The trend of increasing value of net profit of NIB is higher and aggressive. The trend of increasing value of net profit of HBL is average and moderate and the trend of increasing value of net profit of EBL is lowe than of two banks NIB and HBL. The net profit of EBL, NIB and HBL has been increasing every year by Rs.49.816 million, Rs. 135.737 million and Rs 92.918 million respectively. The trend of Net profit projected to FY 2015/16 i.e. further Eight year. Above statistics shows that all the sample banks have inconsistent net profit throughout the study period. In conclusion, NIB is doing better in order to generate net profit during the projected study period and HBL takes second place. The EBL has low level of increasing trend of net profit.

4.3 Major Finding of the Study

On the basis of the analysis of the data following findings can be made.

Financial Background

- 1. Nepal investment bank has the highest amount of average debt ratio in comparison to two other banks. Higher debt to equity ratio is observed for all the banks under this study. NIBL has the highest C.V. percentage which indicates that its risk is more than other two banks
- 2. The D/E ratio of Everest bank is in gradually increasing trend over the period. NIBL and HBL D/E ratio trend is decreasing up to 2005 and then gradually start to increase.
- 3. Debts to total Assets ratio of three commercial banks are almost the same. It means that there is similar claim of creditors in assets of these banks. Everest banks TD/TA ratio is also consistent till 2007 than after increasing trend. NIBL and HBL banks TD/TA ratio is in increasing form.
- 4. The average EBT/EBIT ratio in the selected banks over the period covered shows EBT having an average 0.49 times greater interest change then the operating profit of the banks. On the other hand NIBL and HBL have 0.56 and

- 0.54 times respectively greater interest change them the operating profit of the Banks.
- 5. The Chart trend of EBT to EBIT ratio between EBL and HBL is in an Ascending order as the year progresses. However NIBL shows a small declination in 2006 then after start to upward.
- 6. All the Banks covered by the report have similar kind of Assets coverage capacity from their earning However NIBL has slightly higher ratio of EAT to total assets then two banks. This shows that it has the higher earning on the present level of profit of the bank.
- 7. Among the three commercial banks NIBL has been able to have the highest ratio in 2005, where as EBL and HBL banks trend of EAT/TA ratio are almost consistent over the five years period.
- 8. The calculated data suggests EBL is not in a better position in terms of return on capital employed ratio / It has only 0.017 times the earning on employed capital. NIBL and HBL are in almost equal position in terms of ROCE. Based on CV there is high cv% on NIBL. Which indicates that the ROCE ratio are more fluctuating then other banks, and high cv denotes the high level of risk which is not good sign.
- 9. The trend shows EBL has almost stable value on return its capital employed where as HBL has able to get sound return on capital employed but the trend of NIBL shows more fluctuating lines over the period this indicates that NIBL bear the high level of risk than other banks.
- 10. The empirical data above indicates that average return on shareholders equity ratio is satisfactory in all the three banks and is highest in EBL. So this bank enjoys comparatively better position than NIBL and HBL.
- 11. The study shows that among the three bank EBL Shareholder are enjoying the highest return on its equity .NIBL are getting good return but HBL trend is downwards in 2006 than Upward

Statistical Analysis

- 12. The coefficient of correlation between total debt to total asset and interest coverage ratio of EBL positive i.e. 0.7294. There is significant relationship between total debt to total asset and interest coverage ratio. Likewise, the correlation coefficient between total debt to total asset and interest coverage ratio of NIBL is 0.6784. the relationship between total asset and interest coverage ratio of NIBL is insignificant. Similarly correlation coefficient between total debt to total asset and interest coverage ratio of HBL negative i.e. -01581 Since the correlation coefficient is lower than 6 P.Er, the relationship between total asset and interest coverage ratio of HBL is insignificant.
- 13. The coefficient of correlation between Debt to Equity ratio and Return in Total Assets of EBL is 0.6142. Its shows the positive relationship between these two variables. It means 37.7 percent of variation debt to total asset has been explained by debt to equity. Similarly, the correlation coefficient is insignificant Likewise, the correlation coefficient between Debt to Equity ratio and Return in Total Assets of NIBL and HBL are negative i.e. -0.4878 and -0.7245. This indicates that there is negative correlation between these two variables of NIBL and HBL. Since the correlation coefficient is lower than 6 P.Er, the relationship between two variable of NIBL and HBL is insignificant.
- 14. The coefficient of correlation between Total Debt to total Assets and Return on Total Assets of EBL is positive 0.9416. The coefficient of determination of EBL is 0.887. the correlation coefficient is significant. Likewise, the correlation coefficient between Total Debt to total Assets and Return on Total Assets of NIBL and HBL are -0.4691 and -0.62. There is negative correlation between these two variables of NIBL and HBL. The correlation coefficient is lower than 6 P.Er, the relationship between two variable of NIBL and HBL is insignificant
- 15. The analysis of variance of debt equity ratio among the banks shows that there is no significant difference between them under the study period at five percentage level of significance.

- 16. Analysis of variance indicates that there is significant difference of average total debt to total assets ratio with in three samples of commercial banks for the last five years.
- 17. From ANOVA calculation there is no significant difference among the average EBT/EBIT ratio with in three commercial banks for the last five years.
- 18. Since calculated F is greater then Tabulated R so there is significant difference among the average interest coverage ratio with in three samples of commercial banks for the last five years.
- 19. The analysis of Variance of EAT to Total Assets ratio indicates that there is no significant difference among the average EAT/TA ratio with in three commercial Banks for the last five years.
- 20. Analysis of Variance shows that there is no significance difference among the average return on capital ratio with in three sampled commercial banks for the last five years. It indicates that the average returns of capital employed ratio of the banks are similar in pattern.
- 21.ANOVA shows that there is significant difference between return on shareholders equity ratio among three commercial Banks.
- 22. The trend of Total deposit of EBL, NIB and HBL banks forecasted in increasing trend. The increasing trend of total deposit of NIB is more aggressive. The trend of increasing value of deposit of EBL is average and moderate and the value of deposit of HBL is lower than of two banks NIB and EBL.
- 23. The trend of Net profit of EBL, NIB and HBL banks forecasted in increasing trend. The trend of increasing value of net profit of NIB is higher and aggressive. The trend of increasing value of net profit of HBL is average and moderate and the trend of increasing value of net profit of EBL is lower than of two banks NIB and HBL. The net profit of EBL, NIB and HBL has been increasing every year by Rs.49.816 million, Rs. 135.737 million and Rs 92.918 million respectively.

CHAPTER - V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

This research is concerned with the study of capital structure management of three selected commercial joint venture bank via, Everest bank Ltd. Nepal Investment bank Ltd and Himalayan bank Ltd. The term capital structure refers to the long-term funds like debt and equity. The capital structure, which leads to the maximum value and minimum cost of optimal capital structure.

The researcher has identified that research problem and set objectives to solve research problems about capital structure of selected commercial banks as described in introduction chapter. To make this study more effective, related literatures have been reviewed. The review of literature provides the foundation of knowledge in order to under take this research more precisely. This section also includes concept of banking, commercial banks, joint venture banks, investment and investment policy.

Research methodology has been described in third chapter, which is a way to solve the research problems with the help of various tools and techniques. This chapter includes the various financial as well as statistical tools to analyze the data in order to come to the decisions. This chapter includes the research design, population and sample data collection procedure, data period covered and methods of analysis. This study is mainly conducted on the basis of secondary data collected from annual reports, official report, economic journal, financial statement etc. and authorize web site of Nepal stock exchange, www.nepalstock.com. The five years financial statement has been examined for the purpose of the study.

The presentation and analysis of data has been made comparative analytical and their interpretation has done in chapter four by applying the wide varieties of methodology as stated in chapter three. It includes the various financial and statistical tools. In case of financial tools ratio analysis is done which consists liquidity ratio, assets management ratio, profitability ratio, risk ratio, growth position and other ratios. Other ratio includes EPS, DPS and P.E. ratio. Various statistical tools such as arithmetic mean, standard deviation, coefficient of correlation, trend analysis, test of hypothesis (t-test) and regression analysis have been applied to fulfill the objective of this study. The major findings of the study are also included in the final section of the presentation and analysis chapter.

5.2 Conclusions:

Thus this research is conducted with the major objective of highlighting capital structure management of three commercial joint venture banks. The observation and conclusion is:

- 1. Derived by analyzing capital structure position in term of debt to shareholder's equity. There make analyze the capital structure in terms of debt and equity position, profitability position and asset management position of commercial banks, sources and uses of funds, interest coverage and other relevant financial ratios. This has helped to reach conclusion and provide workable solution for the capital structure management of selected banks.
- 2. The three banks Nepal investment bank has the highest amount of average debt ratio in comparison to two other banks. The D/E ratio of Everest bank is in gradually increasing trend over the period. NIBL and HBL D/E ratio trend is decreasing up to 2005 and then gradually start to increase.
- 3. Debts to total Assets ratio of three commercial banks are almost the same. It means that there is similar claim of creditors in assets of these banks. The average EBT/EBIT ratio in the selected banks over the period covered shows EBT having an average 0.49 times greater interest change then the operating profit of the banks. NIBL and HBL have 0.56 and 0.54 times respectively.

- 4. All the Banks covered by the report have similar kind of Assets coverage capacity from their earning However NIBL has slightly higher ratio of EAT to total assets then two banks. NIBL has been able to have the highest ratio in 2005, where as EBL and HBL banks trend of EAT/TA ratio are almost consistent over the five years period.
- 5. The calculated data suggests EBL is not in a better position in terms of return on capital employed ratio. NIBL and HBL are in almost equal position in terms of ROCE. The trend shows EBL has almost stable value on return its capital employed where as HBL has able to get sound return on capital employed but the trend of NIBL shows more fluctuating lines over the period this indicates that NIBL bear the high level of risk than other banks.
- 6. The average return on shareholders equity ratio is satisfactory in all the three banks and is highest in EBL. So this bank enjoys comparatively better position than NIBL and HBL.
- 7. The coefficient of correlation between total debt to total asset and interest coverage ratio of EBL positive i.e.0.7294. Likewise, the correlation coefficient between total debt to total asset and interest coverage ratio of NIBL is 0.6784. Similarly correlation coefficient between total debt to total asset and interest coverage ratio of HBL negative the relationship between total asset and interest coverage ratio of NIBL and HBL are is insignificant.
- 8. The coefficient of correlation between Debt to Equity ratio and Return in Total Assets of EBL is 0.6142. Similarly, the correlation coefficient is insignificant Likewise, the correlation coefficient between Debt to Equity ratio and Return in Total Assets of NIBL and HBL are negative i.e. -0.4878 and -0.7245. Since the

- correlation coefficient is lower than 6 P.Er, the relationship between two variable of NIBL and HBL is insignificant.
- 9. The coefficient of correlation between Total Debt to total Assets and Return on Total Assets of EBL is positive 0.9416 and NIBL and HBL are negative i. e. -0.4691 and -0.62. The correlation coefficient is lower than 6 P.Er, the relationship between two variable of NIBL and HBL is insignificant
- 10. The analysis of variance of debt equity ratio among the banks shows that there is no significant difference between them under the study period at five percentage level of significance. There is significant difference of average total debt to total assets ratio with in three samples of commercial banks for the last five years. There is no significant difference among the average EBT/EBIT ratio.
- 11. The analysis of Variance of EAT to Total Assets ratio indicates that there is no significant difference among the average EATS/TA ratio. There is no significance difference among the average return on capital ratio with in three sampled commercial banks for the last five years. ANOVA shows that there is significant difference between return on shareholders equity ratio among three commercial Banks at 5 % level of significant.
- 12. The trend of Total deposit of EBL, NIB and HBL banks forecasted in increasing trend. The trend of increasing value of deposit of NIB is high and aggressive, EBL is average and moderate and the value of deposit of HBL is lower. The trend of Net profit of EBL, NIB and HBL banks forecasted in increasing trend.
- 13. The trend of increasing value of net profit of NIB is higher and aggressive. The trend of increasing value of net profit of HBL is average and moderate and the trend of increasing value of net profit of EBL is lower than of two banks NIB and

HBL. The net profit of EBL, NIB and HBL has been increasing every year by Rs.49.816 million, Rs. 135.737 million and Rs 92.918 million respectively.

- **14.** The growth is still on as so many new banks are coming into existence after this study. So the samples are operating with higher technology and new efficient methods in banking sector. But this study has been undertaking only three banks viz Everest Bank Ltd, Nepal Investment Bank Ltd and Himalayan Bank Ltd.
- **15.** To examine and evaluate the financial data. Besides, latest financial statement of last year from 2004 to 2008 has been conferred for the purpose of the study. This study has been mainly conducted on the basis of secondary data that are processed and analyzed.

5.3 Recommendations

The banks performance can be seen by various ways. Different analysis gives different recommendation and suggestion to the bank. On the basis of above analysis and descriptions the recommendations have been made for this origination.

- 1. As there is no rule of thumb regarding proportion of debt to equity, it is suggested to take 1:1 ratio to bring improvement in the capital structure. From this point of view, it is suggested to reduce level debt gradually by increasing the level of equity in future years to compensate the capital of debt. Again it is suggested to reduce debt in NIBL and minimize the level of debt in procurement of the assets.
- 2. Low debt assets ratios, from the debtor's point of view, is considered to be significant that they receive a cushion of protection against possible losses at the time of equity in comparison to debt. However, form the firm's management point of view; the low debt ratio is not able to get leverage advantages. So, it is suggested to balance debt to optimize capital structure.

- 3. Additionally banks are required and recommended to expand assets and branches, which ultimately affect the banks capital structure and expected to increase the profitability more then the present. So, all sample banks are recommended to expand branches by covering all the five development regions of the country including rural areas to achieve geographically balanced approach.
- 4. It is also recommended to maintain assets from sources other than the cost of debt.
- 5. The higher expenses in the banks are due to the higher operating expenses, such as administrative and other expenses. So necessary action is to be taken to bring the reduction on these expenses.
- 6. It is also suggested to bear low risk so that additional return on capital and equity could be realized. This is essential from investor' attraction point of view.
- 7. These banks are listed under group" A" by "NEPSE. The analysis of capital structure is very significant in project appraisal of the stiff competition.
- 8. In conclusion derived from finding of study Banks have lack of theoretical and practical knowledge with regard to capital structure theories. The banks are suggested to open their doors to the small depositors and entrepreneurs also.
- 9. Sample bank are suggested to play the role of financial intermediary and merchant bank like underwriting of securities, brokers development of capital market and supportive role to the security exchange center which will consequently be helpful for the enlistment of nation. Similarly, they are

basically not concentrated to mobilize their deposit founds in productive areas.

10. The banks should gives continuity in providing both conceptual and practical training to the staff to enhance their knowledge, skill and competency level, they should remain consistently vigilant in enhancing their more and motivation. The bank has to enhance effectiveness, efficiency and proper coordination of its departmental takes by continuously reviewing its structural design in accordance with the need to the changing time and situation.

Hence, the researcher suggests for the further study on the mention grounds which the study couldn't cover. Again the researcher looks forward for the further research on the field of capital structure which might be helpful for the listed companies, the government, the stock market and the other interested group also. The researcher feels that the present study might be helpful for those interested group in the field of capital structure.

BIBLIOGRAPHY

Books

- ❖ Asch, David and Kaye, G. Ronald (1996). Financial Planning. 2nd Edition, CIMA Kogan Page Ltd.
- ❖Bajracharya, B. C. (2000). Business Statistics and Mathematics. Kathmandu: M. K. Publishers and Distributors,
- Brigham, E.F., L.C. Gapenski and M.C. Ehrhardt (1999). Financial Management.. Singapore: Harcourt Asia.
- Copeland, T. E., and Weston, J. F. (1992). Financial Theory and Corporate Policy. New York: Addison-Wesley Publishing Company.
- Gustavsson, Michael & Svernlöv, Magnus (1994).
 Ekonomi & Kalkyler. Liber-Hermods, Oslo.
- ❖ Hampton, J.J. (2002). Financial Decision Making Concept Problem and Cause. Prentice Hall of India.
- Helfert, Erich A. (1997). Techniques of Financial Analysis: A Modern Approach.9th Edition, Times Mirror Higher Education Group, Inc. Company.

- Horne, J.C. Van (1998). Financial Management and Policy. 10th Edition, Prentice Hall of India.
- ❖ Joshi, P. R. (2001). Research Methodology. 1st Edition, Kathmandu: Buddha Academic Enterprises Pvt. Ltd.
- ❖ Khan, M.Y., and Jain P.K. (2000). Financial Management. NewDelhi: Tata McGraw Hill, Publishing Co. Ltd.
- ❖Kothari, C.R. (1990). Research Methodology: Methods and Techniques. 2ndEdition, New Delhi: Wishwa Prakashan.
- Megginson, William L. (1997). Corporate Finance Theory. Addison- Wesley Educational Publishers.
- ❖Pandey, I.M. (1995). Financial Management. 7th Revised Edition, New Delhi: Vikash Publishing House Pvt. Ltd..
- ❖Pradhan, Surendra (1992). Basics of Financial Management. 1st Edition, Kathmandu: Educational Enterprise (p.) Ltd.

- ❖Sharma, P.K. and Chaudhary, A.K. (2058).

 Statistical Methods. 1st Edition, Kathmandu:

 Khanal Books Prakashan.
- ❖Tracy, Johan A. (1996). Fast Forwarded MBA in Finance. John Wiley & Sons Inc. USA.
- Weston, Fred J. & Brigham, E. F. (1990). Essentials of Managerial Finance. 9th edition, Florida: The Dryden Press.
- Wolf, H.K. and Pant, P.R. (2005). Social Science Research and Thesis Writing. 4th Edition, Kathmandu: Buddha Academic Enterprises Pvt. Ltd.

❖Article and Journal

- ❖Biais, Bruno and Casamatta, Catherine (1999). Optimal Leverage and Aggregate Investment. The Journal of Finance, 54 August, pp.1291-1323.
- Donaldson, G. (1961). Corporate Debt Capacity: A Study of Corporate Debt Policy and the Determination of Corporate Debt Capacity. Boston:

- Division of Research, Harvard School of Business Administration.
- Eriksson, M. and Hede, J. (1999). Optimal Capital Structure - A case study of three real estate companies. Graduate Business School, School of Economics and Commercial Law, Göteborg University, ISSN.
- ❖ Hatfield, G. B.; Cheng, Louis T.W. and Davidson, W. N. (1994). The Determination of Optimal Capital Structure: The Effect of Firm and Industry Debt ratios on Market Value. Journal of Financial and Strategic Decisions, Vol.7, No.3.
- ❖ Fama, E., and K. French (2000). Testing Tradeoff and Pecking Order Predictions about Dividends and Debt. Review of Financial Studies, Vol. 15, pp. 1-33.
- Gaud, P., E. Jani, M. Hoesli and A. Bender (2005).
 The Capital Structure of Swiss Companies: An Empirical Analysis using Dynamic Panel Data.

- European Financial Management, Vol. 11, pp. 51-69.
- ❖ Modigliani, F. and M.H. Miller (1995). Corporate Income Taxes and the Cost of Capital: A Correction. American Economic Review, Vol. 53, pp. 433–443.
- Ozkan, A. (2001). Determinants of Capital Structure and Adjustment to Long Run Target: Evidence from UK Company Panel Data. Journal of Business Finance and Accounting, Vol. 28, pp. 175-198.
- Prowse, S.D. (1991). Institutional Investment Patterns and Corporate Financial Behavior in the U.S. and Japan. Journal of Financial Economics, New York
- ❖Rajan, R. and L. Zingales (1995). What Do We Know about Capital Structure? Some Evidence from International Data. Journal of Finance, Vol. 50, pp. 1421-1460.
- ❖Ross, S.A. (1977). The Determination of Financial Structure: The Incentive Signaling Approach. Bell Journal of Economics, Vol. 8, pp. 23-40.

❖Shrestha, M. K. (1995). Analysis of Capital Structure in Selected public enterprises. Prasasan, The Nepalese Journal of Public Administration, Year 16, vol.2 (42nd issue), Kathmandu.

Previous Thesis

- ❖Baral Santosh (2004). Capital structure and cost of capital in public sector enterprises in Nepal. An unpublished Master Degree Thesis, Central Department of Management, T.U. Kathmandu.
- Dhungana, Chudamani (2000). A study on capital structure of Nepalese hotels. An unpublished Master Degree Thesis, Central Department of Management, T.U. Kathmandu.
- ❖ Gajurel, Dinesh P. (2005). Capital Structure Management in Nepalese Enterprises. An unpublished Master Degree Thesis, Central Department of Management, T.U. Kathmandu.
- ❖Giri, Gautam Raj (2006). Capital Structure Management of Listed Joint Venture Commercial

- Banks. An unpublished Master Degree Thesis, Shanker Dev Campus, Faculty of Management, T.U. Kathmandu.
- Limbu Parash (2008). A comparative study on capital structure between Butwal Spinning Mills and Jyoti Spinning Mills Limited". An unpublished Master Degree Thesis, Central Department of Management, T.U. Kathmandu.
- Mahato, Ramnath (2005). Capital Structure and Cost of Capital: An Empirical Study of Nepalese Enterprises. An unpublished Master Degree Thesis, Central Department of Management, T.U. Kathmandu.
- Sapkota, Ramesh. (2002). A Study of Capital and Assets Structure Management of Nepal Bank of Ceylon. An unpublished Master Degree Thesis, Central Department of Management, T.U. Kathmandu.
- ❖ Singh Sunil (2007). The Capital Structure decision and it's Impact on Risk and Return of Hulas Steel

Industries Pvt. Ltd. An unpublished Master Degree Thesis, Central Department of Management, T.U. Kathmandu

Websites:

www.Everestbank.com
www.nibl.com
www.himalayanbank.com