CHAPTER - 1
INTRODUCTION

1.1 General Background

The Importance of financial sector in general and banking sector in particular in any economy cannot be undermined. Financial institution includes banks, finance companies, co-operative organization and insurance companies. Financial institutions play a major role in the proper functioning of an economy. These institutions act as an intermediary between the individuals who lend and who borrow. These institutions accept deposits and in turn lend it to people who are in need of financial resources. These institutions make the flow of investment easier. So we cannot deny the role a bank plays in developing an economy. It pools the funds scattered in the economy and mobilizes them to the productive sector. But these institutions inherent a large amount of risk, which cannot be, denied either. If a bank behaves irresponsibility, the costs borne by the economy are enormous.

Banking industries is also regards as important component of economy. A Bank is an institution which collects money from those who have it spare or who are saving it out of their income and lends this out to those who require it. Bank is important to relieve people from financial exploitation. Banks are also needed to develop industry and commerce, for economic development; to provide security of valuable goods and property, to transfer funds, to create employment and skilled entrepreneurship, to develop habit of saving, to develop agricultural and backward areas, to balance economic development as a whole etc. According to their functions Banks are divided into various types. They are Central Bank, Commercial Bank, Agricultural Development Bank, Industrial Bank, Saving Bank, Exchange Bank, Indigenous Bank, Rural Development Bank.

The present structure of financial institutions is base on the foundation laid by commercial banks. The commercial banks command the highest share of national resources, which must be utilized for the rapid economic development of the company.

Commercial Banks are one of the vital aspects of banking sector, which deals in the process of channeling the available resources in the needed sectors. It is the intermediary between the deficit and surplus of financial resources. Commercial Banks are state as key component of the financial institution. They can play vital role in accelerating the pace of economic development of the through the mobilization of the scattered saving and channeling it in the real sector of the economy. Besides that, Commercial Banks grant business loan on the basis of proposal and also grant traditional loan with the guarantee of valuables i.e gold and silvers.

As a financial institution In Nepal, Commercial Bank's history is of more than 6 decades. The first ever bank in Nepal, Nepal Bank Ltd was established in 1994 B.S in initiation of Udhyog Parishad and this is the first ever financial institution established in Nepal as well. However, NBB still giving contribution to bring country towards industrialization. After establishment of first commercial bank, Nepal Rastra Bank (NRB) was established in 2013 B.S as a Central Bank and took responsibility of establishment and development of commercial bank in Nepal. In 2022 B.S second commercial bank RBB was established. Various branches in various times were open by these two banks. And after two decades of establishment of RBB, Joint venture bank Nabil bank was established in 2040 B.S. then after commercial banks were established with joint stocks and increasing tremendously. However, we can say that the development of commercial banks in 6 decades history is very much satisfactory.

At present there are altogether 25 Commercial Banks operating in the country among which Nepal Bank Limited (NBL) and Rastriya Banjiya Bank (RBB) has occupied wide range of the business. Slowly private Banks are also initiating to move toward every corner of the country but due to prevailing political crisis they are not being able to meet their objective to reach to every corner of the country. Due to increasing competition banks are forced to innovate new products to their customer and they are also shifting from traditional service procedure to various sophisticated services like Automatic Teller Machine (ATM) card, debit card , credit card, housing loan, education loans, vehicle financing.

Capital structure is very crucial part of the financial management as the various composition of debt and equity capital may impact differently on risk and rate of return to equity shareholders. The funds required to business enterprises are raised

either through the ownership securities (i.e equity shares and preference shares) and creditor shares (i.e. debentures or bonds). A business enterprise has to maintain proper mix of both the securities in a manner that the cost and the risk perception to the shareholders are minimized. The mix of different securities is portrayed by the firm's capital structure (Koirala, 1990).

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

Capital structure is considered as the mix of debt and equity and to operate in long run prospect. A firm must concentrate in its proportion. A firm can raise required fund by issuing various types of financial instruments. Investors and creditors being the key supply of capital, they hold greater degree of risk and hence have claims over firm's assets and cash flow. Similarly debt holders are also a sources of financing fund and they have risk considering firm's cash flow is uncertain and there is probability that it may default in it's obligations to pay off it's interest and principle. In the other hand, if a firm issue preference share, those shareholders have the priority in payment of dividend before common shareholders but after debt holders. Since the percentage of preference dividend is fixed as the percentage of interest to debt, it is preferably paid off only after interest payment. Common shareholders as are the owner of the firm; they are paid from cash remaining after all payment is being made. Since the common share i.e. equity fluctuate in the market more than the preference share and debt, there is more risk.

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

Capital structure concept has important place in financial management theory. It is basically known as financial structure, financial plan or leverage. Financing decision of a firm, as the other financial decision, is concerned with shareholders wealth maximization. As capital structure refers to the proportion of debt and equity, a

choice in proportion is actually financial decision in case to fulfill investment requirement. Therefore, it is a wise decision to select a financing mix, which maximizes shareholders wealth.

1.2 Profile of Sample Banks

History of banking in Nepal in the true sense started in the year 1994 BS with the establishment of Nepal Bank Limited, Nepal's first commercial bank, established as a joint venture between the government and private individuals. Now there are altogether 25 listed commercial banks in our country. Among them we select there banks for our study.

1.2.1 Nabil Bank Limited (NBL)

Nabil Bank Limited (erstwhile Nepal Arab Bank Limited) was established on July 12th 1984 under a technical service agreement with Dubai Bank Limited, Dubai, which was later merged with Emirates Bank Ltd., Dubai. Nabil Bank is the first and major joint venture bank in the country with key points of representation all over the Kingdom of Nepal. The Bank is managed by a team of qualified and highly experienced professionals. 50% share is owned by N.B. International Limited, Ireland, 20% is hold by and remaining 30% is hold by the Nepalese public.

Today Nabil stands in a position to claim that it is the "Bank of 1st Choice" to all its stakeholders. In the span of 23 years, it has already distributed Rs. 2.86 billion cash dividend and the wealth of the shareholders of the Bank grew to Rs. 24.8 billion as at mid July 2007. Spectacular return on assets and return on equity even during a turbulent and competitive time highlight the inherent strength of the Bank.

The Bank provides a complete range of consumer, retail, SME and corporate banking services through its offices spread across the country. Nabil is the sole banker to a multitude of large corporate, international aid agencies, NGOs and embassies. It is the largest private bank in the country in terms of branch and ATM network. All its branches are interconnected on real time basis. On the technological front, the Bank has earned a reputation in providing an array of card products and Internet / Tele banking facilities besides ATMs and Any Branch Banking Service.

The statement 'Your Bank at Your Service' that the Bank holds on firmly is a resemblance that the Bank's stakeholders are at the core of everything it does. As for the culture embraced by the entire Nabil team, a set of Values, referred to as 'C.R.I.S.P.' in short, represents the fact that the bank uninterruptedly strives to be Customer Focused, Result Oriented, Innovative, Synergistic and Professional. By living these Values, individually as professionals and collectively as a Team, Nabil Bank is committed to Surge Ahead to continue to be the Bank of 1st Choice in Nepal.

1.2.2 Nepal Investment Bank Limited (NIBL)

Nepal Investment Bank ltd. (NIBL), previously 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) was Credit Agricole Indosuez, a subsidiary of one the largest banking groups in the world. With the decision of Credit Agricole Indosuez to divest, a group of companies comprising of bankers, professionals, industrialists and businessmen, in April 2002, acquired 50% of the holdings of Credit Agricole Indosuez in Nepal Indosuez Bank. The name of the bank was changed to Nepal Investment Bank ltd. upon approval of the Bank's Annual General Meeting, Nepal Rastra Bank and Company Registrar's office.

The shareholding structure comprises of:

- A group of companies holding 50% of the Capital
- Rastriya Banijya Bank holding 15% of the Capital.
- Rastriya Beema Sansthan holding 15% of the Capital.
- The general public holding 20% of the Capital.

1.2.3 Himalayan Bank Limited (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. It is the first commercial bank of Nepal with maximum share holding by the Nepalese private sector. Besides commercial activities, the Bank also offers industrial and merchant banking.

Himalayan Bank's policy is to extend quality and personalized service to its customers as promptly as possible. All customers are treated with utmost courtesy as valued clients. The Bank, as far as possible, offers tailor made facilities to its clients, based on the unique needs and requirements. To extend more efficient services to its

customers, Himalayan Bank has been adopting innovative and latest banking technology. This has not only helped the Bank to constantly improve its service level but has also kept it prepared for future adaptation of new technology. Himalayan Bank is committed to be a "BANKING WITH A DIFFERENCE"

1.3 Focus of the Study

Capital is the most important factor from beginning of the business organization. Lack of the capital, the business organization cannot operate regularly their daily activities. The success of business organization depends upon proper composition of debt equity in the capital structure. The proper composition of debt equity helps to generate high return to the business organization and helps in long-term solvency.

Investors invest their funds in ownership securities or debt securities of the organization with the expectation of getting favorable return in the future. In absence of proper utilization of the capital its fails to meet their expectation and damages the creditworthiness of the organization and leads to fall the market value of the organization. The banks are such business organization which deals with others money and the capital structure incase of the bank are very crucial.

1.4 Statement of the Problems

The study of capital structure for banking business is very essential since the business is operated with outsider's funds. The capital structure decision is important for long run profitability and solvency of the business. Generally high debt- equity ratio is considered to be disadvantageous from owner's point of view especially when the firm's is earning higher rate of return on the capital employed.

The study of the capital structure in banking business is very important as it deals with other money. The capital structure decision also impact upon long run profitability and solvency of the firm. The capital structure decision is important for long run profitability and solvency of the business. Generally high debt- equity ratio is considered to be disadvantageous from owner's point of view especially when the firm's is earning higher rate of return on the capital employed. The financial manager must be able to maintain appropriate proportion of debt-equity to avoid financial risk.

The proportion of debt in banking business is obviously larger than in any other business. The banks accumulate deposit from various unit groups paying certain percent interest and mobilize in productive sector and earn high return. The banks are considered as mechanism to canalize the funds from the small saver to the productive sectors. The study of capital structure in case of banking business very important of liquidation of one bank creates contagion effect over the economy of the country. In this study debt is considered to be cost bearing liabilities (i.e. saving deposit, fixed, call deposit and short term loan).

Under new policy of commercial banks, NRB directed all the commercial bank to increase the capital to Rs. 1 billion by mid July 2009 through minimum 10 percent paid up capital increment every year effective from mid may 2002. So, the banks are being highly sensitive. Business NRB reforms their policy from to time in favors of depositors and owners of the companies.

Following are the major problems those are being identified for the purpose of this study:

- Whether the capital structure affects Profitability of banks?
- Is the sample bank capable to enhance the earning by various composition of debt- equity ratio?
- What is the relation among capital structures, profitability and earning per share of the bank?
- What is the existing capital situation of joint venture banks?

1.5 Objectives of the Study

The main objective of the study is to analysis the impact of capital structure on profitability of sample banks. The specific objectives are as follows:

1. To analyze the capital structure of sample banks.
2. To analyze the effects of capital structure on the profitability of sample banks.

3. To examine the relationship between profitability and financial risk of sample banks.
4. To point out the relationship among capital structure, profitability and earning per share of sample banks.

1.6 Significance of the Study

The capital structure affects on the profitability and long-term financial position of the organization. The earning nature of the organization helps to adopt appropriate mix of debt and equity in the capital structure. On account of this significance, the capital structure and profitability of the organization is justified as a specific subject matter for the study.

The study helps to analyze the relation between the capital structure and performance of the organization and leads to design appropriate capital structure. This study also helps many individuals and groups to analyze the financial position of the organization and they may know the impacts if capital structure on the profitability of the organization. This study is important for the various groups and individuals like: Further researcher, University students who are new generation, financial managers, Government, NGO's and INGO's, shareholders and stockbrokers.

1.7 Limitations of the Study

This study is simply a study for the partial fulfillment of MBS degree, which has to be finished within a short span of time. This is not far from several limitations, which weaken the objective of the study. Some of the limitations are given below:

1. The whole study is mainly based on secondary data. So the result depends on the availability and reliability of the secondary data.
2. The study analyzes capital structure and profitability of the banks in particular.
3. Difficult to collect all required data, due to business secrecy.

4. The study covers the period of five fiscal years only i.e. from 2003 A.D. to 2007 A.D. therefore the conclusion is concern with only above period.
5. Out of 25 commercial banks, only 3 banks are taken into account to do the comparative study.

1.8 Organization of the study

The study has been organized into five chapters, each devoted to some aspects of the study of capital structure. Chapter One to five consists of Introduction, Review of Literature, Research Methodology, Presentation and Analysis of Data and Summary, Conclusions and Recommendations of the study. The rationale behind this kind of approach is to follow a simple research methodology approach.

Chapter 1: Introduction

Introduction chapter comprises background of the study, statement of problem, objectives of the study, and limitation of the study.

Chapter 2: Review of literature

Review of literature chapter comprises conceptual review of the capital structure and review of the past thesis.

Chapter 3: Research Methodology

Research Methodology deals with the method of investigation and includes research design, nature of the data, data collection procedure and tools used.

Chapter 4: Presentation and Analysis of data and Major Finding

Data presentation and analysis of data deal with different statistical and the financial tools that used in analysis of the data.

Chapter 5: Summary, conclusion and recommendation

Last chapter includes the summary, finding of the study and recommendations.

CHAPTER - 2
REVIEW OF LITERATURE

Review of literature is the chapter where a researcher reviews the books, journal, magazines or any other types of studies, which are related to his/her field of study. Research is a continuous process it never ends. The procedures and the findings may change but research continues. So for analyzing the data and to find something new a researcher must to review and know if there are any studies ahead or not.

2.1 Conceptual Review of the Study

As this study follows with Capital and Profitability, here it is most important to open up the conceptual thought behind it.

2.1.1 Concept of Capital Structure

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

Capital structure is considered as the mix of debt and equity and to operate in long run prospect. A firm must concentrate in its proportion. A firm can raise required fund by issuing various types of financial instruments. Investors and creditors being the key supply of capital, they hold greater degree of risk and hence have claims over firm's assets and cash flow. Similarly debt holders are also a sources of financing fund and they have risk considering firm's cash flow is uncertain and there is probability that it may default in it's obligations to pay off it's interest and principle. In the other hand, if a firm issue preference share, those shareholders have the priority in payment of dividend before common shareholders but after debt holders. Since the percentage of preference dividend is fixed as the percentage of interest to debt, it is preferably paid off only after interest payment. Common shareholders as are the owner of the firm; they are paid from cash remaining after all payment is being made. Since the common share i.e. equity fluctuate in the market more than the preference share and debt, there is more risk.

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The term of capital structure is used to represent the proportionate relationship between debt and equity. The debt and equity mix of a firm as called capital structure. The capital structure decision is a significant financial decision since it affects the shareholders' return risk, and market value of shares (Pandey, 1992). Capital structure is the permanent financing of the firm represented primarily by long-term debt, preferred stock and common stock, but excluding all short term (Western & Brigham, 1982). Both debt and equity are used in most large corporation. The choice of the amount of debt and equity is made after a comparison of certain characteristics of each kind of securities, of interest factor related to the firm's and of external factors can affect the firm (Hampton, 1986). Capital structure of a company refers to the composition or make-up of its capitalization and it includes all long-term capital resources, loans, reserves, shares and bonds (Charles 1960). The importance of an appropriate capital structure is the obvious. There is a viewpoint that strongly supports the close relationship between leverage and value of firm. There is an equally strong body of opinion, which believes that financing mix or the combination of debt and equity has no impact on the shareholders' wealth and the decision on financial structure is irrelevant. In other words, there is nothing such as optimum capital structure (Khan & Jain, 1999).

The concern of the financial decision is with the financing mix or capital structure or leverage. The financing decision of a firm relates to the choice of the portion of these

sources to finance the investment requirement. There are two aspects of the financing decisions. First, the theory of capital structure which shows the theoretical relationship between the employment of debt and the return to the shareholders. The use debt implies a higher return to the shareholders and also the financial risk. A proper balance between debt and equity to ensure a trade off between risk and return to the shareholders are necessary. A capital structure with reasonable proportion of debt and equity capital is called optimum capital structure (Khan & Jain 1984).

2.1.2 Concept of Profitability

The term profit and simply the money gained from a sale, which is more than the money spent. According the dictionary of commerce, profit is termed as to describe the surplus resulting after a defined trading period but must be regarded as the first essential charge upon business, being a reward a for engaging resources in conditions of speculative risk for the satisfaction of consumer resources of speculative risk for the satisfaction of consumer demand. It furnishes resources to invest in future operations and consequently its absence must result in a decline in effective capital resources and ultimately competitive extinction of the business.

The term ‘profit’ can be used in two senses. As a owner oriented concept it refer to amount and share of national income which is paid to the owners of business, that is those who supply equity capital as variant it is described a profitability. In other word, profitability refers to situation where output exceeds input that is the value created by the use of resources is more than the total of input resource.

Profitability is a deviation of the term profit which explains ability to make a profit is a primarily a measuring rod of success of business enterprise. It is the basic test of performance of any business simply stating. Profit is money excess of sale over money spent but the term “Profit” is very controversial and there are several different interpretations about it.

An economist will say that profit is the reward of entrepreneurship for risk taking. A labor leader might say that it is a measure of how efficiently labor has produced and that it provides a base for negotiating a wage increase. And investor will view it is a gauge of the return on his/her money. An internal revenue agent might

regard it as a base fro determining income taxes. The accountant will define it simply as the excess of firm's revenue over expenditure of producing revenue in given fiscal period (Lynch & Williamson, 1989) In this regard, American Institute of Banking says, Under the free enterprise system like USA, the interest of the nation as well as those of the individual stockholders is supposed to be best served by vigorously seeking profit. But the profit cannot to be a sole objective of an enterprise and an enterprise should not be evaluated just on the ground of the profit it earned. Neither bank nor the community will be best served it the banker unreasonably sacrifices safety funds of the liquidity of bank in an effort to increase income (American Institute of Banking, 1972).

2.1.2.1 Traditional Approach towards Profit

Profit maximization is the traditional approach of business environment and economic theory on the ground of profit for firm. In the economic theory, one of assumption is profit maximization. It always assumes that a firm sets target to maximize the profit and is discretionary behavior of the firm, so in the managerial economics, to maximize profit is the central belief.

Profit is the measurement of the business firm's overall performance. A business firm can claim it to be successful if it can maintain maximum profit to justify the worth of return on investment. This helps business firm to save from shortage of funds and provides best opportunities to under take the expansion of assets to enlarge business (Shrestha, 1980).The promise of profit provides a strong incentive to owners and manager to act efficiently. There fore it is common in economic theory to hypothesis that the criteria for evaluate the action of the firm is profit maximization. The basic incentives for business are to produce goods and services. The profit in this sense is revenue that remains after deducting both explicit and implicit costs, including nominal profit considered of the entrepreneur's services. Profit is essential every enterprises to survive in the long run as well as to maintain capital adequacy through retained earning. It is also necessary to accept market for both and equity to provide funds for increased assistance to the productive sector (Robinson, 1951).

2.1.2.2 Modern Approach toward Profit

Business environment is totally different form past to today. In past time one of main objective of firm was profit maximization. But today sales maximization is the main objective of firm. So that firm's objective may be to maximize its growth rate

or satisfaction shareholders' wealth maximization. Today every business firm is finance by equity owners, creditors. Customer, employees, government and society connected with firm. Besides other objectives of business firm, wealth maximization of shareholders' is normal objective of firm or otherwise a firm should set a standard for reasonable profit.

There are threats given to profit maximization and the economists to the profitability concept of firm give so many alternatives. Though there are denials towards profitability maximization model of a firm, economist still do not have unified views to cover the alternative model when markets are perfect competitive, monopolistic or oligopolistic form. Therefore, the profitability model is still in the existence. A business firm still prefers to maximize profit as far as possible. Business has multiple goals and the needs of survival, goodwill, security and broth commonly call for some sacrifice of short term profits. Most business does, however, rate profitability consistently high among their long term objectives and it could be argued short term goal such as security and growth rate infect, subordinate to long term profitability.

2.2 Theories of Capital Structure

Capital structure refers to the mix of long-term sources of funds, such as debenture, long term debt, preference share capital and equity share capital. The capital structure decision affects the overall cost of capital, total value of the firm and earnings per share. The capital structure concept plays an important place in the theory of financial management. The term, capital structure, also known as financial structure or financial plan or leverage. The financing decision of the firm is one of the tools for achieving firm's objectives of shareholders wealth maximization. Thus, the financial decision of a firm relates to choice of proportion of debt and equity to finance the investment requirement a proper balance between risk and return to the shareholders. To understand about the capital structure decision and concept under different theories, it is important to have some idea of major capital structure theories. Many theories about capital structure have been developed in the field of financial management. The following theories have been described in this study.

- Net Income (NI) Approach
- Net Operating Income (NOI) Approach
- Traditional Theory
- Modigliani and Miller (M-M) Model

2.2.1 Net Income Approach (NI Approach)

The financial leverage is according to the NI approach, an important variable in the capital structure decision of firm. With the judicious mixture of debt and equity, a firm can evolve an optimum capital structure which will be the on at which value of the firm is the highest and overall cost of capital the lowest. At that structure the market price per share would be maximum. If the firm uses no debt be equal to the equity-capitalization rate. The weighted average cost of capital will decline and will approach the cost of debt as the degree of leverage reaches on (Pandey, 1984). According to this approach, there is optimal capital structure where the market price per share of stock is maximum. The significances of this approach are that a firm can lower its cost of capital continually and increase its total valuation by the use of debt funds. Thus will increased use of lever age overall cost of capital declines and total value of the firm rises (Khan & Jain, 1984).

Graphically, the effect of leverage on the firm's cost of capital and its total market value under NI Approach is shown in figure 1.

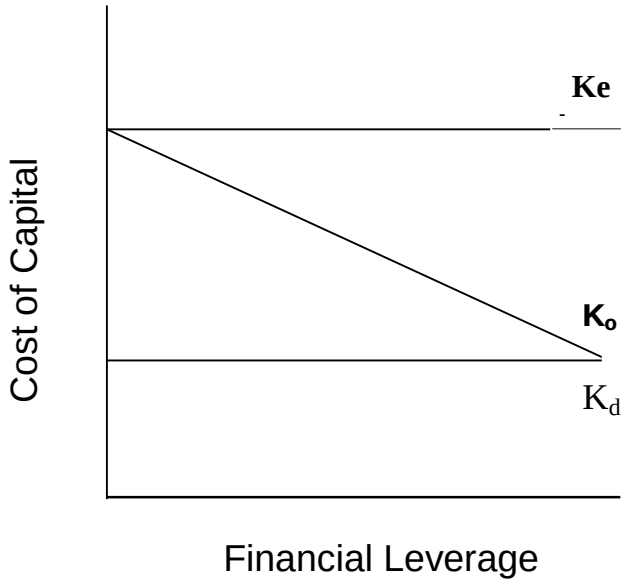


Figure: 1 Effect of Leverage on the Cost of Capital under NI Approach

If cost of debt and cost of equity are constant as is assumed in the NI approach, then the proportion of cheaper debt funds in capital structure increases, the cost of capital decreases. Thus, under the NI approach the firm can lower its cost of capital and raises its total market value through the addition of debt capital.

Assumption of NI Approach

- The use of debt does not change the risk perception of investor, as a result the equity capitalization rate Ke and the debt capitalization rate kd remain. Constant with change in leverage.
- The debt capitalization rate is less then the equity capitalization rate.
- The corporate income tax does not exist. Therefore as firm increase its leverage by increasing its level of debt relatives to equity, the overall cost of capital declines.

2.2.2 Net Operation Income Approach (NOI)

Another theory of capital structure is the net operation income approach. This approach is diametrically opposite to the net income. The essence of this approach is that the capital structure decision to the firm is irrelevant. Any change in leverage will not lead any change in the total value of the firm and the market price of shares, as the overall cost of capital is independent of the degree of leverage (Khan & Jain 1984).The important assumptions of NOI approach are: Ko is constant, regardless of the degree of leverage. The market capitalizes the value of the firm as a whole; as a result, the breakdown between debt and equity is unimportant. An increase in the use of supposedly 'cheaper' debt funds is offset exactly by the increase in the require equity return (Ke). Thus the weighted average of Ke and Kd remains unchanged for all degrees of leverage. As the firm increases its degree of leverage, it becomes increasingly more risky. Investors penalize the stock by raising the required equity return directly in keeping with the increase in the debt to equity ratio. As long as Kd remains constant, Ke is a constant linear function of debt to equity ratio. Because the cost of capital of the firm, Ko cannot be altered through leverage, the net operating income approach implies that there is no one optimal capital structure Van Horne (2002).

Assumption of Net Operation Income Approach

- The market capital capitalizes the value of the firm as whole. Thus the split between debt and equity are not important.
- The market use an overall capitalization Ko to capitalize the net operating income Ko depends on the business risk is assumed to remain unchanged Ko is constant.
- The debt capitalization rate Kd is constant.
- The corporate tax does not exist.

Graphic presentation of this theory is shown in the following figure:

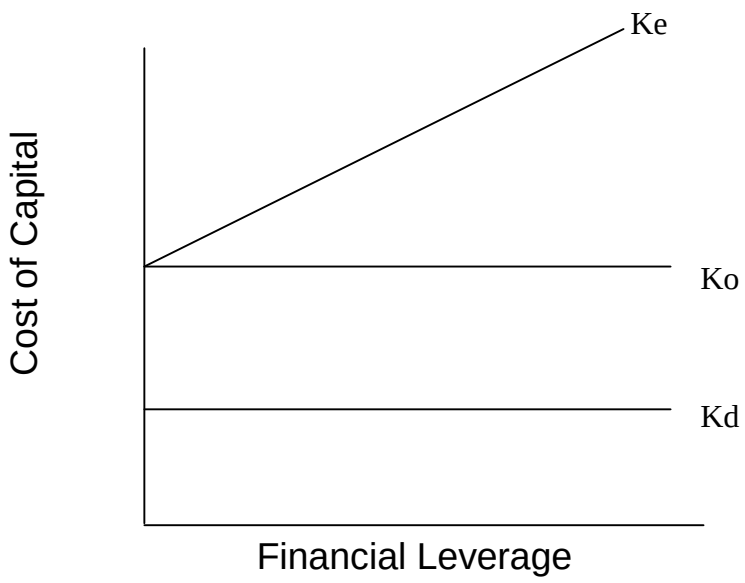


Figure: 2 Effect of Leverage on Cost of Capital under NOI Approach

Under the NOI approach, the capital structure selected is a "more detail" since the value of the firm is independent of the firm's capital structure. If firm increases its uses of financial leverage more debt. This directly offset by an increase in the cost of equity capital. This relationship as presented in figure 2 indicates that as more debt is added to the firm's capital structure, the cost of equity capital rapidly rises. According to NOI approach, the cost of debt has two parts: The explicit cost which is represented by the interest rate, and an implicit or hidden cost, which result from the increased cost of equity attributable to increase in the degree of financial leverage. At extreme degree of financial leverage, this hidden cost becomes very high. Hence, the firm's cost of capital and its total market value are not influenced by the use of additional "cheap" debt funds. (Gitman & Pinches)

2.2.3 Traditional Approach

The traditional view, which is also known as an intermediate approach, is a compromise between NI approach and NOI approach. The crux of the traditional view relating to leverage and valuation is that through judicious use of debt- equity proportion, a firm can increase its total value and thereby reduce its overall cost of capital (Barges, 1963) .The approach justifies the view that debt capital is relatively cheaper than ordinary shares. So changing leverage i.e. using debt instead of equity

capital obviously causes a decline in the overall cost of capital is minimum or the raised further the firm would become financially more risky to the investors who whole penalize the firm by demanding a higher equity capitalization rate (Khan & Jain, 1992).

According to traditional approach the overall cost of capital reacts to change in capital structure can be divided into three stages.

First stage (Increasing value): - The cost of equity (ke) remains constant or rises slightly with debt. But when it increases, it does not increase fast to offset the advantages of low cost of debt.

Second stage (optimum value): - The cost of equity is increased due to the added financial risk offset the advantages of low cost of debt. At the specific point the value of firm will be maximum or the cost of capital will be minimum.

Third stage (Declining value): - Accepting limit of leverage the value of firm decrease with leverage or the cost of capital increase with leverage.

The relationship between cost of capital and leverage can be graphically shown as below

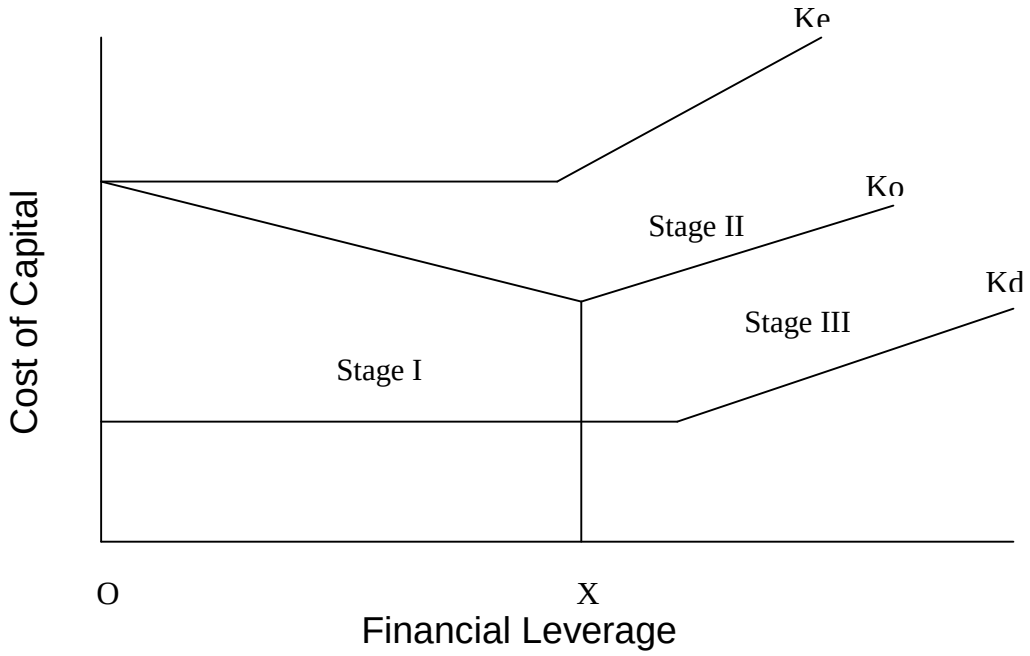


Figure: 3 Effect of Leverage on Cost of Capital under Traditional Theory

In one variation of the traditional approach, shown in figure no 3, cost of equity (Ke) is assumed to rise at an increasing rate with leverage, whereas cost of debt (Kd) is assumed to rise only after significant leverage has occurs. At first, the weighted average cost of capital declines with leverage because the risk in Ke does not offset entirely the cost of cheaper debt funds. As result, the weighted average cost of capital, Ko, declines with moderate use of leverage. After a point, however, the increase in Ke more then offset the uses of cheaper debt funds in the capital structure, and Ko begins to rise. The rise in Ko is supported further, once Ki begins to rise. The optimal capital structure is the point of view at which Ko h bottoms out. In above figure 3 the optimal capital structure is point x. Thus, the traditional position implies that cost of capital is not independent of the capital structure of the firm and that there is an optimal capital structure (Vanhorn, 1993).

2.2.4 Modigliani- Miller (MM) Approach

This approach is relating to the relationship between the capital structure and cost of capital and valuation is asking to the NOI approach (Khan & Jain, 1999). The MM approach maintains that the weighted average cost of capital does not change. According to MM approach if absence of taxes a firm's market value and the cost of capital remain invariant to the capital structure change (Pandey, 1999).

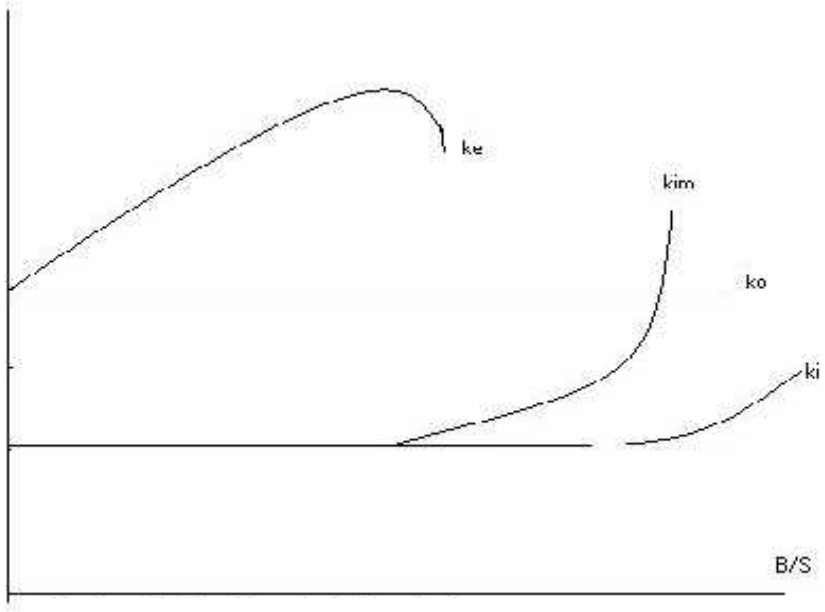
The MM hypothesis can be expressed in term of their proposition (I) and (II) are based on certain assumption.

- Perfect capital market: - It means investors are free to buy and sell securities and they can borrow easily.
- 100% dividend payout ratio.
- There is no corporate tax.
- Business risk is equal to all firms.

Proposition I: - The market value of the firm is independent of its capital structure under this assumption. In other words, M-M argue that for firms in the same risk class, the total market value is independent of the debt equity mix and is given by the rate appropriate to that risk class. This can be expressed as follows:

Value of Firm = Market Value of Debt + Market Value of Equity

M-M conclude that total market value of the firm is unaffected by the debt equity mix, it follow that the cost of capital is independent of the capital structure and is equal to the capitalization rate of a pure equity stream of its class. The overall cost of capital function, as hypothesized by M-M is shown in figure . 4



Financial Leverage

Figure: 4 Behaviors of Ko, Ki and Ke Under MM Hypothesis

Thus, two firms identical in all present expects for their capital structure, cannot command different market value or in the market values or the cost if capital, arbitrage will take place, which will enable investors to engage in personal leverage to restore equilibrium in the market (Pandey, 1984).

The term arbitrage, as used by MM, refer to the simultaneous buy and sell process investors would enter into if they saw two identical firms selling at different prices because of difference in their capital structure. MM argue that the value of these two firm has to b the same, otherwise investors would profit by selling the shares of over valued co. and buying those of undervalues one. The essence of their argument is that investors substitute personal leverage for corporate leverage (Gitman and Pinches).

Proposition II: - MM's proposition II, which defines of equity, follows from their proposition I shows the implication of the net operating approach. According MM thesis is that ko will not rise even if very excessive use of leverage is made. This

conclusion could be valid if ki remains constant for any degree of leverage, But in practice ki increase with leverage beyond a certain acceptable level of leverage. However, MM maintain that even if ki is a function of leverage, ko will remain constant as ke will increase at a decreasing rate to compensate.

2.3 Review of Related Empirical Studies

In this section, the previous studies related to the capital structure and profitability is reviewed. It consists of thesis done by previous Master's Level Student as well as other research works, journals and article written by different writers related to the capital structure and profitability of the firm.

2.3.1 Review of Journal

Abor (2005) in the study, 'The effect of capital structure on profitability." mentioned that the relationship between capital structure and firm value has been the subject of considerable debate. Throughout the literature, debate has centered on whether there is an optimal capital structure for an individual firm or whether the proportion of debt usage is irrelevant to the individual firm's value. The capital structure of a firm concerns the mix of debt and equity the firm uses in its operation. Brealey and Myers contend that the choice of capital structure is fundamentally a marketing problem. According to Weston and Brigham, the optimal capital structure is the one that maximizes the market value of the firm's outstanding shares.

Other theories that have been advanced to explain the capital structure of firms include bankruptcy cost, agency theory, and the pecking order theory. These theories are discussed in turn.

Bankruptcy costs are the cost directly incurred when the perceived probability that the firm will default on financing is greater than zero. The bankruptcy probability increases with debt level since it increases the fear that the company might not be able to generate profits to pay back the interest and the loans. The potential costs of bankruptcy may be both direct and indirect. Examples of direct bankruptcy costs are the legal and administrative costs in the bankruptcy process. Examples of indirect bankruptcy costs are the loss in profits incurred by the firm as a result of the unwillingness of stakeholders to do business with them .The use of debt in capital

structure of the firm also leads to agency costs. Agency costs arise as a result of the relationships between shareholders and managers and those between debt-holders and shareholders. The need to balance gains and costs of debt financing emerged as a theory known as the static trade-off theory by Myers. It values the company as the value of the firm if unleveled plus the present value of the tax shield minus the present value of bankruptcy and agency costs.

Pecking other theory suggests that firms will initially rely on internally generated funds, i.e. undistributed earnings, where there is no existence of information asymmetry, then they will turn to debt if additional funds are needed and finally they will issue equity to cover any remaining capital requirements. The order to preferences reflects the relative costs of various financing options. The pecking order hypothesis suggests that firms are willing to sell equity when the market overvalues it.

In summary, there is no universal theory of the debt-equity choice. Different views have been put forward regarding the financing choice.

Dang (2005) examined the performance of two influential but contradicting theories of capital structure, known as the trade-off and pecking order theory. In general, our finding suggests that the trade-off theory holds well under both a partial adjustment and an error correction framework. In specifications that nest both theories, the former theory outperforms the latter theory. The introduction of the cash flow deficit variable has added little amount of additional explanatory power to the trade-off framework. Furthermore, the estimated coefficient on that variable is not found to be statistically equal to unity as it would be if the strict interpretation of the pecking order theory were to hold. The results consistently show that the adjustment process prevails with the speed of adjustment coefficient significant and relatively high (above .50). There has been also some compelling evidence in favor of the relationships between gearing and the conventional determining factors (except profitability), as predicted by trade-off framework. Non-debt tax shields and growth opportunities are reported to be inversely related to debt ratio, while collateral value of assets and size are found to have positive effects upon gearing.

In other respect, the study has posed serious questions on the empirical validity of the pecking order theory. However, given the simplicity of the empirical model, it is impossible to reject the pecking order theory prediction completely.

Shrestha (1993) conducted a study on the topic 'Focus on Capital Structure of selected and listed public companies.' The study used data from 19 companies, which covered different sectors such as manufacturing, finance, utility service and other allied areas. It was found that most of these companies have debt capital relatively very higher than equity capital. Consequently most of them are operating at losses to the extent that payment of interest on loan has been serious issues. Most of the losses are after charging interest on loan. It has suggested that the government has to consider the public enterprises in evaluating the relationship between use of debt and its impact on overall earning of public enterprises. So government should be sure in knowing how using debt capital will maximize return. It should develop a suitable capital structure guideline to make public enterprises aware of its responsibility to repay the debt schedules. Government has to analyze cost and risk return trade off. Thus, capital structure needs to be made more determinate by realistic analysis of cost. Lastly, she concluded that policy makers have to be careful in developing the suitable capital structure guidelines in making public enterprises as well as listed companies to be aware of financial accountability.

2.3.2 Review of Article

Poudyal (2002) examine the interrelationship between the objectives of achieving an optimal capital structure and to provide conceptual framework for the determination of the optimal capital structure. For this, a hypothetical firm is constructed and different assumptions are laid down to analyze the effect of capital structure. Various statistical and financial tools like ratio analysis are used to extract reasonable figure for the hypothetical firm. It is observed that the minimum weighted average cost of capital, maximum value of the firm and price per share are attended at debt ratio of 30%.Furthermore, if there is flexibility to select capital structure in any proportion, optimal capital structure range from 30% to 40%. An optimal capital structure would fulfill the interest of equity shareholder and financing requirement of a company as well as other concerned groups.

Marsh (1982) expressed the following issues

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

Then he suggested that

- While planning their issues, company should consider future as well as current debt ratio.
- If the companies are looking at book value debt ratio, there will change during the interest-issuing period of retentions and bank loans.
- Any overall change in tax level could cause issuing companies to shift their performance towards either debt or equity.
- Small companies rely on bank loan rather than long-term debt because of location, cost and problems of access to capital market.
- Equity issues seem to be favorable as it provides strong share price and overall market performance.

Fama & French (1998) analyzing the relationship among taxes, financing decisions and the firm's value, conclude that the debt doesn't concede taxes benefits. Besides, the high leverage degree generates agency problems among shareholders and creditors that predict negative relationships between leverage and profitability. Therefore, the negative information-relating debit and profitability obscure the tax benefit of the debt.

Booth et al. (2001) developed a study attempting to relate the capital structure of several companies in countries with extremely different financial markets. They concluded that the variables that affect the choice of the capital structure of the companies are similar, in spite of the great differences presented by the financial markets.

Ness Júnior & Zani (2001) which aimed to evaluate if there are significant differences among financial indexes of companies that cast interest on equity, and the indexes of those firms that don't, concluded that there is not a statically significant difference among the leverage degrees, debt indexes and long-term debts of the two

groups of companies. The result indicates that the introduction of interest on equity did not change in the capital structure.

Mesquite and Lara (2003) found in their study that the relationship between rates of returns and debt indicates a negative relationship for long- term financing. However, they found a positive relationship for short – term financing and equity.

2.3.3 Review of Past Thesis

Aryal (1991) has found that the long-term debt on BNL is increasing year by year because the company has borrowed more long-term debt. Different ratio analyses show the inefficient capital structure management of the company. He had made his analyses only five years period and he suggested that the company has to follow good policy to set capital structure.

The calculation of leverage position indicates the bad performance of the company because it is in increasing trend. After doing all calculation like ratio, leverage, Capital structure position, correlation and PE ratio etc, it is found that the company is facing bad situation due to inefficient capital structure. So the company has to lower down the amount of debt and to obtain additional fund through then issue of equity share by using cheaper source of collecting funds. In order to build up public image, share must be issued to the general public. Moreover the company should think about other new product for winter season to increase good image of the company.

Pathak (1999) has carried out the capital structures of Nepal Indoseuz Bank Ltd and Nepal Grindlays Bank are highly levered, so it is difficult for them to interest and principal that may ultimately lead them to liquidity or bankruptcy. There is no significance relationship between debt and equity ratio in term of fixed deposits to net worth and overall capitalization rates of the banks. The ROE fluctuation is found to be influenced by the dividend payout ratio and interest margin in NIB Ltd. both banks very in the total assets, number of bank branches and volume of transaction. Both the banks are efficient and well establishes and doing well. He has suggested that NIB Ltd. should expand assets and branches, which may ultimately affect the bank's performance and increase the profitability more than ever.

Tamang (2001) found that profit is one of the measurements of successful firm in planning its most optimum capital structure to provide maximum return to its shareholders and to increase the value of the firm. By analyzing the debt to equity ratio in terms of long-term debt and shareholders equity, both hotels' D\E ratios are not higher according to the standard ratio, which constitute 1:1. Hotel Yak & Yeti is trying to be levered company, which has practice of increasing the D\E ratio, since 2055\056 by approximately 27% every year. While calculating the correlation co-efficient, he found that hotel Soaltee has negative correlation coefficient and there is safety to lenders last year, which is indicated by the decreasing D\E ratio. Hotel Soaltee does not have financial leverage that is why changes in EBIT are not able to bring change in EPS. Therefore he has suggested that hotel Yak & Yeti no should reduce its equity multiplier and increase the use of assets efficiently. In other words to get higher ROE both hotels have once higher profit margin but it is impossible to get high profit margin every time. So they should try to increase asserts turnover and redeem the amount of total debt, otherwise such debt would be a burden in terms of paying fixed interest while hotels are not getting high profit. He has also recommended that they should give equal importance to other factor like operating efficiency and assets efficiency, etc. and the government also should make effective tourism policy.

Prajuli (2001) has analysis that the appropriate mix of capital keeps a firm sound and healthy. In the long run, liquidity may depend on the profitability of a firm but to survive to achieve long run profitability, it has to depend on its capital structure to some extent. He has used hypothesis to measure the significance relationship between debt and equity.The NLL's long-term debt seems very high at time of establishment. But in fiscal year 2055\056 and 2056-057, there is no long-term debt at all. Thus it can be said that the company's management is reluctant towards employing long- term loans. From the DU point analysis, it is found that the profit margin and equity multiplier are in decreasing trend, which causes continuous decrease in ROE. Now it appears that increasing the amount of debt in the firm can lever ROE up. According to the different calculation, he has found that performance of a proper capital structure by including the long-term debt.

Shrestha (2004) has found that BNL has no long-term debt and is trying to be and equity based company. The company is regularly paying interest payment for short-term loans. Also she has found that the net profit margin shows that the

earning available for BNL is not fixed. Due to the decreasing turnover ratio, the company is not using its assets efficiently, its assets amount being more than 100% of the equity amount. From all the relationship calculation, ROE seems to fluctuating. So shareholders return from their investment is not fixed. Sales of BNL specially depend upon cold drinks, which are mostly useful in the summer season, so the sales will be greatly decreased in the winter season. She suggested that if BNL will introduce new product for winter season as well as summer season, it would able to increase its sales volume. For this proposal, BNL need more capital, which can be fulfilled by the long-term debt for assets financing. In this study attempts to analyze and evaluate the relationship of the capital structure with various variables as like profitability, cost of equity and so on.

Pandey (2003) analyze the interrelationship of capital structure with various important variables such as earning per share, dividend per share and net worth of the joint venture banks and to provide suggestions to overcome various issues and gaps. The study has used financial tools such as Ratio Analysis, EBIT-EPS analysis, overall capitalization rate, equity capitalization rate, total value calculation etc and Statistical tools such as Karl Pearson's correlation and probable errors.

The study concluded that all the joint venture banks are using high percentage of total debt in raising the assets and all the banks are able to pay the interest. The study suggested that the bank must control total deposit and the bank must also control investment. The bank needs to reduce its expenses and control fluctuations in the earnings per share to improve its market price per share.

2.4 Concluding Remarks

The funds required to business enterprises are raised either through the ownership securities (i.e equity shares and preference shares) and creditor shares (i.e. debentures or bonds). A business enterprise has to maintain proper mix of both the securities in a manner that the cost and the risk perception to the shareholders are minimized. Under new policy of commercial banks, NRB directed all the commercial bank to increase the capital to Rs. 1 billion by mid July 2009 through minimum 10 percent paid up capital increment every year effective from mid may 2002. So, the banks are being highly sensitive. Business NRB reforms their policy from to time in favors of depositors and owners of the companies.

From the review of above study relationship between capital structure and profitability is negative in point of view pecking other theory but trade off theory said that the relationship between capital structure and profitability is positive. This research is useful to examine the relationship between capital structure and profitability of sample banks. No research has been undertaken entitled Capital Structure & Profitability of Nepalese Commercial banks among the Nabil Bank, Nepal Investment Bank and Himalayan Bank. Some researcher has done the comparative studies of other joint venture banks. But with in this bank, study is not found. NBL, NIBL and HBL are the leading joint venture commercial banks of the country having the huge market share and its investment a activities and these banks has significant impact on developing the economy of the country.

Capital structure concept has important place in financial management theory. It is basically known as financial structure, financial plan or leverage. Financing decision of a firm, as the other financial decision, is concerned with shareholders wealth maximization. As capital structure refers to the proportion of debt and equity, a choice in proportion is actually financial decision in case to fulfill investment requirement. Therefore, it is a wise decision to select a financing mix, which maximizes shareholders wealth. Hence, this study fulfills the prevailing research gap about the in depth analysis of the capital structure and profitability analysis which is the major concern of the shareholders and stakeholders.

CHAPTER - 3
RESEARCH METHODOLOGY

Research is search or study about phenomena. It is essentially a systematic enquiry seeking facts through objectives verifiable methods in order to discover the relationship among them and to deduce from them broad principle or laws. The term "Research" refers to a critical, careful and investigation or enquiry or examination or experiment having as its aim the revision of accepted conclusion in the newly discovered facts.

In this chapter, it has been used research design, nature and source of data, population and samples, data collection procedure and data analysis procedure. Also it has been used the methods of investigation followed by the objectives of the study, states the sources and limitation of the data in the study.

3.1 Research Design

Research design is outline, plan and strategy of investigator to obtain answer to research question and to control variance. The study is evaluative and analytical type of study regarding the capital structure and profitability. The research design used in the study is descriptive and evaluative. The data relative to topics are collected through financial statement of the sample banks and other available source. The data for five year had collected and various financial and statistical tools had used to resolve the objective.

3.2 Natures and Sources of Data

Generally this study is based on secondary data. The required data are extracted from balance sheets, Profit and Loss accounts and different financial schedules of concerned banks' annual reports. Other supplementary data are collected from a number of institutions and regulating authorities like Nepal Rastra Bank, Nepal Stock Exchange Ltd., Security Exchange Board, etc. and from different related websites. This study is based on the historical data of 5-year period. Documents, books, other publishes or unpublished material, thesis, newspapers are the

important of data and informal quires, with the authorities of the concerned firm is primary source in nature.

3.3 Population and Sample

It is not possible to study all the data related with all bank of Nepal. There are altogether 25 listed Commercial Banks in our country and their stocks are traded actively in stock market. These listed banks are considered as size of the population. Out of them, 3 leading banks are considered as samples to carry out this thesis.
The selected samples are as follows:

a) Nabil Bank Limited (NBL)
b) Nepal Investment Bank Limited (NIBL)
c) Himalayan Bank Limited (HBL)

3.4 Data Collection Procedure

Almost secondary data has been used in this study. The needed data are collected from Balance Sheet, P&L Account, of the concerned banks and relevant bank website. In addition to that some of the relevant data are also collected from stock exchange board and Nepal Rastra Bank.

3.5 Data Analysis Techniques

To achieve the objectives of the study, various accounting, statistical and financial tools have been used in this study. The analysis of data is done according to pattern of data available. Different tools have been selected according to the nature of data as well as subject matter. The major tool employed for the analysis of the data is ratio analysis, which establishes the numerical relationship between two variables of the financial statement in addition to this leverage analysis, capital structure analysis and Time series analysis are also applied. Similarly some strong statistical tools such as Karl Pearson's coefficient of correlation, simple regressions analysis as well as corresponding hypothesis etc is use in the study. The various calculated results obtained through financial and statistic tools are tabulated under different headings. Then they are compared with each other to interpret the results.

3.5.1 Financial Tools

There are various financial tools and technique each of which is used according to their purpose carried out. Among them ratio analysis is used by most companies. Therefore in this study we discuss about ratio analysis.

3.5.1.1 Ratio Analysis

Ratio analysis is powerful tool of financial analysis, which helps in identifying financial strengths and weakness of business concerns. The relationship between two accounting figures expressed mathematically is known as a financial ratio." Ratio analysis is used to compare a firm's financial performance and status to that of other itself over time." From the help of ratio analysis, the qualitative judgment can be done regarding financial performance of a firm.

Ratio analysis is a technique of analyzing and interpreting financial statements to evaluate the performance of an organization by creating the ratios from the figures of different accounts consisting in balance sheet and income statement. Even though there are many ratios, only those ratios have been covered in this study, which are related to investment operation of the bank. In this study, following ratios are calculated and analyzed.

3.5.1.1.1 Debt Assets Ratio

This ratio exhibits the relationships between creditors fund and owners capital. This ratio shows the proportion of outside fund used in financial total assets. It also provides security / financial safety to the outsider's i.e. potential shareholders, depositor or investors. Higher debt ratio indicates higher financial risk as well as increasing claims of outsiders in total assets and lower ratio indicates lower financial risk as well as decreasing claims of outsiders over the total assets of the firm. Generally 1:2 ratios are considered good but however no hard and fast rule is prescribed. This implies a finance company success in exploiting debt to more profitable areas. This ratio is represents as follows.

$$\text{Debt Assets Ratio} = \frac{\textit{Total Debt}}{\textit{Total Assets}}$$

3.5.1.1.2 Debt Equity Ratio

Debt equity ratio examines the relative claims of creditors and owners against the firm assets. Alternatively, the debt equity ratio indicates the combinations of debt capital and equity capital fund to the investment .The ratio is computed by using following formula:

$$\text{Debt Equity Ratio} = \frac{\textit{Total Debt}}{\textit{Total Equity}}$$

3.5.1.1.3 Short Term Debt to Total Assets Ratio

The relationship between short term debt and total Assets has a decisive the financial structure of the companies. This relationship indicates what percentage of Total Assets is covered by Short Tern Debt. This ratio is represents as follows

$$\text{Short Term Debt to Total Assets Ratio} = \frac{\textit{Short Term Debt}}{\textit{Total Assets}}$$

3.5.1.1.4 Long Term Debt to Total Assets Ratio

The ratio of long term debt to Total Assets measures the relative share of long term debt in total Assets of the banks. This ratio shows the relationship between the long term debt and total Asset. This ratio plays crucial role as it tells about the proportion of long term debt and shareholder's fund in the capital structure.

The long term debt denotes all the debts, which matures more than one year. Higher the ratio implies the higher contribution of long term debt to Total Assets and lower the ratio indicates the lower proportion of long term debt in Total Asset. Conventionally a ratio of 1:2 is considered to be satisfactory. The ratio is computed by using following formula:

$$\text{Long Term Debt to Total Assets Ratio} = \frac{\textit{Long Term Debt}}{\textit{Total Asset}}$$

3.5.1.1.5 Interest Coverage Ratio

This ratio indicates the ability of the company to meet its annual interest costs or it measures the debt servicing capacity of the firm. Higher Interest Coverage ratio

indicates the company's strong capacity to meet interest obligations. A firm always prefers Interest Coverage ratio because low Interest Coverage ratio is a danger signal. Lower Interest Coverage ratio means the firm is using excessive debt and does not have an ability to offer assured payment of interest to the creditors.
This ratio is determined by using following formula:

$$\text{Interest Coverage Ratio} = \frac{\text{Earning before Interest and Tax}}{\text{Interest}}$$

3.5.1.1.6 Net Profit to Total Assets (ROA)

Net profit refers the profit after interest and taxes. It is also known as return on total assets (ROA). This ratio evaluates the efficiency of company in utilizing and mobilizing of assets and its survival. It is useful for measurement of the profitability of all financial resources invested in the bank assets. It also provides the foundation necessary for company to deliver a good return on equity. Higher return on assets (ROA) indicates higher efficiency in utilization of total assets and vice- versa. ROA is calculated by dividing the amount of net profit by the total assets.

$$\text{Net Profit to Total Assets Ratio} = \frac{\textit{Net Profit}}{\textit{Total Assets}}$$

3.5.1.1.7 Return on Shareholder's Equity or ROE

Net worth or shareholders equity refers to the owners claim on the assets of the bank. It can be found by deducting total liabilities from total assets (excluding intangible assets and accumulated losses.) This ratio measures the profit earned by the commercial banks by utilizing owner's equity and there by generating return to satisfy the owners. This ratio indicates sound management and efficiency and wealth maximization of the banks, which in turn is the wealth maximization of the banks. It is calculated by dividing EBIT by Equity, which is express as follows.

$$\text{ROE} = \frac{\textit{EBIT}}{\textit{Equity}}$$

3.5.1.1.8 Total Interest Earned to Total Working Fund Ratio

The ratio shows the earning capacity of a bank on its total assets (working fund). This ratio exhibits the extent on which banks are successful in mobilizing their working funds to generate income as much as possible. The higher ratio will indicate the high earning power of the banks on its total assets. Total interest earned is calculated by adding the total income from loans, advances, cash, credit, overdrafts and government securities etc. This ratio is calculated by dividing net profit by total working fund.

$$\text{Total Interest Earned to Total Working Fund Ratio} = \frac{\textit{Total Interest Earned}}{\textit{Total Working Fund}}$$

3.5.1.1.9 Total Interest Paid to Total Working Fund Ratio

The ratio is used to measure the percentage of total interest expenses against the total assets. Higher the ratio, higher will be the indication of interest expenses on total assets and vice- versa. Total interest expenses consists the expenses on the deposits, loan and advances, borrowing and other deposits. The ratio is calculated as follows.

$$\text{Total Interest Paid To Total Working Fund Ratio} = \frac{\textit{Total Interest Paid}}{\textit{Total Working Fund}}$$

3.5.1.1.10 Earning Per Share (EPS) Analysis

The profitability of bank from the point of view of the ordinary shareholders is earning per share. The ratio explains net income for each unit of share. Earning per share of an organization gives the strength of the share in the market. It shows how much of the total earnings belong to the ordinary shareholders. EPS is calculated as below

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

3.5.2 Statistical Tools

In this study, the following statistical tools are used.

3.5.2.1 Arithmetic Mean or Average

The average value is a single value with in the range of the data that is used to represent all of the values in the series. Since an average is somewhere with in the range of that data, it is also called a measure of central value. Since average represents the entire data, its value lies somewhere in between the two average. Among them is use the arithmetic mean which is more popular to denote particular type of average. It is obtain dividing sum of obtain observations by the number of items which is presented as follows.

$$\bar{X} \text{ X} \frac{x}{N}$$

Where,

$\bar{X}$ = Arithmetic Mean

x = Summation for Total Values of the Variable / Observation

N = Number of Items

3.5.2.2 Standard Deviation

The standard deviation is the most important and widely used measure of studying dispersion. It is also known as root mean square deviation for the reason that the square root of the mean of the standard deviation from the arithmetic mean. It is also denoted by the small Greek letter ± (Sigma). The standard deviation measures the absolute dispersion or variability of a distribution. A small standard deviation means a high degree of uniformity of the observation as well as homogeneity of a serious, a large standard deviation means just the opposite. Hence, standard deviation is extremely useful in judging the representative of the mean.

Symbolically,

$$\pm \text{ X} \sqrt{\frac{d^2}{n}}$$

Where,

± = Standard Deviation

d^2 = Sum of Squares of the Deviation Measured from the Arithmetic Average

n = Numbers of Item

3.5.2.3 Co-efficient of Variation (C.V)

The co-efficient of variation is the corresponding relative measure of dispersion, comparable across distribution, which is defines as the ratio of the standard deviation to the mean expressed in percentage. It is used in such problems where we want to compare the variability of two or more than two series. The series for which the co-efficient of variation is greater is said to be more variable or conversely less consistent, less uniform, less stable or less homogeneous. On the other hand, the series for which co- efficient of variation is less is said to be less variable or more consistent, more uniform, more stable or more homogenous.

We can denotes this by following formula,

$$CV\ \mathrm{X}\frac{\pm}{x}\mid 100$$

Where,

CV = Co-efficient of Variation

± = Standard Deviation

$\overline{X}$ = Mean / Average

3.5.2.4 Co-efficient of Correlation (r)

Correlation is the statistical tool that we can use to describe the degree to which one variable is linearly related to another. The coefficient of correlation measures the degree of relationship Among the Variables. Among the various methods of finding out coefficient of correlation, Karl Pearson's method is applied in the study. The result of coefficient of correlation is always between +1 and –1. When r =+1, it means there is perfect relationship among variables and vice-versa. When r=0, it means there is no relationship among variables. Co –efficient of Correlation are calculated among variables like ROE, SDA, LDA, DA, SIZE, SG and EPS.

3.5.2.5 Probable Error of the Co-efficient of Correlation

After the calculation of co-efficient of correlation the next thing is to find out extent to which it is dependable. For this purpose the probable error of the coefficient of correlation is calculated. If the probable error is added to and subtracted from the co-efficient of correlation it would give two such limits with in which we can reasonably accept the value of co- efficient of correlation to vary. The formula for finding out the probable of error of the Karl Pearson's co-efficient of correlation is:

$$P.E.r \text{ X} 0.6745 \frac{1 \text{Z} r^2}{\sqrt{N}}$$

Where,

P.E.r = Probable Error of Co-efficient of Correlation

r = Co-efficient of Correlation

n = Number of Pairs of Observations

In other to conclude whether co-efficient of correlation is significant or not. The following points should be kept in mind.

- If the co-efficient of correlations is less than its probable error, it is not at all significant.
- If the co-efficient of correlations is more than six times of probable error, it is definitely significant.
- If the probable error is not much and if the coefficient of correlation is 0.5 or more it is generally to be significant.

3.5.2.6 Regression Analysis

Regression analysis is the technique of studying how the variations in one series are related to variations in another series. It shows how the variables are related and determines the nature and the strength of relationship between two variables or among variables. Thus regression is the estimation of unknown values or prediction of one variable from known values of other variables.

Regression analysis is a mathematical measure of the average relationship between two or more variables in terms of the original units of the data. The regression analysis confined to the study of only two variables at a time is called Simple

Regression. The known value which is used for prediction is called independent variable and the unknown value which is to be estimated by known value is called dependent. Multiple regression analysis is a logical extension of the simple linear regression analysis. In this study our concern is both simple regression and multiple regression analysis. The following regression models will be used for analyzing.

LOG EPS $= \beta_o + \beta_1 SIZE + e$

ROE $= \beta_o + \beta_1 LDA + \beta_2 SIZE + e$

ROE $= \beta_o + \beta_1 SDA + \beta_2 SIZE + e$

LOG EPS $= \beta_o + \beta_1 LDA + \beta_2 SIZE + e$

Where,

LOG EPS = Log 10 of Earning Per Share

ROE = EBIT Divided by Equity

SDA = Short Term Debt Divided by Total Assets

LDA = Long Term Debt Divided by Total Assets

SIZE = Log 10 of Sales (Interest Received)

E = Error Term

CHAPTER 4
PRESENTATION AND ANALYSIS OF DATA

Data Analysis is the process to change the raw data from an unprocessed form to an understandable presentation. The analysis of data consists of organizing, tabulating and performing statistical analysis and also presenting the data in a meaningful way. The main objective of this study is to analyze the capital structure and profitability of sample banks.

In this chapter data of sample banks are presented and analyzed according to the objectives set in the introduction chapter. To make a data more realistic and complete qualitative and quantitative analysis is done through different financial ratio and statistical analysis. However there are many ratios but due to some sort coming and constraints, only selected ratios have been taken for analyzing the strength and weakness of the sample banks.

4.1 Financial Analysis of Sample Banks

Financial analysis is the process of determining financial strengths and weakness of company by establishing strategic relationship between the components of analysis balance sheet and other operative data.

Financial statement analysis involves a comparison of analysis firm's performance with that of other firms in the same line of business which often is identified by the firm's industry classification. Generally speaking, the analysis is used to determine the firm's financial position in order to identify its current strength and weakness and to suggest actions that might enable the firm to take advantage of the strength and correct its weakness (Weston and Brigham1996).

To judge the financial position of the firm, financial leverage or capital structure ratios are needed to be analyzed. These ratios indicate mix of funds provided by owners and lenders. Below mentioned are the some of the major capital structure ratios used during the study:

4.1.1 Debt Assets Ratio

The ratio of total debt to total asset, generally called the debt assets ratio. It measures proportion of the creditor's funds used by the institution to acquire the assets. The increased proportion of debt indicated the risky ness or burden to the institution. The debt is considering more risky and cheap source of financing. Risky in the sense that the debt financing needs regular payments of interest in any condition of economic. The debt Assets ratios of sample banks are as below:

Table - 1
Debt Assets Ratio
(in times)

Fiscal Year	Nabil Bank Limited	Nepal Investment Bank Limited	Himalayan Bank Limited
2002/03	0.9207	0.9292	0.9545
2003/04	0.9116	0.9450	0.9465
2004/05	0.9035	0.9275	0.9446
2005/06	0.9160	0.9336	0.9400
2006/07	0.9245	0.9319	0.9360
Mean	0.9153	0.9334	0.9443
S.D.	0.0082	0.0069	0.0070
C.V. (%)	0.8914	0.7378	0.7418

Sources: Annual Report of Concerned Bank, Refer Appendix-1

Table 1 shows that debt financing ratio of all sample banks are high. The ratios of all sample banks are fluctuating. The highest ratio of NBL is 0.9245 in 2006/07 and lowest is 0.9035 with mean ratio of 0.9153 which is lowest mean ratio among the sample banks. The ratio of NIBL is ranged between 0.9275 and 0.9450 in year 2004/05 and 2003/04 respectively. Similarly, HBL have highest ratio in year 0.9545 in year 2002/03 and lowest ratio in year 0.9360 in year 2006/07 with mean ratio of 0.9443. HBL has a highest mean ratio with 0.9443 among sample banks. The C.V. of NBL, NIBL and HBL are 0.8914%, 0.7378% and 0.7418%. Above statement conclude that the debt financing of NBL in assets is lowest and highest in HBL. Therefore HBL is utilizing a highest debt among the sample banks. Even though NIBL use less proportion of debt financing with compare to HBL and NBL. NIBL is successful in maintaining a consistency which is shown by lowest C.V. (0.7378) among sample banks.

4.1.2 Debt-Equity Ratio

The debt to equity ratio is a financial ratio which indicates the relative proportion of equity and debt used by the institution. The ratio measures to what extent a bank is financially sound or solvent in terms of long term obligation. It shows the relationship between outsider's and owner's claim against the company's assets. It is used as a measure of debt exposure of the bank. The Debt Equity ratio implies the debt equity proportion used. High Debt Equity ratio indicated more used of money from creditors side and vice versa. High Debt Equity ratio considered good if the institution is able have higher return than the cost paid on debt. Debt to equity ratio is calculated on the basis of long term debt and shareholders' equity.

Table - 2
Debt Equity Ratio
(in times)

Fiscal Year	Nabil Bank Limited	Nepal Investment Bank Limited	Himalayan Bank Limited
2002/03	11.6030	13.1172	20.9682
2003/04	10.3078	17.1819	17.7002
2004/05	9.3680	12.7896	17.0604
2005/06	10.9094	14.0697	15.6803
2006/07	12.2488	13.6907	14.6157
Mean	10.8874	14.1698	17.2050
S.D.	1.1192	1.7554	2.4216
C.V. (%)	10.2797	12.3880	14.0750

Sources: Annual Report of Concerned Bank, Refer Appendix-2

Table 2 shows that the ratio of NBL is in fluctuating mode. The highest ratio is recorded in year 2006/07 (12.2488) and lowest ratio is recorded in year 2004/05 (9.3680) with mean ratio of 10.8874 which is lowest among the sample banks. It declared that NBL has lowest debt cost and higher investment from equity fund. In the same way the ratio of NIBL is also in fluctuating trend. It has ratio ranged between 12.7896 (2004/05) to 17.1819 (2003/04) with mean ratio of 14.1698. The ratio of HBL is in decreasing mode. The ratio is ranged between 14.6157 in year 2006/07 to 20.9682 in year 2002/03 with highest mean ratio 17.2050. Since highest mean ratio is recorded by HBL, they have more investment from debt than equity fund which cost a higher than equity. Higher debt investment brings a higher cost to the banks. The C.V. of NBL, NIBL and HBL are 10.2797%, 12.3880% and 14.0750%. Therefore NBL has lowest C.V. which defined that NBL has consistency in debt-equity ratio. NIBL also has maintained stability to some extent. But HBL is not very successful as NIBL and NBL to maintain a consistency.

4.1.3 Short Term Debt to Total Assets Ratio

The ratio of short term debt and total assets measures the relative share of the short term debt in total assets of the banks. This ratio shows the relationship between the short term debt and total assets by the banks. This ratio plays crucial role as it tells about the proportion of short term debt to total assets. Higher the ratio implies the higher contribution of short term debt to total assets and lower the ratio indicates the lower proportion of short term debt in the total assets.

Table - 3
Short Term Debt to Total Assets Ratio
(in times)

Fiscal Year	Nabil Bank Limited	Nepal Investment Bank Limited	Himalayan Bank Limited
2002/03	0.7778	0.7418	0.8159
2003/04	0.7670	0.7704	0.7544
2004/05	0.7763	0.7292	0.7253
2005/06	0.7570	0.6792	0.7245
2006/07	0.7214	0.6590	0.6913
Mean	0.7599	0.7159	0.7423
S.D.	0.0231	0.0458	0.0468
C.V. (%)	3.0392	6.4014	6.3066

Sources: Annual Report of Concerned Bank, Refer Appendix-3

Table 3 shows that the ratio of NBL is ranged between the 0.7214 in 2006/07and 0.7778 in 2002/03 with mean ratio of 0.7599, NIBL is ranged between the 0.6590 in 2006/07 and 0.7704 in 2003/04 with mean ratio of 0.7159 and HBL is ranged between 0.6913 in 2006/07 and 0.8159 in 2002/03 with mean ratio of 0.7423. The ratio of NBL and NIBL has fluctuating trend where as HBL have decreasing trend. Since, the mean ratio of NBL is higher than the average of all sample banks. It supports the conclusion is that; NBL has high proportion of short term debt in total assets. NIBL has lowest proportion of short term debt in total assets which is shown by lowest mean among sample banks. According to C.V. NBL has 3.0392% where as NIBL and HBL has 6.4014%and 6.3066% respectively. Among them NBL has lowest C.V. (3.0392%) which means they are successful in maintaining a stability of short term debt to total assets in comparison to other sample banks.

4.1.4 Long Term Debt to Total Assets Ratio

The relationship between long term debt and total assets has a decisive impact on the financial structure of the companies. This relationship indicates what proportion of total assets is covered by long term debt. The higher ratio of long term debt to total assets indicates the higher claim of long term debt holders upon the total assets and vise versa. The long term debt denotes all the debts, which matures more than one year. The relationship of long term debt and total assets is presented in the following table.

Table - 4
Long Term Debt to Total Assets Ratio
(in times)

Fiscal Year	Nabil Bank Limited	Nepal Investment Bank Limited	Himalayan Bank Limited
2002/03	0.1428	0.1874	0.1386
2003/04	0.1446	0.1746	0.1921
2004/05	0.1272	0.1983	0.2193
2005/06	0.1590	0.2544	0.2156
2006/07	0.2031	0.2729	0.2447
Mean	0.1554	0.2175	0.2021
S.D.	0.0290	0.0435	0.0401
C.V. (%)	18.6583	19.9765	19.8264

Sources: Annual Report of Concerned Bank, Refer Appendix-4

Table 4 shows that of NBL is ranged between 0.1272 and 0.2031 in the fiscal year 2004/2005 and 2005/2006.the ratio is in fluctuating mode with the mean ratio of 0.1554 which is lowest mean ratio among the sample banks. NIBL has recorded the ratio between 0.1746 in fiscal year 2003/2004 and 0.2729 in fiscal year 2006/2007 with the mean ratio of 0.2175 which is highest mean ratio among the sample banks. From the fiscal year 2004/2005 the ratio is in increasing trend. Similarly the ratio of HBL is constituted between 0.1386 in fiscal year 2002/2003 and 0.2447 in fiscal year 2006/2007 with the mean ratio of 0.2021. Since, the mean ratio of NIBL is higher than the average of all sample banks. It supports the conclusion is that; NIBL has high proportion of long term debt in total assets. NBL has lowest proportion of long term debt in total assets which is shown by lowest mean among sample banks. According to C.V. NBL has 18.6583% where as NIBL and HBL has 19.9765 %and 19.8264 % respectively. Among them NBL has lowest C.V. (18.6583%) which means they are successful in maintaining a stability of long term debt to total assets in comparison to other sample banks.

4.1.5 Interest Coverage Ratio

The Interest coverage ratio is useful tools to measures long - term debt serving capacity of the firm. Interest is fixed charges of the companies, which is charged in long term and short term loans. Generally, Interest coverage ratio measures the debt serving capacity of a firm and it is concerned with long-term loans. It shows how many times the interest charges are covered by EBIT out of which they will be paid. This ratio uses the concept of net profit before tax because interest is tax deductible of tax is calculated after paying interest on loan. This ratio examines the interest paying capacity of the firm by how many times the interest charges are covered by EBIT. Interest coverage ratio is calculated dividing EBIT by interest.

Table - 5
Interest Coverage Ratio
(in times)

Fiscal Year	Nabil Bank Limited	Nepal Investment Bank Limited	Himalayan Bank Limited
2002/03	2.9392	1.8993	1.6497
2003/04	3.3222	1.7096	1.8556
2004/05	4.1115	1.9411	1.9299
2005/06	3.5143	2.0285	2.0363
2006/07	2.7906	2.0552	1.9348
Mean	3.3356	1.9267	1.8813
S.D.	0.5216	0.1369	0.1445
C.V. (%)	15.6383	7.1044	7.6823

Sources: Annual Report of Concerned Bank, Refer Appendix-5

Table 5 shows the Interest coverage ratio of the sample banks. NBL has a highest ratio in the fiscal year 2004/2005 which is 4.1115 and lowest ratio is 2.7906 in fiscal year 2006/2007. It has mean ratio of 3.3356 which is highest among sample banks. Interest coverage ratio of NBL is in fluctuating trend. NIBL has recorded highest Interest coverage ratio in fiscal year 2006/2007 which is 2.0552 and lowest ratio is 1.7096 in fiscal year 2003/2004 with the mean ratio of 1.9267. The ratio of NIBL is in increasing trend. Similarly, Interest coverage ratio of HBL is ranged between 1.6497 and 2.0363 in fiscal year 2002/2003 and 2005/2006 with the mean ratio of 1.8813 which is lowest among sample banks that means HBL has a poor debt serving capacity. The ratio of HBL is in increasing trend till 2005/2006 then after decrease. The C.V. of NBL, NIBL and HBL are 15.6383%, 7.1044% and 7.6823% respectively. Among them NBL has highest C.V. which is 15.6383 %.

4.1.6 Net Profit to Total Assets (ROA)

This ratio is a measuring tool of profitability with respect to each financial resources investment of the assets. If Bank's working fund (total assets) is well managed and utilized efficiently, return on such assets will be higher and vice versa. The following comparative table shows the return on total assets ratio of different Banks recorded over the study period.

Table - 6
Net Profit to Total Assets Ratio
(in times)

Fiscal Year	Nabil Bank Limited	Nepal Investment Bank Limited	Himalayan Bank Limited
2002/03	0.0251	0.0130	0.0091
2003/04	0.0272	0.0115	0.0106
2004/05	0.0302	0.0143	0.0111
2005/06	0.0284	0.0164	0.0155
2006/07	0.0247	0.0182	0.0147
Mean	0.0271	0.0147	0.0122
S.D.	0.0023	0.0027	0.0028
C.V. (%)	8.4004	18.1659	22.7053

Sources: Annual Report of Concerned Bank, Refer Appendix-6

Table 6 shows the Net profit to total assets ratio of all banks. The ratio of NBL is ranged between 0.0247 and 0.0302 in year 2006/07 and 2004/05 respectively with mean ratio 0.0271. NBL has a highest mean ratio with 0.0271 which determined that NBL are successful in earning the net profit with efficient utilization of total assets with compare to NIBL and HBL. The net profit to total assets ratio of NBL is in fluctuating trend. Similarly, NIBL has recorded a highest ratio in 2006/07 which is 0.0182 and lowest ratio is 0.0115 in year 2003/04 with the mean ratio of 0.0147. The net profit to total assets ratio of NIBL is in increasing trend from fiscal year 2004/2005. Similarly the Net profit to total assets ratio of HBL is ranged between 0.0091 and 0.0155 in fiscal year 2002/2003 and 2005/2006 .HBL has mean ratio of 0.0122 which is lowest among the sample banks. Which means it is less successful in utilizing the total assets for earning the net profit in compare to sample banks. But as concern with consistency, NBL are able to maintain the consistency in profit which is shown by lowest CV (8.4004%) among the sample banks. NIBL and HBL have a greater variation in earning the profit on total working fund. The CV of these banks is 18.1659 % and 22.7053 %.

4.1.7 Return on Shareholder's Equity or ROE

Share holders fund represent that par of long term source of fund, which is collected by issuing equity shares and preferences shares. Shareholders are actually the owners of the company. Shareholders have ultimate claim in the return of the company. Return on Shareholder's Equity (ROE) is used to measure the return earned by shareholders or this ratio is calculated to find out the profitability on the owner's capital or investment. The high ROE represent the high profitability of the banks and vice –versa.

Table - 7
Return on Shareholder's Equity or ROE
(in times)

Fiscal Year	Nabil Bank Limited	Nepal Investment Bank Limited	Himalayan Bank Limited
2002/03	0.7098	0.5628	0.8599
2003/04	0.6348	0.7649	0.6888
2004/05	0.6041	0.5832	0.7034
2005/06	0.6694	0.7036	0.7481
2006/07	0.7539	0.7502	0.6917
Mean	0.6744	0.6729	0.7384
S.D.	0.0594	0.0943	0.0719
C.V. (%)	8.8064	14.0114	9.7436

Sources: Annual Report of Concerned Bank, Refer Appendix-7

Table 7 reveals the Return on Shareholder's Equity (ROE) of all sample banks. The ratio of NBL has ranged between 0.6041 in fiscal year 2004/2005 to 0.7539 in fiscal year 2006/2007 with the mean ratio of 0.6744. The ratio of NBL is in fluctuating situation. The highest and lowest ratios recorded by NIBL are 0.7649 and 0.5628 in fiscal year 2003/2004 and 2002/03 respectively. NIBL has mean ratio of 0.6729 which is lowest mean ratio among sample banks. Lowest mean ratio indicates the less return on shareholder's equity. The ratio of NIBL is in fluctuating situation. Similarly, highest ratio for HBL has recorded in fiscal year 2002/2003 (0.8599) and lowest ratio in fiscal year 2003/04 (0.6888) with mean ratio of 0.7384, which is highest mean ratio among sample banks. High mean ratio indicates shareholder's of HBL get high return. The ratio of HBL is in fluctuating situation. As far as consistency level. NBL is successful in maintaining consistency .This is shown by lowest CV of NBL i.e. 8.8064 %. In contrast NIBL and HBL are less effective to maintain the consistency which is shown by highest CV 14.0114 % and 9.7436 % respectively.

4.1.8 Total Interest Earned to Total Working Fund Ratio

The ratio shows the earning capacity of a Bank on its total assets (working fund). This ratio exhibits the extent on which banks are successful in mobilizing their working funds to generate income as much as possible. The higher ratio will indicate the high earning power of the banks on its total assets. Total interest earned is calculated by adding the total income from loans, advances, cash, credit, overdrafts and government securities etc. This ratio is calculated by dividing net profit by total working fund. The following table shows the comparative ratios of banks for the different periods.

Table - 8
Total Interest Earned to Total Working Fund Ratio
(in times)

Fiscal Year	Nabil Bank Limited	Nepal Investment Bank Limited	Himalayan Bank Limited
2002/03	0.0615	0.0510	0.0514
2003/04	0.0598	0.0552	0.0503
2004/05	0.0622	0.0545	0.0519
2005/06	0.0587	0.0550	0.0552
2006/07	0.0583	0.0574	0.0530
Mean	0.0601	0.0546	0.0524
S.D.	0.0017	0.0023	0.0019
C.V. (%)	2.8486	4.2670	3.5335

Sources: Annual Report of Concerned Bank, Refer Appendix-8

Table 8 reveals the total interest earned to total working fund ratio of sample banks. The highest total interest earned to total working fund ratio of NBL is 0.0622 in fiscal year 2004/2005 and lowest ratio is 0.0583 in fiscal year 2006/2007. The mean ratio of NBL is 0.0601 which is highest among sample banks. Highest mean ratio shows NBL is successful in mobilizing their working funds to generate income as much as possible. The ratio of NBL is in the fluctuating trend throughout the study period. The highest total interest earned to total working fund ratio of NIBL has ranged between 0.0510 in fiscal year 2002/2003 and 0.0574 in year 2006/2007 with mean ratio of 0.0546. The ratio of NIBL is in the fluctuating trend throughout the study period. Similarly, HBL also has a fluctuating trend. The ratio of HBL is ranged between 0.0503 and 0.0552 in year 2003/2004 to 2005/2006 respectively with the mean ratio of 0.0524. Lowest mean ratio indicates that the bank is less successful in mobilizing their working funds to generate income. NBL has recorded the C.V. of 2.8486 %. Similarly, C.V. of NIBL and HBL is 4.2670 % and 3.5335 % respectively. Among them NBL found to be a leader in earning an interest with compare to NIBL and HBL

which is shown by lowest C.V. (2.8490%) of NBL. Lowest C.V. indicates NBL have a consistency in earning an interest by mobilizing a total working fund effectively. The highest C.V. is found in NIBL (4.2671%) which shows a greater variability in earning an interest.

4.1.9 Total Interest Paid to Total Working Fund Ratio

Interest earning is the major source of a commercial bank. The ratio is used to measure the percentage of total interest expenses against the total working fund. The following are the comparative ratio figures of banks recorded in different periods. Higher the ratio is the indication of high interest expenses on total working fund and vice- versa. Total interest expenses consists the expenses on the deposits, loan and advances, borrowing and other deposits.

Table - 9
Total Interest Paid to Total Working Fund Ratio
(in times)

Fiscal Year	Nabil Bank Limited	Nepal Investment Bank Limited	Himalayan Bank Limited
2002/03	0.0192	0.0210	0.0237
2003/04	0.0169	0.0246	0.0199
2004/05	0.0142	0.0218	0.0202
2005/06	0.0160	0.0230	0.0220
2006/07	0.0204	0.0248	0.0229
Mean	0.0173	0.0230	0.0217
S.D.	0.0025	0.0017	0.0017
C.V. (%)	14.3364	7.3554	7.7521

Sources: Annual Report of Concerned Bank, Refer Appendix-9

Table 9 shows the comparative analysis of total interest paid to total working fund of sample banks. The highest and lowest ratio of NBL has recorded in fiscal year 2006/2007 which is 0.0204 and 0.0142 in fiscal year and 2004/20505 respectively with mean ratio of 0.0173 which is lowest mean ratio among sample banks. Lowest ratio shows NBL has less interest expenses. The ratio of NBL is in fluctuating trend. The highest and lowest ratios of NIBL are 0.0248 and 0.0210 in fiscal year 2006/2007 and 2002/2003 respectively with mean ratio of 0.0230.NIBL has highest mean ratio among sample banks that means the bank has a higher interest expenses and the ratio of NIBL is in fluctuating trend . Similarly, HBL has a fluctuating ratio which is ranged between 0.0199 in 2003/2004 and 0.0237 in 2002/2003 with the mean ratio of 0.0217. The above definition determined that NIBL has paid a higher

interest on working fund in compare to NBL and HBL which is shown by highest mean ratio. NIBL has consistency in interest paid because C.V. of NIBL is lowest among sample banks which is 7.3554%. NBL and HBL have C.V. of 14.3364 % and 7.7521 % respectively.

4.1.10 Earning Per Share (EPS)

The profitability of bank from the point of view of the ordinary shareholders is earning per share. The ratio explains net income for each unit of share. Earning per share of an organization gives the strength of the share in the market. It shows how much of the total earnings belong to the ordinary shareholders. This ratio can be calculated by dividing net income by number of share outstanding which is presented in following table.

Table - 10
Earning Per Share
(in Rs)

Fiscal Year	Nabil Bank Limited	Nepal Investment Bank Limited	Himalayan Bank Limited
2002/03	84.66	39.56	49.45
2003/04	92.61	51.70	49.05
2004/05	105.49	39.50	47.91
2005/06	129.21	59.35	59.24
2006/07	137.08	62.57	60.66
Mean	109.8088	50.5367	53.2609
S.D.	22.7323	10.7955	6.1524
C.V. (%)	20.7017	21.3617	11.5513

Sources: Annual Report of Concerned Bank, Refer Appendix-10

Table 10 exhibits the earning per share of all sample banks. According to above table NBL has an increasing ratio of earning per share. NBL has recorded highest ratio of 137.08 in fiscal year 2006/2007 and lowest ratio of 84.66 in fiscal year 2002/2003. NBL has mean ratio of 109.8088, which is highest among the sample banks .Highest mean ratio indicates it has a good position in market. NIBL has a ratio with fluctuating trend. The highest ratio and lowest ratio is in fiscal year 2006/2007 and 2004 /2005 which 62.57 and 39.50 is respectively with mean ratio of 50.5367, which is lowest mean ratio among sample banks. HBL has a ratio with fluctuating trend. The highest ratio and lowest ratio is in fiscal year 2006/2007 and 2004 /2005 which 60.66 and 47.91 is respectively with mean ratio of 53.2609. NBL, NIBL and HBL have C.V. of 20.7017 %, 21.3617% and 11.5513 % respectively. Among them HBL has lowest C.V. and highest is in NIBL.

4.2 Descriptive Statistics of Variables

Statistical methods can be used to summarize or describe a collected data. This is called descriptive statistics. In addition, patterns in the data may be modeled in a way that accounts for randomness and uncertainty in the observations and then used to draw inferences about the process of population being studied; this is called inferential statistics. Since the descriptive statistics are powerful tools to have ideas of distributions of the variables, some of the most frequently used statistics like mean, standard deviation, first quartile, median and third quartile are chosen in this study which is analyzed and presented in the Table 11.

Table - 11
Descriptive Statistics of various variables

	Mean	**SD**	**First Quartile**	**Median**	**Third Quartile**
ROE	0.6952	0.0776	0.6521	0.7034	0.7492
SDA	0.7394	0.0416	0.7230	0.7418	0.7687
LDA	0.1916	0.0446	0.1518	0.1921	0.2175
DA	0.9310	0.0142	0.9226	0.9319	0.9423
SIZE	3.0597	0.1534	3.0042	3.0796	3.1802
SG	0.1984	0.1657	0.0855	0.1865	0.2499

Where,

ROE = EBIT Divided by Equity

SDA = Short Term Debt Divided by Total Assets

LDA = Long Term Debt Divided by Total Assets

DA = Total Debt Divided by Total Assets

SIZE = Log 10 of sales (Interest Received)

SG = Sales (Interest) Growth for Bank

SD = Standard Deviation

Table 11 presents descriptive statistics for the various ratios of sample banks used in the study. The table provides average value that is mean of the various listed ratios along with first quartile, second quartile and median of the ratios. In addition, the table also contains the values of the standard deviation. Above table provides a summary of the descriptive statistics of the dependent and independent variables for the sample banks. This show the average indicators of variables computed from the financial statements.

The return rate measured by return on equity (ROE) reveals an average of 69.52 % with median 70.34%. Standard deviation, First quartile and third quartile of ROE are 0.0776, 0.6521 and 0.7492 respectively. This picture suggests a good performance during the period under study. The ROE measures the contributions of net income invested by the bank's stockholders; a measure of the efficiency of the owners' invested capital.

The variable SDA measures the ratio of short–term debt to total assets. The Standard deviation, First quartile and third quartile of SDA are 0.0416, 0.7230 and 0.7687 respectively. The average or mean value of this ratio is 0.7394 with median 0.7418. The value 0.7418 indicates that approximately 74 % percent of total assets are represented by short- term debts, attesting to the fact that sample bank largely depend on short–term debt for financing their operations due to the difficulty in accessing long–term credit from financial intuitions. Another reason is due to the under- developed nature of the long–term debt market.

The variable LDA measures the ratio of long–term debt to total assets. The Standard deviation, First quartile and third quartile of LDA are 0.0446, 0.1518 and 0.2175 respectively. The average or mean value of this ratio is 0.1916 with median 0.1921. The value 0.1921 indicates that approximately 20 % percent of total assets are represented by long-term debts.

DA stands for total debt divided by total assets. Standard deviation, First quartile and third quartile of DA are 0.0142, 0.9226 and 0.9423 respectively. Total debt to total assets ratio presents a mean ratio of present average or mean of 0.9310.This suggests that about 93.10% of total assets are financed by debt .The increased proportion of debt indicated the risky ness or burden to the institution. The debt is considering more risky and cheap source of financing. Risky in the sense that debt financing need regular payment of interest in any conditions of economic.

4.3 Capital Structure and Profitability

A financial manager must strive to obtain the best financing mix or optimum capital structure for the bank. The bank's capital structure is optimum when the market value of share is maximized. The use of debt affects the return and risks of shareholders; this will increase the return on equity but also risk at the same time. When the shareholders' return is maximized with the minimum risk, the market value per share will be maximized and firm's capital structure would be optimum.

Profitability is a deviation of the term profit which explains ability to make a profit is a primarily a measuring rod of success of business enterprise. It is the basic test of performance of any business simply stating. Profit is money excess of sale over money spent but the term "Profit" is very controversial and there are several different interpretations about it. Trade off theory said that higher profitability of firms implies higher debt capacity and less risky to the debt holders. So, as per this theory, capital structure and profitability are positively associated. But pecking order theory suggests that this relation is negative. Since, as stated earlier, banks prefer internal financing and follow the sticky dividend policy. If the internal funds are not enough to finance financial requirements of the firm, it prefers debt financing to equity financing.

4.4 Correlation Coefficient of Variables

Correlation is defined as the relationship among the one dependent variable and (one or more than one) independent variables. Correlation Co-efficient denoted by (r) indicates the direction of relationship between two variables. Correlation analysis is defined as the statistical technique that measures the degree of relation associated between the variables but does not explain about the cause and the effect. The Correlation Coefficient is sometimes referred to as the Pearson Product Moment Correlation Coefficient in honor of its developer Karl Pearson. In this analysis, the correlation co-efficient among various ratios are calculated and analyzed.

Table – 12

Correlation Matrix of various variables

VARIABLES	LDA	SDA	LOG S	LOG EPS
ROE	0.372* (0.150)	0.155 (0.170)	0.472* (0.135)	0.133 (0.171)
LDA		-0.600 (0.111)	0.673* (0.095)	0.030 (0.174)
SDA			-0.288 (0.160)	-0.018 (0.174)
LOG S				0.362* (0.151)

Sources: Appendix-11 and 12

Probable Error is given in the bracket

* Correlation is significant since it is greater than Probable Error

Table 12 shows the correlation among each of the variables. Our main concern is the correlation between Return o equity (ROE) and other variables taken one at a time. ROE is calculated to find out the profitability on the owner's investment. The high ROE represents the high profitability of the firm and vice-versa. ROE is positively correlated with LDA, SDA, LOG S and LOG EPS. The correlation between ROE and LDA, SDA, LOG S and LOG EPS is 0.372, 0.155, 0.472 and 0.133 respectively. Positive correlation between ROE and LDA indicates proportionate change in LDA will also change in ROE. Similarly change in SDA, LOG S, and LOG EPS will positively change in ROE.

Long term debt denotes all the debts which mature more than one year. LDA has negative correlation with SDA where as positively correlated with LOG S and LOG EPS. Negative correlation with SDA indicates increase in SDA will decrease LDA correlation between SDA and LDA is -0.600. It has positive correlation with LOG S and LOG EPS exhibits increase in LOG S and LOG EPS will also increase LDA. The correlation between these variables is 0.673 and 0.030 respectively. Above table clearly show that LDA has significant correlation only with Log S.

SDA has negative correlation with LDA, LOG S and LOG EPS which means increase in these variables will decrease the SDA. Correlation between SDA and LDA, LOG S and LOG EPS are -0.600, -0.288 and -0.018 respectively. SDA has insignificant relationship with these variables.

Correlation between LOG S and LOG EPS is 0.362 which shows it has positive relationship. Positive relationship exhibits proportionate change in LOG S will also change in LOG EPS. Correlation is significant since r value is greater than probable error.

Hence we can conclude that the relationship between the return on equity and the various variables has positive correlation. SDA has negative correlation with all the variables except ROE.

4.5 Regression Analysis

Regression analysis is the technique of studying how the variations in one series are related to variations in another series. It shows how the variables are related and determines the nature and the strength of relationship between two variables. Thus regression is the estimation of unknown values or prediction of one variable from known values of other variables.

4.5.1 Simple Regression Analysis

The regression analysis confined to the study of only two variables at a time is called Simple Regression. The regression analysis between Log 10 of earning per share and size (log10 of interest income) is analysis as simple regression. The earning per share exhibits that the owner is theoretical entitled to get from company. EPS is also identifying to measure the profitability of the shareholders investment. It simply shows that the profitability of bank on a per share basis. Inertest is main income of the bank which banks can get by mobilizing their working funds as much as possible. Total interest earned is calculated by adding the total income from loans, advances, cash, credit, overdrafts and government securities etc.

The main point of this analysis is to determine the relation between Log 10 of earning per share and size (log10 of interest income). Obviously, it seems that as size

increases EPS need to increase. So, in this analysis EPS is considered to be dependent variable and size as independent variable. To examine the relationship between Log 10 of earning per share and size and to analyze the performances relatively of the sample banks, the least square method has been adopted. Accordingly, the simple linear regression model is used to estimate the linear regression equation:

$$Y_t = \beta_o + \beta_1 X_t + e_t$$

$$\text{Or,} \quad \text{LOG EPS} = \beta_o + \beta_1 (\text{SIZE}) + e$$

Where,

Yt = LOG EPS = Log 10 of Earning per share

Xt= SIZE = Log 10 of interest income

β_o = Regression coefficient, the sample Y intercept

β_1 = Regression coefficient, the sample slope

e = The Error term

The simple regression result for the pooled data of the sample banks are presented in table 13. There are three banks under this head. The observation is undertaken for five years each. So there are 15 observations.

Table – 13

Simple regression result with LOG EPS as dependent variables

Variable	**Intercept (β_o)**	**Beta coefficient (β_1)**	**r2**	**S.E of beta coefficient**	**t-Stat**	**P -value**
LOG EPS and Size	0.858	0.316	0.044	0.466	0.678	0.513

Sources: Appendix-13

Now, we try to analyze the regression results. The table 13 reveals the effect of interest income on Earning per share of sample banks. The intercept of the interest income on Earning per share is observed as 0.858. It simply indicates the average figure of EPS when interest income equals zero. The slope β_1 of the interest income is observed as 0.316 which is in positive position. Positive slope indicates there is

positive relationship between Earning per share and interest income. In other words percentage increase in interest income will also increase in Earning per share by 31.6%. Co –efficient of determination (r^2) is 0.044, indicating that 4.4% of the variation in the EPS can be explained by variation in the Interest income. We can clearly see that P- value is greater than 5%; hence H0 is accepted that means there is no significant relationship between interest incomes on EPS.

4.5.2 Multiple Regression Analysis

Multiple regression analysis is a logical extension of the simple linear regression analysis. To avoid the biases and weakness of the simple regression equation, multiple equations is used. For our study following multiple regression model is used

ROE $= \beta_o + \beta_1 LDA + \beta_2 SIZE + e$……. (1)

ROE $= \beta_o + \beta_1 SDA + \beta_2 SIZE + e$…….. (2)

LOG EPS $= \beta_o + \beta_1 LDA + \beta_2 SIZE + e$…… (3)

Where,

LOG EPS	=	Log 10 of Earning per share
SIZE	=	Log 10 of interest income
LDA	=	Long Term Debt to Total Assets
SDA	=	Short Term Debt to Total Assets
β_o	=	Regression coefficient, the sample Y intercept
β_1	=	Regression coefficient, the sample slope
β_2	=	Regression coefficient, the sample slope
e	=	The Error term

Multiple Regression Analysis model 1

In model 2 LDA and Size are taken as independent variables and ROE is dependent variables. The result of Model 2 is given below:

Table – 14

Multiple regression result (model 1)

$ROE = \beta_o + \beta_1 LDA + \beta_2 SIZE + e$

Variable	Beta coefficient	S.E of beta coefficient	t-Stat	P -value	Status
Intercept (β_o)	1.190	0.591	2.013	0.075	Insignificant
LDA	1.244	0.470	2.648	0.027	significant
SIZE	-0.238	0.208	-1.143	0.283	Insignificant

R^2	0.497
F	4.442
P-value	0.045

Sources: Appendix-14

It can be observed from table 14 that the beta coefficient of LDA is positive, which indicating that ROE increase as LDA increase. The coefficient of multiple determination r^2 =0.497 indicates that the regression model has explained 49.7 % of total variation is ROE. This is satisfactory level of explanation for the model as a whole. Furthermore, the P- value for the regression is 0.045 which is less than critical of 0.05.Hence the result is significant.

Beta coefficient is significant with the P- value of LDA 0.027, which is smaller than the critical P- value of 0.05. Thus we can say that LDA has affect on ROE.

The beta coefficient of size implies that ROE increase by 0.238 as size decrease. The beta coefficient is insignificant as it greater than critical P-value of 0.05.

Model 2 shows a significantly Positive association between LDA and profitability. This implies that an increase in the long term debt position is associated with a increase in profitability.

Multiple Regression Analysis model 2

In model 3 SDA and Size are taken as independent variables and ROE is dependent variables. The result of Model 3 is given below:

Table – 15

Multiple regression result (model 2)

$ROE = \beta_o + \beta_1 SDA + \beta_2 SIZE + e$

Variable	Beta coefficient	S.E of beta coefficient	t-Stat	P -value	Status
Intercept (β_o)	0.270	0.797	0.339	0.743	Insignificant
SDA	-0.171	0.504	-0.116	0.039	significant
SIZE	0.157	0.193	0.814	0.437	Insignificant

R^2	0.116
F	0.590
P-value	0.574

Sources: Appendix-15

It can be observed from table 15 that the beta coefficient of SDA is negative, which indicating that ROE increase as SDA decrease. The coefficient of multiple determination r^2 =0.116 indicates that the regression model has explained 11.6 % of total variation is ROE. This is satisfactory level of explanation for the model as a whole. Furthermore, the P- value for the regression is 0.574 which is greater than critical of 0.05.Hence the result is insignificant.

Beta coefficient is significant with the P- value of SDA 0.039, which is smaller than the critical P- value of 0.05. Thus we can say that SDA has affect on ROE.

The beta coefficient of size implies that ROE increase by 0.157 as size increase. The beta coefficient is insignificant as it greater than critical P-value of 0.05.

Model 3 shows a negative association between SDA and profitability. This implies that an increase in the Short term debt position is associated with a decrease in profitability. This suggests that short term debt tends to be more expensive, and therefore decreasing short term debt with a relatively high interest rate will lead to decrease in profit levels.

Multiple Regression Analysis model 3

In model 4 LDA and Size are taken as independent variables and EPS is dependent variables. The result of Model 4 is given below:

Table – 16

Multiple regression result (model 3)

$$\text{LOG EPS} = \beta_o + \beta_1 \text{LDA} + \beta_2 \text{SIZE} + e$$

Variable	Beta coefficient	S.E of beta coefficient	t-Stat	P -value	Status
Intercept (β_o)	-0.894	2.009	-0.445	0.667	Insignificant
LDA	-1.953	1.596	-1.224	0.252	Insignificant
SIZE	0.977	0.706	1.384	0.200	Insignificant

R^2	0.180
F	0.991
P-value	0.408

Sources: Appendix-16

The constant of -0.894 has virtually no meaning. Mathematically it means that at zero level of all independent variables EPS is 0.894. But this is outside our observed range as we have no observation of EPS at Zero level of any variables. So this intercept term doesn't have meaning of its own. The negative beta- coefficient of LDA means that a percentage rise in LDA causes a reduction in EPS by 1.953, holding constant the other variables. Similarly positive beta- co-efficient of size means that percentages raise in size causes an increment in EPS by 0.977. The co-efficient of

multiple determination of r^2=0.180 indicates that 18% of the total variation in EPS has been explained by the regression model. This should be a satisfactory level of explanation for the model as a whole.

However, the P-value for the regression is 0.408, which is greater than the critical P-value of 0.05, which indicates that the regression equation provides a statistically insignificant explanation of variation in EPS of listed banking sectors. The P-Value of LDA is 0.252 which is greater than the critical P-value of 0.05 hence from this statistics we can conclude that LDA does not have any have affect on EPS. Therefore the result is not strong enough to establish the relationship between EPS and Capital Structure but it does not mean that there is no relationship between EPS and Capital Structure.

4.6 Major Findings of the Study

The study presents the result of the capital structure and Profitability of sample banks with special emphasis on the determinants of the capital structure. The study is based on secondary data collected through the official website of sample banks for 5 years from 2002/2003 to 2006/2007. The main findings of the study are carried out on the basis of the analysis of financial data of banks which are as follows:

Debt-assets ratio of the HBL is highest among the sample banks which is 0.9443, whereas NIBL have more consistences in maintaining the ratio. Similarly, NBL has maintained the debt-assets ratio to some extent. Therefore HBL is utilizing a highest debt among the sample banks. Even though NIBL use less proportion of debt financing with compare to HBL and NBL. NIBL is successful in maintaining a consistency which is shown by lowest C.V. (0.7378).

Even though HBL is able to maintain the debt-equity ratio than other sample banks but failed to maintain the variability. In part of NIBL they are able to maintain the consistency but they also failed to use the equity fund to creditors. In case of NBL is unable to maintain the debt equity ratio but successes in maintain the variability.

NBL has highest mean ratio of short term debt to total Assets Ratio where as NIBL has lowest mean ratio. It supports the conclusion is that; NBL has high proportion of

short term debt in total assets. NIBL has lowest proportion of short term debt in total assets. According to C.V. NBL has 3.0392% where as NIBL and HBL has 6.4014%and 6.3066% respectively. Among them NBL has lowest C.V. (3.0392%) which means they are successful in maintaining a stability of short term debt to total assets in comparison to other sample banks.

NBL has lowest mean ratio of long term debt to total assets ratio it mean NBL has lowest proportion of long term debt in total assets where as NIBL recorded highest mean ratio. High mean ratio supports the conclusion is that; NIBL has high proportion of long term debt in total assets. According to C.V. NBL has 18.6583% where as NIBL and HBL has 19.9765 %and 19.8264 % respectively. Among them NBL has lowest C.V. (18.6583%) which means they are successful in maintaining a stability of long term debt to total assets in comparison to other sample banks.

Regarding the examination of interest coverage ratio of sample banks, it is found that NBL has highest mean ratio but fail in maintaining consistency. HBL has a poor debt serving capacity 1.8813 times. The interest charges of the HBL are high which indicates excessive use of debt by the firm. The firm is not been able to offer assured payment of the interest to the creditors. But HBL is able to maintaining consistency which is shown by lowest C.V.

By analysis net profit to total asset ratio all the sample banks are able to earn the profit on total assets. Among them, NBL found to be best, since it has a higher mean ratio than average mean ratio. But as concern to consistency NBL also shows the consistency on earning the profit. In case of another two banks they have lowest earning on total assets and also have lowest consistency in earning the profit.

By examine the ROE of sample banks we found that the mean ratio of ROE of HBL is highest among the sample banks, which conclude shareholders' of HBL can get highest return. Also HBL is found to not so bad as concern with consistency among sample banks. NBL has maintained the best consistency level among the sample banks. NIBL has lower mean ratio and failed to maintain the consistency.

Even though all sample banks seem to earn the interest on total working fund, NBL has successful in earning the higher interest as well as maintain the consistency in earning. NIBL and HBL are failed to maintain the consistency in earning the interest than NBL. Highest mean ratio shows NBL is successful in mobilizing their working

funds to generate income as much as possible. Lowest mean ratio of HBL shows the bank is less successful in mobilizing their funds in profitable sector.

NBL and HBL seem to be successful to collect its working fund from less expensive sources. NIBL has highest mean ratio among sample banks that means the bank has a higher interest expenses. Even though NIBL has a higher interest expense they are successful in maintain the stability on expenses of interest which we can say by the lowest C.V.

The earning per share explains net income for each units of share. It shows the market position of the issued share. The average of NBL, NIBL and HBL is 109.8088, 50.5367 and 53.2609 respectively. Among sample banks NBL has highest earning per share and HBL has lowest earning per share. Highest mean ratio of NBL indicates that it has a good position in market. NBL, NIBL and HBL have C.V. of 20.7017 %, 21.3617% and 11.5513 % respectively. Among them HBL has lowest C.V. and highest is in NIBL.

Descriptive Statistical analysis is used to summarize or describe a collected data. This is called descriptive statistics. Descriptive statistics are powerful tools to have ideas of distributions of the variables, some of the most frequently used statistics like mean, standard deviation, first quartile, median and third quartile are chosen in this. It provides a summary of the descriptive statistics of the dependent and independent variables for the sample banks. This show the average indicators of variables computed from the financial statements. From descriptive statistics we can see that size has highest mean and LDA has lowest mean among the variables.

Correlation coefficient between variables shows clearly positive relationship between ROE and all variables. Correlation coefficient between ROE and LDA, SDA, LOG S and LOG EPS is 0.372, 0.155, 0.472 and 0.133 respectively. LDA has negative relation with SDA where as positive relation with LOG S and LOG EPS. The correlation between LDA with and LOG S and LOG EPS is 0.673 and 0.030 respectively. SDA has negative correlation with LDA, LOG S and LOG EPS. Correlation between LOG S and LOG EPS is 0.362 which shows it has positive relationship.

Simple regression analysis shows positive relationship between Log 10 of earning per share and size. In other words, the slope β_1 of the interest income is observed as

0.316 which is in positive position. Positive slope indicates there is positive relationship between Earning per share and interest income. It indicates that the EPS will increase by 31.6 % as size increase. The result is not significant as the P-value is greater than critical P-value 0.05. Co –efficient of determination (r^2) is 4.4%, which indicates that 4.4% of the variation in the EPS can be explained by variation in the Interest income.

Multiple regressions also revels that ROE has positive relationship with LDA which we can say by positive beta coefficient. And the result is significant as P-value is smaller than critical P-value 0.05. The coefficient of multiple determination r^2 =0.497 indicates that the regression model has explained 49.7 % of total variation is ROE. Furthermore, the P- value for the regression is 0.045 which is less than critical of 0.05.Hence the result is significant.

Multiple regressions indicate that ROE has negative relationship with SDA which we can say by negative beta coefficient. And the result is significant as P-value is smaller than critical P-value 0.05. The coefficient of multiple determination r^2 =0.116 indicates that the regression model has explained 11.6 % of total variation is ROE. Furthermore, the P- value for the regression is 0.574 which is greater than critical of 0.05.Hence the result is not significant.

Multiple Regression Analysis model no.4 indicates that there is negative relation between LOG EPS and LDA. The negative beta- coefficient of LDA means that a percentage rise in LDA causes a reduction in EPS by 1.953, The co-efficient of multiple determination of r^2=0.180 indicates that 18% of the total variation in EPS has been explained by the regression model.

CHAPTER 5
SUMMARY, CONCLUSION & RECOMMENDATION

This chapter is a complete suggestive package, which contains summary, conclusion and recommendation. This chapter also highlighted some selected actionable conclusions and recommendation on the basis of the major findings, which are derived from the analysis of NBL, NIBL and HBL. Summary covers the brief explanation to all the chapters of the study and shows the actual facts that have been taken from the analytical section. And the analysis is performed with the help of financial and statistical tools. Conclusions are based on the principal findings of the study representing the strengths and weakness of the performance of the commercial banks. Recommendations are presented in the form of suggestions, which are prepared on the basis of findings.

5.1 Summary

Financial institution includes banks, finance companies, co-operative organization and insurance companies. All of them do contribute something to the economy of the country. Industrialization is an important factor for achieving the basic objective of a country's economic and social progress. Industrialization not only provides necessary products and services to the community but also create employment opportunities. Industrial development thus has a multiplier effect on the economy. Banking industries been regarded as one of the component of economy. It transfers the scattered funds collected from saving of the public into various productive sectors. Economic activities remains halt in absence of banking industries as it plays the role of catalyst for economic development of the country in the developing country where there prevail unorganized transactions. It helps to enhance economic activities of the country by providing capital funds for the smooth operation of business activities, create employment opportunities, investing agriculture, industry.

As Similar with other countries, banking sector plays a pivotal role in the overall development of our economy. Nepal is one of the land locked countries in the world situated midst of two large countries India and China. Both the countries have matured economics conditions where as Nepal being under developing country in the world with increasing tendency of the economic stipulations, most of the population is still living below poverty level with lowest rate of per capita income of only $272.40. In

our country development of banking is relatively recent. At present there are altogether 25 commercial banks operating in the country among which NBL and RBB has occupied wide range of the business due to access to most of the corner of the country. Slowly private banks are also initiating to move toward every corner of the country but due to prevailing political crisis they are not being able to meet their objects to reach to every corner of the country. Due to increasing competition banks are forced to innovate new products to their customer and they are also shifting from traditional service procedure to various sophisticated services like ATM card, debit cards, credit card, housing loan, educational loans, vehicle financing.

The NRB has also declare to new commercial bank to have minimum paid up capital Rs. 250 million to operate all over Nepal except Kathmandu valley and Rs. 1,000 billion to operate all over Nepal this is effective form 15th May 2002. It also directed commercial banks to invest in the shares and securities of an organization not more than 10 percent paid-up capital of the organization. Likewise, the commercial banks could invest not more than 10 percent in the securities of any one of it's financially self-interest bearing organizations that of not more than 20 percent in case of those financially self-interest bearing organizations. For making investment in the securities like this, the total investment was required to be not more than 30 percent of banks paid-up capital; the investment should be made only in the shares and securities of those organizations which were already listed and were in the process being listed within one year in stock exchange; and the banks could not invest in the shares, securities and hybrid capital instruments in those issued by the banks and financial institutions that took permission from NRB to operate their transactions. If such investment made prior to the issuance of this directive, they required to withdraw within the limit prescribed by this directive as at end of FY 2003/04.

Every business needs capital to operate business smoothly and the capital is said to be blood of the business. Capital is a scare sources and much more essential to maintain smooth operation of any firm. As in order firm, capital structure is crucial part for banking industry too. Profitability is basically an arc around which the ventures every business revolves. Profit is the main financial indicator of business firm, which is indeed a need to survive and grow the business environment.

The main theories of capital structure are Net Income Approach, Net Operation Income Approach, Traditional Approach and Modigliani- Miller approach. Without study of these elements, the company cannot make appropriate capital structure and

analysis of leverage may be incomplete. Profit is essential to raise the market price of shares and to attract additional capital investment. Profit is the outcome of good management, cost control, credit risk management, efficiency of operation, etc. profit is described in two ways, one is traditional approach (Profit maximization) and another is Modern approach (Sales maximization).

The study of capital structure for banking business is very essential since the business is operated with outsider's funds. The capital structure decision is important for long run profitability and solvency of the business. The main objective of the study is to analysis the impact of capital structure on profitability of sample banks. The specific objectives are to analyze the capital structure of sample banks, to analyze the effects of capital structure on the profitability of sample banks, to examine the relationship between profitability and financial risk of sample banks and to point out the relationship among capital structure, profitability and earning per share of sample banks.

The study covers only three banks NBL, NIBL and HBL among 25 commercial banks. Operating date of these three banks are 16th July 1984, 27th February 1986 and 18th January 1993 respectively. Head office of all sample banks are in Kathmandu. The study completely based on secondary data accumulated from websites. The study is based on five fiscal years from 2002/03 to 2006/07. Therefore the conclusion is concern with only above period.

Research Methodology followed to achieve the objective of the study and which constitute Research Design, Source of Date, Population and sample, Data Collection process and Method of Analysis. As it has already mentioned that the procedure has been divided into two parts that is financial analysis and statistical analysis. Both parts have made comparative analysis and their interpretation. There are various tools and technique of financial analysis, each of which is used according to purpose for which the analysis is carried out. The widely technique used is as follows:

- Ratio Analysis
- Statement of changes in financial position
- Cash flow statement

Among them ratio analysis is used by most companies. Therefore in this study we have discussed only about ratio analysis. Under statistical analysis Coefficient of Correlation, Simple and multiple regression and Test of Hypothesis have been used.

5.2 Conclusions

The capital structure decision is crucial for any business organization. The decision is important because of the need to maximize returns to various organizational constituencies and also because of the impact such a decision has on an organization's ability to deal with its competitive environment. This study evaluates the relationship between capital structure and profitability of selected sample banks. Observing all the analysis made for the study of the capital structure and profitability of sample banks it could be concluded that the overall performance of sample banks found to be satisfactory. All sample banks are not strong in all performance. The main objective of a bank is to make profit providing different types of services to its customers. Deposits are the main tool for developing banking performance of the banks. And investment and loan and advances are keys to mobilize the deposit to earn more profit. Profit is necessary to survive in any business field for its successful operation and further expansion. Profitability shows the overall efficiency of the business concerns.

From profitability point of view, NBL found to be better among sample banks because they pay lower interest rate for debt fund and earn higher interest by mobilizing its deposit and assets to different productive and profitable sectors. NBL also get high return from mobilizing their total assets where as HBL is less successful in mobilizing their total assets. But share holders of HBL can get high return from their investment in shares because its ROE high among the sample banks. According to the EPS NBL has a high EPS. Earning per share of an organization gives the strength of the share in the market. It shows how much of the total earnings belong to the ordinary shareholders. Highest Earning per share of NBL indicates it has a good position in market where as NIBL and HBL has not satisfactory level of earning per share which means it has a weak market position.

Capital structure analysis also shows that all the sample banks use short term debt rather than the long term debt. Short term debt tends to be less expensive and therefore increasing short term debt with a relatively low interest rate will lead to an increase in profits.

Leverage ratio is calculated to measure the long-term financial position of a firm. The analysis of leverage ratio shows that all the sample banks use a high equity fund rather than debt fund. Debt fund need to pay an interest until debt is hold by bank.

Therefore debt fund is burden for the bank and it should decrease according to the necessity. In other words debt is risky in point of view from banks but equity is risky than debt in point of view from investors.

The results show that the HBL has poor debt serving capacity. As the HBL bore high debt to equity ratio and the use of debt is excessive. The net profit of the HBL is inadequate which might affect the operating efficiency of the corporation in the long run. The HBL must boost up its net profit to run the firm smoothly in future and to maintain the high credit rating in the market.

Correlation coefficient between variables shows clearly positive relationship between ROE and LDA, SDA, LOG S. It advises that ROE can be increase by increasing the portion of debt financing in the capital structure. LDA has negative relation with SDA which conclude that increase in LDA will cause decrease in SDA. Positive relation with LOG S and EPS concludes increase in LDA will cause increase in LOG S and EPS. Similarly negative correlation between SDA with LOG S and LOG EP concludes increase in SDA will cause decrease in LOG S and EPS.

Simple regression analysis shows positive relationship between Log 10 of earning per share and size. Co–efficient of determination (r^2) is 4.4%, which indicates that 4.4% of the variation in the EPS can be explained by variation in the Interest income.

The result of multiple regressions of ROE on selected explanatory variables reverted positive beta-coefficient for LDA and negative beta-coefficient for size. The coefficient of LDA is significant as P-value (0.027) is less than critical P- value 0.05. The coefficient of size is insignificant as P-value (0.283) is greater than critical P- value 0.05.

Finally to summarize the conclusion the capital structure decision is crucial for any business organization. Capital structure affects the profits of the firms. We should select the great combination of securities. If it does not happened firm will unable to stay in long run. The overall sample banks is satisfactory however inflation in the current situation came as a major factor in narrowing the scope of operation of these banks.

5.3 Recommendation

On the basis of above finding and analysis it is clear that all banks are not strong in all fields. Some of them are stronger in profit making but failed to maintain the consistency, some are weaker in mobilizing their collected funds; few of them have concentrated into very limited diversified investments etc. Therefore the following recommendations should be brought into highlight to overcome inefficiency, weakness and to develop present fund mobilization and investment policy of the banks:

- HBL is not successful as NIBL and NBL to earn a net profit by utilizing its assets and collected funds. So, HBL should invest its deposits and utilize its assets in different productive and profitable sectors on the basis of portfolio management. The portfolio management of assets basically means allocation of funds into different components of banking assets having different degrees of risk and varying rate of return in such a way that the conflicting goal of maximum yield and minimum risk. So, portfolio condition of each bank should carefully be examined from time to time and attention should be made to maintain equilibrium in the portfolio condition as far as possible keeping the statement in mind that all eggs should not be kept in the same basket. Even though NBL has higher net profit with respect to total assets and deposit, they are failed to maintain stability. Therefore they should decrease a variation level. NIBL also fail to maintain consistency. They should try to maintain consistency level.

- With compare to NBL, NIBL and HBL has failed to manage proper debt to equity ratio, so it is recommended to maintain appropriate debt and equity ratio in order to reduce the operating costs and maximize the earnings to the shareholders. The debt serving capacity of the NIBL and HBL is poor i.e only 1.9267 and 1.8813 times respectively. Therefore the both bank should retire debt to have a comfortable coverage ratio.

- NBL should maintain stability in earning an interest since they have greater variation in earning an interest. Since HBL have low interest earning among the sample banks they should increase an interest earning because it will directly effect to the net profit.

- Profit is a key of success of any business. The bank also cannot survive without the profit. So, they should keep in the mind for profit maximization. But in long term business bank also should be concern with the shareholder's wealth maximization as they are investor of the bank.

- The overall investment of the Bank should be concentrated on productive sector such as business and industrial loan rather than consumer product such as hire purchase and housing loan. Because industrial and business sector will create the employment opportunity which is necessary for capital formation and economic growth.

- NIBL paid a higher interest among sample bank which mean that they used more creditors funds or paid higher interest rate in investment. So, they need to use equity fund rather than debt or should pay a less interest rate. NBL should maintain stability in paying the interest because their variation in interest rate is high.

- It is found that, in compare with NBL, NIBL and HBL are unable to plan their capital structure properly because its debt equity ratio is not satisfactory. Due to this reason, its EPS may not be maximized. So, those banks are recommended to plan its capital structure by analyzing the possible alternative financial plans or analyzing future cash flow of the bank.

- Bank needs to review and monitor leverage ratio regularly so that risk to the bank may not increase which may effects in efficient operation of the bank.

- The discrimination in lending interest should not be done by the bank because it will bring the dissatisfaction to the general public. This may lead to discourage toward deposit in the bank in long term business. The rate of interest should be fixed accordance to the situation of the country. There should not be unhealthy competition regarding the interest rate to attract customer

- In the present situation, it is the utmost important to provide security and the reliability. So the bank should focus on the security concern in order to make

the customer feel that they more secured in investing in the bank whether it may be NBL, NIBL or HBL.

- The success rate of banking mainly depends upon the banking awareness by the general public. Unless they find a convincing reason about their savings as well as new approach of investment, it is almost impossible to make live for a bank. Therefore there should be the awareness program, regularly conducted in terms of seminars or workshops from well experienced personnel such as top executives from Banks and concerned regulating authorities. This will exchange the ideas and share the grass root problems. On the basis of this feed back information, regular changes or implementation of new rules and regulations can be easily carried out. Nepal Rastra Bank should also encourage frequent trainings to new entrants to provide orientations on the conceptual dimensions and practical aspects of operation of the Banks.

- Today is an age of competition. Bank should be survived within these competitions. Therefore for attraction of the deposit, they should brought different attractive programmed , facilities , technology etc. like ATM, credit cards, 365days banking service, prompt service etc. In other words Bank needs to employ better marketing strategy in order to reap handsome benefit and to sustain for long period.

- It is suggested to all the sample banks that they should use well-trained manpower. Well trained manpower will provide better services to the bank and customer. They will try to increase the operating efficiency of the bank, so the banks have to conduct "Training School" for their personal.

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APPENDIX - 1

Debt- Assets Ratio

(Rs. in million)

Banks									
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
Fiscal Year	Total Debt	Total Assets	Ratio (in times)	Total Debt	Total Assets	Ratio (in times)	Total Debt	Total Assets	Ratio (in times)
2002/03	15248.44	16562.62	0.9207	8375.71	9014.24	0.9292	22292.09	23355.23	0.9545
2003/04	15264.60	16745.48	0.9116	12526.45	13255.50	0.9450	23437.86	24762.02	0.9465
2004/05	15528.7	17186.33	0.9035	15093.89	16274.06	0.9275	26302.94	27844.69	0.9446
2005/06	20454.98	22329.97	0.9160	19914.71	21330.14	0.9336	27694.21	29460.39	0.9400
2006/07	25196.34	27253.39	0.9245	25712.73	27590.84	0.9319	31372.64	33519.14	0.9360
Mean			0.9153			0.9334			0.9443
S.D.			0.0082			0.0069			0.0070
C.V. (%)			0.8914			0.7378			0.7418

APPENDIX - 2

Debt - Equity Ratio

(Rs. in million)

Banks									
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
Fiscal Year	Total Debt	Total Equity	Ratio (in times)	Total Debt	Total Equity	Ratio (in times)	Total Debt	Total Equity	Ratio (in times)
2002/03	15248.44	1314.18	11.6030	8375.71	638.53	13.1172	22292.09	1063.14	20.9682
2003/04	15264.60	1480.88	10.3078	12526.45	729.05	17.1819	23437.86	1324.16	17.7002
2004/05	15528.7	1657.63	9.3680	15093.89	1180.17	12.7896	26302.94	1541.75	17.0604
2005/06	20454.98	1874.99	10.9094	19914.71	1415.43	14.0697	27694.21	1766.18	15.6803
2006/07	25196.34	2057.05	12.2488	25712.73	1878.11	13.6907	31372.64	2146.5	14.6157
Mean			10.8874			14.1698			17.2050
S.D.			1.1192			1.7554			2.4216
C.V. (%)			10.2797			12.3880			14.0750

APPENDIX - 3

Short Term Debt to Total Assets Ratio

(Rs. in million)

Banks									
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
Fiscal Year	Short Term Debt	Total Assets	Ratio (in times)	Short Term Debt	Total Assets	Ratio (in times)	Short Term Debt	Total Assets	Ratio (in times)
2002/03	12882.88	16562.62	0.7778	6686.65	9014.24	0.7418	19054.56	23355.23	0.8159
2003/04	12843.23	16745.48	0.7670	10212.27	13255.50	0.7704	18680.70	24762.02	0.7544
2004/05	13342.28	17186.33	0.7763	11866.57	16274.06	0.7292	20195.51	27844.69	0.7253
2005/06	16903.47	22329.97	0.7570	14487.88	21330.14	0.6792	21344.01	29460.39	0.7245
2006/07	19660.1	27253.39	0.7214	18182.44	27590.84	0.6590	23171.51	33519.14	0.6913
Mean			0.7599			0.7159			0.7423
S.D.			0.0231			0.0458			0.0468
C.V. (%)			3.0392			6.4014			6.3066

APPENDIX - 4

Long Term Debt to Total Assets Ratio

(Rs. in million)

Banks									
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
Fiscal Year	Long Term Debt	Total Assets	Ratio (in times)	Long Term Debt	Total Assets	Ratio (in times)	Long Term Debt	Total Assets	
2002/03	2365.56	16562.62	0.1428	1689.06	9014.24	0.1874	3237.53	23355.23	0.1386
2003/04	2421.37	16745.48	0.1446	2314.18	13255.50	0.1746	4757.16	24762.02	0.1921
2004/05	2186.42	17186.33	0.1272	3227.32	16274.06	0.1983	6107.43	27844.69	0.2193
2005/06	3551.51	22329.97	0.1590	5426.83	21330.14	0.2544	6350.20	29460.39	0.2156
2006/07	5536.24	27253.39	0.2031	7530.29	27590.84	0.2729	8201.13	33519.14	0.2447
Mean			0.1554			0.2175			0.2021
S.D.			0.0290			0.0435			0.0401
C.V. (%)			18.6583			19.9765			19.8264

APPENDIX - 5

Interest Coverage Ratio

(Rs. in million)

Banks									
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
Fiscal Year	EBIT	Interest	Ratio (in times)	EBIT	Interest	Ratio (in times)	EBIT	Interest	Ratio (in times)
2002/03	932.74	317.35	2.9392	359.36	189.21	1.8993	914.15	554.13	1.6497
2003/04	940.02	282.95	3.3222	557.68	326.20	1.7096	912.11	491.54	1.8556
2004/05	1001.32	243.54	4.1115	688.23	354.55	1.9411	1084.51	561.96	1.9299
2005/06	1255.16	357.16	3.5143	995.87	490.95	2.0285	1321.24	648.84	2.0363
2006/07	1550.76	555.71	2.7906	1408.9	685.53	2.0552	1484.81	767.41	1.9348
Mean			3.3356			1.9267			1.8813
S.D.			0.5216			0.1369			0.1445
C.V. (%)			15.6383			7.1044			7.6823

APPENDIX - 6

Net Profit to Total Assets Ratio

(Rs. in million)

Banks									
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
Fiscal Year	Net Profit	Total Assets	Ratio (in times)	Net Profit	Total Assets	Ratio (in times)	Net Profit	Total Assets	Ratio (in times)
2002/03	416.24	16562.62	0.0251	116.82	9014.24	0.0130	212.12	23355.23	0.0091
2003/04	455.31	16745.48	0.0272	152.67	13255.50	0.0115	263.05	24762.02	0.0106
2004/05	518.63	17186.33	0.0302	232.15	16274.06	0.0143	308.28	27844.69	0.0111
2005/06	635.26	22329.97	0.0284	350.54	21330.14	0.0164	457.46	29460.39	0.0155
2006/07	673.96	27253.39	0.0247	501.39	27590.84	0.0182	491.82	33519.14	0.0147
Mean			0.0271			0.0147			0.0122
S.D.			0.0023			0.0027			0.0028
C.V. (%)			8.4004			18.1659			22.7053

APPENDIX - 7

Return on Shareholder's Equity or ROE

(Rs. in million)

Banks									
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
Fiscal Year	EBIT	Equity	Ratio (in times)	EBIT	Equity	Ratio (in times)	EBIT	Equity	Ratio (in times)
2002/03	932.74	1314.18	0.7098	359.36	638.53	0.5628	914.15	1063.14	0.8599
2003/04	940.02	1480.88	0.6348	557.68	729.05	0.7649	912.11	1324.16	0.6888
2004/05	1001.32	1657.63	0.6041	688.23	1180.17	0.5832	1084.51	1541.75	0.7034
2005/06	1255.16	1874.99	0.6694	995.87	1415.43	0.7036	1321.24	1766.18	0.7481
2006/07	1550.76	2057.05	0.7539	1408.9	1878.11	0.7502	1484.81	2146.5	0.6917
Mean			0.6744			0.6729			0.7384
S.D.			0.0594			0.0943			0.0719
C.V. (%)			8.8064			14.0114			9.7436

APPENDIX - 8

Total Interest Earned to Total Working Fund Ratio

(Rs. in million)

Banks									
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
Fiscal Year	Interest Earned	Working Fund	Ratio (in times)	Interest Earned	Working Fund	Ratio (in times)	Interest Earned	Working Fund	Ratio (in times)
2002/03	1017.87	16562.62	0.0615	459.51	9014.24	0.0510	1201.23	23355.23	0.0514
2003/04	1001.62	16745.48	0.0598	731.40	13255.50	0.0552	1245.90	24762.02	0.0503
2004/05	1068.75	17186.33	0.0622	886.80	16274.06	0.0545	1446.47	27844.69	0.0519
2005/06	1310.00	22329.97	0.0587	1172.75	21330.14	0.0550	1626.47	29460.39	0.0552
2006/07	1587.76	27253.39	0.0583	1584.99	27590.84	0.0574	1775.58	33519.14	0.0530
Mean			0.0601			0.0546			0.0524
S.D.			0.0017			0.0023			0.0019

C.V. (%)			2.8486			4.2670			3.5335

APPENDIX - 9

Total Interest Paid to Total Working Fund Ratio

(Rs. in million)

Banks									
	Nabil Bank Limited			**Nepal Investment Bank Limited**			**Himalayan Bank Limited**		
Fiscal Year	**Interest Paid**	**Working Fund**	**Ratio (in times)**	**Interest Paid**	**Working Fund**	**Ratio (in times)**	**Interest Paid**	**Working Fund**	**Ratio (in times)**
2002/03	317.35	16562.62	0.0192	189.21	9014.24	0.0210	554.13	23355.23	0.0237
2003/04	282.95	16745.48	0.0169	326.20	13255.50	0.0246	491.54	24762.02	0.0199
2004/05	243.54	17186.33	0.0142	354.55	16274.06	0.0218	561.96	27844.69	0.0202
2005/06	357.16	22329.97	0.0160	490.95	21330.14	0.0230	648.84	29460.39	0.0220
2006/07	555.71	27253.39	0.0204	685.53	27590.84	0.0248	767.41	33519.14	0.0229
Mean			0.0173			0.0230			0.0217
S.D.			0.0025			0.0017			0.0017
C.V. (%)			14.3364			7.3554			7.7521

APPENDIX - 10

Earning Per Share

(In Rs.)

Banks									
	Nabil Bank Limited			**Nepal Investment Bank Limited**			**Himalayan Bank Limited**		
Fiscal Year	**Net Income**	**No. of Shares**	**Ratio (in times)**	**Net Income**	**No. of Shares**	**Ratio (in times)**	**Net Income**	**No. of Shares**	**Ratio (in times)**
2002/03	416240000	4916544	84.66	116820000	2952930	39.56	212120000	4290000	49.45
2003/04	455310000	4916544	92.61	152670000	2952930	51.70	263050000	5362500	49.05
2004/05	518630000	4916544	105.49	232150000	5877385	39.50	308280000	6435000	47.91
2005/06	635260000	4916544	129.21	350540000	5905860	59.35	457460000	7722000	59.24
2006/07	673960000	4916544	137.08	501390000	8013526	62.57	491820000	8108100	60.66
Mean			109.8088			50.5367			53.2609
S.D.			22.7323			10.7955			6.1524

C.V. (%)			20.7017			21.3617			11.5513

APPENDIX - 11

Correlations

		Return on equity	Longterm leverage	Short term leverage	Total leverage	Log 10 of interest	growth rate in interest income	Log 10 of earning per share
Return on equity	Pearson Correlation	1	.372	.155	.[a]	.472	.[a]	.133
	Sig. (2-tailed)		.173	.582	.	.076	.	.636
	N	15	15	15	15	15	12	15
Longterm leverage	Pearson Correlation	.372	1	-.600*	.[a]	.673**	.[a]	.030
	Sig. (2-tailed)	.173		.018	.	.006	.	.916
	N	15	15	15	15	15	12	15
Short term leverage	Pearson Correlation	.155	-.600*	1	.[a]	-.288	.[a]	-.018
	Sig. (2-tailed)	.582	.018		.	.298	.	.948
	N	15	15	15	15	15	12	15
Total leverage	Pearson Correlation	.[a]	.[a]	.[a]	.[a]	.[a]	.[a]	.[a]
	Sig. (2-tailed)	.	.	.		.	.	.
	N	15	15	15	15	15	12	15
Log 10 of interest	Pearson Correlation	.472	.673**	-.288	.[a]	1	.[a]	.362
	Sig. (2-tailed)	.076	.006	.298	.		.	.185
	N	15	15	15	15	15	12	15
growth rate in interest income	Pearson Correlation	.[a]	.[a]	.[a]	.[a]	.[a]	.[a]	.[a]
	Sig. (2-tailed)	.	.	.	.	.		.
	N	12	12	12	12	12	12	12
Log 10 of earning per share	Pearson Correlation	.133	.030	-.018	.[a]	.362	.[a]	1
	Sig. (2-tailed)	.636	.916	.948	.	.185	.	
	N	15	15	15	15	15	12	15

a. Cannot be computed because at least one of the variables is constant.

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

APPENDIX - 12

Calculation of Probable Error among Variables

Variables	r	$(1-r^2)$	$\sqrt{n}$	$\frac{1 Z r^2}{\sqrt{n}}$	$0.6745 \times \frac{1 Z r^2}{\sqrt{n}}$
ROE and LDA	0.372	0.86162	3.8730	0.2225	0.150
ROE and SDA	0.155	0.97598	3.8730	0.2520	0.170
ROE and LOG S	0.472	0.77722	3.8730	0.2007	0.135
ROE and LOG EPS	0.133	0.98231	3.8730	0.2536	0.171
LDA and SDA	-0.600	0.64000	3.8730	0.1652	0.111
LDA and LOG S	0.673	0.54707	3.8730	0.1413	0.095
LDA and LOG EPS	0.030	0.99910	3.8730	0.2580	0.174
SDA and LOG S	-0.288	0.91706	3.8730	0.2368	0.160
SDA and LOG EPS	-0.018	0.99968	3.8730	0.2581	0.174
LOG S and LOG EPS	0.362	0.86896	3.8730	0.2244	0.151

Where,

$$P.E. = 0.6745 \times \frac{1\ Z\ r\ 2}{\sqrt{n}}$$

APPENDIX - 13

Regression Analysis between LOG EPS and LOG of Interest

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.210[a]	.044	-.052	.182522433

a. Predictors: (Constant), Log 10 of interest

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.015	1	.015	.460	.513[a]
	Residual	.333	10	.033		
	Total	.348	11			

a. Predictors: (Constant), Log 10 of interest

b. Dependent Variable: Log 10 of earning per share

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.858	1.444		.594	.566
	Log 10 of interest	.316	.466	.210	.678	.513

a. Dependent Variable: Log 10 of earning per share

APPENDIX - 14

Regression Analysis among Variables

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Longtrem leverage, Log 10 of interest[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Return on equity

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.705[a]	.497	.385	.052431868

a. Predictors: (Constant), Longtrem leverage, Log 10 of interest

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.024	2	.012	4.442	.045[a]
	Residual	.025	9	.003		
	Total	.049	11			

a. Predictors: (Constant), Longtrem leverage, Log 10 of interest

b. Dependent Variable: Return on equity

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.190	.591		2.013	.075
	Log 10 of interest	-.238	.208	-.419	-1.143	.283
	Longtrem leverage	1.244	.470	.972	2.648	.027

a. Dependent Variable: Return on equity

APPENDIX - 15

Regression Analysis among Variables

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Short term leverage, Log 10 of interest[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Return on equity

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.340[a]	.116	-.081	.069496639

a. Predictors: (Constant), Short term leverage, Log 10 of interest

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.006	2	.003	.590	.574[a]
	Residual	.043	9	.005		
	Total	.049	11			

a. Predictors: (Constant), Short term leverage, Log 10 of interest

b. Dependent Variable: Return on equity

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.270	.797		.339	.743
	Log 10 of interest	.157	.193	.278	.814	.437
	Short term leverage	-.171	.504	-.116	-.339	.743

a. Dependent Variable: Return on equity

APPENDIX - 16

Regression Analysis among Variables

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Longtrem leverage, Log 10 of interest[a]		Enter

a. All requested variables entered.

b. Dependent Variable: Log 10 of earning per share

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.425[a]	.180	-.002	.178134553

a. Predictors: (Constant), Longtrem leverage, Log 10 of interest

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.063	2	.031	.991	.408[a]
	Residual	.286	9	.032		
	Total	.348	11			

a. Predictors: (Constant), Longtrem leverage, Log 10 of interest

b. Dependent Variable: Log 10 of earning per share

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-.894	2.009		-.445	.667
	Log 10 of interest	.977	.706	.648	1.384	.200
	Longtrem leverage	-1.953	1.596	-.573	-1.224	.252

a. Dependent Variable: Log 10 of earning per share

CURRICULUM VITAE

Personal Details

Name : Pushpa Ratna Bajracharya
Address : '15' Satdobato, Lalitpur
Date of Birth : 2033-01-22 (B.S.)
Father's Name : Dharma Ratna Bajracharya
Nationality : Nepali
Mother Tongue : Nepal Bhasha
Language : Nepal Bhasha, Nepali, English
Religion : Buddhist
Sex : Male

Academic Qualifications

Level	Passed Year	Division	Board / University
MBS	Thesis on going		Patan Multiple Campus (T.U.)
BBS	2059 B.S	Pass	Namuna Machhidra Campus (T.U.)
I. COM	2054 B.S	Pass	Namuna Machhidra Campus (T.U.)
S.L.C.	2049 B.S	II	Namuna Machhindra Madhyamik Vidyalaya

Additional Qualifications

- Tour Officer Training from Himalayan Institute of Tourism management.
- Diploma in Computer Application Programming from Benchmark IT College.

Working Experience

Working as Marketing and Financial Officer of Special Food Industry (Produce Corn Flakes and Wheat Flakes) since 2060 B.S.

Contacts

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