A STUDY OF CAPITAL STRUCTURE MANAGEMENT OF COMMERCIAL BANKS WITH REFERENCE TO NABIL BANK LTD. AND HIMALAYAN BANK LTD.

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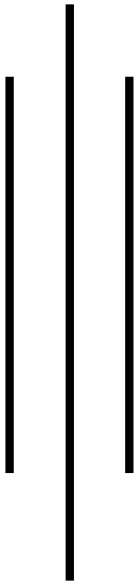

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RECOMMENDATION

This is to certify that the Thesis submitted

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"A STUDY OF CAPITAL STRUCTURE MANAGEMENT OF COMMERCIAL BANKS WITH SPECIAL REFERENCE TO NABIL BANK LTD. AND HIMALAYAN BANK LTD."

has been prepared as approved by this Department in the prescribed format of the Faculty of Management. This report is forwarded for examination.

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(Researcher)

DECLARATION

I, the undersigned, hereby declare that this thesis entitled "A study on the Capital Structure Management of Commercials Banks with special reference to Nabil Bank Ltd. and Himalayan Bank Ltd.", submitted to office of the Dean, Faculty of Management, Tribhuvan University is my original work done in the form of partial fulfillment for the requirements of Master's Degree in Business studies (MBS) under the supervision of Mrs. Snehalata Kafle and Mrs. Sita Dhital of Shanker Dev Campus, and that all the sources I have used or quoted have been indicated or acknowledged by means of completed references.

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Priti Thapa

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ABBREBRIATION

% = Percent

Σ = Summation

B = Value of Debt

CB = Commercial Bank

CE = Capital Employed

D/E = Debt Equity Ratio

DFL= Degree of Financial Leverage

DPS = Dividend per share

EAT = Earning after Tax

EBIT = Earning Before interest and Tax

EBT = Earning Before Tax

EPS = Earning per Share

F/Y = Fiscal years

HBL = Himalayan Bank Ltd

I= Interest

ICR = Interest Coverage Ratio

JVB = Joint Venture Bank

k = cost of capital

Ko = Overall Capitalization Rate

kd = cost of debt

Ke = cost of equity

LTD = Long Term Debt

NBL = Nabil Bank Ltd

NRB = Nepal Rastra Bank

NI = Net Income

NOI= Net Operating Income

P.E = Probable Error

PC = Permanent Capital

r = Correlation Coefficient

RBB = Rastriya Banijya Bank

ROA = Return on Assets

ROE = Return on Share holders Equity

S = Market Value of Stock

TA = Total Assets

TD = Total Debt

V = Value of Firm

WACC = Weighted Average cost of capital

CHAPTER – I

INTRODUCTION

1.1 Background of the study

The commercial bank has been a vital ingredient for economic development. They are intermediaries, which mobilize funds through the prudential combination of investment portfolios in advanced countries. Whereas in Nepal the role of joint venture banks are still to be realize as an essential machine of mobilizing internal saving through various banking schemes in the economy. Hence, to uplift the backward economic condition of the country, the process of capital accumulation among other pre requisition, should be expedited. Capital accumulation plays an essential role in acceleration of the economic growth of nations. But the capacity of saving in the developing country is quite low with a relatively higher marginal propensity of consumption. As a result developing countries are badly trapped into the vicious circle of poverty. The basic problem of these countries is raising the level of saving and investments. In order to collect the enough saving and put them into productive channels, financial institutions like banks are necessary. It will be utilize within the economy and will either be diverted abroad or used for productive consumption or speculative activities.

Commercial banks are the largest sources of finance. They are the suppliers of finance for trade and industry and play a vital role in the economic and financial life of the country. By investing the saving in the productive areas, they help in the formation of capital. The qualitative credit policy ensures certain portion of the credit of bank invested in the productive and priority areas so that there may not be shortage of resources in such areas. In additional flexible monetary and credit policy improve the prevailing slow down in the economic activities to alleviate sluggish credit expansion to the private sector from the banking sectors. Rural people of underdeveloped countries like Nepal need various banking facilities; in most of the countries the rural sector is neglected due to risk and low return. But the main source of national income of developing countries comes from the very rural sector. In fact the rural development is the key to the economic development without which other sector of

the economy cannot be flourished.

Commercial Banks are those institutions that perform all kind of banking functions such as accepting deposits, advance loans, creating and advancing loan agency function etc, They provided short-team, medium term and long term loans to trade and industry. (*Fward,Cotlet and Smith 1976:2*)

Commercial banks are the suppliers of finance for trade and industry, which plays vital role in the economic and financial life of the country. They help in the formation of capital by investing the savings in productive areas. Rural people of under developed countries like Nepal need various banking facilities to enhance its economy. In most of the countries, the banks are generally concentrated in urban and semi-urban sectors. They neglect rural sector due to heavy risk and low return, which is in fact, without it, other sectors of economy cannot be flourished.

The concept of banking is developed from the history with the effort of ancient gold smith who developed the practices of storing people's gold and valuables. They received valuables and used to issue a receipt to the depositors. As such receipts are good for payment equipment to the amount mentioned, it become like the modern cheque, as a medium of exchange and means of payment.

The history of modern financial system of Nepal was begun in 1937, Nepal's first commercial bank, the Nepal Bank Limited, was established. The government owned 51 percent of the shares in the bank and controlled its operations to a large extent. Nepal Bank Limited was headquartered in Katmandu and had braches in other parts of the country. Rastriya Banijya Bank (National Commercial Bank), a state–owned commercial bank, was established in 1966.

The Land reform Saving Corporation was established in 1966 to deal with financed related to land reforms. There were two other specialized financial institutions. Nepal Industrial Development Corporation, a state-owned development finance organization headquartered in Katmandu, was established in 1959 with United States assistance to offer financial and technical assistance to private industry. Although the government invested in the corporation, representatives from the private business sector also sat

on the board of director. The Co-operative Bank, which became the Agricultural Development Bank in 1967, was the main source of financing for small agribusinesses and cooperatives. Almost 75% of the bank was state owned; 21% was owned by the Nepal Rastra Bank and 5% by cooperatives and private individuals. The Agricultural Development Bank also served as the government's implementing agency for small farmers' group development projects assisted by the Asian Development Bank and financed by the United Nations Development Programmer. The Ministry if finance reported in 1990 that the Agricultural Development Bank, which is vested with the leading role in agricultural loan investment, had granted loans only 9 percent of the total number of farming families since 1965.

In the mid-1980s, three foreign commercial banks opened branches in Nepal. The Nepal Arab Bank was co-owned by the emirates Bank International Limited (Dubai), the Nepalese government, and the Nepalese public. The Nepal Indosuez Bank was jointly owned by the French Banque Indosuez, Rastriya Banijya Bank, Rastriya Beema Sansthan (National Insurance corporation), and the Nepalese public, Nepal Grindlays Bank was co-owned by a British firm called Grindlays Bank, local financial interests, and the Nepalese public.

Nepal Rastra Bank was created in 1956 as the central bank. Its function was to supervise commercial banks and to guide the basic monetary policy of the nation. Its major aims were to regulate the issue of paper money; secure countrywide circulation of Nepalese currency and achieve stability in its exchange rates; develop the banking system in the country, thereby ensuring the existence of banking facilities; and maintain the economic interests of the general public. Nepal Rastra Bank also was to oversee foreign exchange rates and foreign exchange reserves. Prior to the establishment of Nepal Rastra Bank, Katmandu had little control over its foreign currency holdings. Indian rupees were the prevalent medium of exchange in most parts of the country. Nepalese currency was used mostly in the Katmandu Valley and the surrounding hill areas. The existence of a dual currency system made it hard for the government to know the status of Indian currency holdings in Nepal. The exchange rates between Indian and Nepalese rupees were determined in the marketplace. Between 1932 and 1955, the value of 100 Indian rupees varied between Rs.71 and Rs177. The government entered the currency marked with a form of fixed

exchange rate between the two currencies in 1958. An act passed in 1960s, the government made special efforts to use Nepalese currency inside the country as a medium of exchange. It was only after the singing of the 1960 Trade and Transit Treaty with India that Nepal had full access to foreign currencies other than the Indian rupee. Prior to the treaty, all foreign exchange earnings went to the Central Bank of India, and the Indian government provided all foreign currency needs. After 1960 Nepal had full access to all foreign currency transactions and directly controlled its exports and imports with countries other than India. As a result of the treaty, the government had to separate Indian currency (convertible currency because of free convertibility) from other currencies (nonconvertible currency because it was directly controlled by Nepal Rastra Bank). In 1991 government statistics still separated trade with India from trade with other countries. Tables showing international reserves listed convertible and nonconvertible foreign exchange reserves separately. (*Sources: Library of Congress and CIA*).

Financial sector is an art of the industry and is regarded as the backbone or engine of the growth of the economy whether it is developed or developing or in transition or emerging. It plays a very important role in the development of all sector of economy and actually works as a lubricator by providing financial resources. It operates as an intermediary between financial surplus units (lender/savers) and financial deficit units (borrowers/spenders). It provides different needs and makes fund available to the borrowers/spenders in most competitive price. Financial markets provide playing field to financial institutions and their customer (depositors, borrower, investor etc.) with all types of financial instruments and as deposit, loan, advance, securities, insurance policies, corporate bonds and shares etc. a modern financial sector provides electronic services (e-banking), ATM service, credit card, debit cards, innovative insurance product and service, attractive pension schemes and derivatives, hedging and financial future. It can provide wider range of financial services at lower costs, while minimizing financial risks to a large number of customers. *(Source: NRB, 2004)*

The number of commercial banks has been increasing so is the investment volume and opportunity in various sectors that extends to agriculture, industry, commercial and social sectors. At present altogether 28 commercials banks are operating in Nepal.

Table No. 1.1

List of Commercial Banks in Nepal with Year established

S.N	Licensed Commercial Banks	Year Established (A.D)
1	Nepal Bank Limited	1937
2	Rastriya Banijya Bank	1966
3	Agriculture Development Bank Ltd.	1968
4	NABIL Bank Ltd.	1984
5	Nepal Investment Bank Ltd.	1986
6	Standard Chartered Bank Nepal Ltd.	1987
7	Himalayan Bank Ltd.	1993
8	Nepal SBI Bank Ltd.	1993
9	Nepal Bangladesh Bank Ltd.	1994
10	Everest Bank Ltd.	1994
11	Bank of Kathmandu Ltd.	1995
12	Nepal Credit and Commerce Bank Ltd.	1996
13	Lumbini Bank Ltd.	1998
14	Nepal Industrial & Commercial Bank Ltd.	1998
15	Machhapuchhre Bank Ltd.	1998
16	Development Credit Bank Ltd.	2001
17	Kumari Bank Ltd.	2001
18	Laxmi Bank Ltd.	2002
19	Siddhartha Bank Ltd.	2002
20	KIST Bank Ltd.	2002
21	Citizens Bank International Ltd.	2007
22	Global Bank Ltd.	2007
23	Prime Commercial Bank Ltd.	2007
24	Bank of Asia Nepal Ltd.	2007
25	Sunrise Bank Ltd.	2007
26	NMB Bank Ltd.	2008
27	Janta Bank Nepal Ltd.	2010
28	Mega bank Nepal Ltd.	2010

Source: Nepal Rastra Bank (www.nrb.org.np)

1.1.1 Concept of commercial Bank

Commercial banks are those banks, which perform all kinds of banking functions as accepting deposits, advancing credits, credits creation and agency functions etc. They provide short-term credit, medium term credit and long-term credit for trade and industry. They also operate off – balance sheet functions such as issuing guarantee, bonds, letter of credit etc.

In every country, outset of economic development is quite different but there is no debate about the significant role of banking sector for the economic development of the countries, as they are considered as the main source of finance. Without the development of sound commercial banking, underdeveloped countries cannot hope to join the ranks of advanced countries. If industrial development requires the use of capital, the use of capital equipment will not possible without the existence of banks to provide the necessary capital. Industrial development will be impossible without the existence of markets of the goods produced. On the other hand, the services of the commercial banks will help to extend the market.

Before defining the term commercial bank, let us define the meaning of bank:
A bank is an institution, which deals with money and credit. It accepts deposits from the public and mobilizes the fund to productive sectors. Bank is therefore, known as a dealer of money. At present context, bank is not only confined to accepting deposit and disbursing loan. In addition to this, a bank is engaged in different functions such as remittance, exchange currency, joint venture, underwriting, bank guarantee, discounting bill, insurance etc. Bank is a financial institution, which provides wide range of banking services.

"A banker or bank is a person or company carrying on the business of receiving money and collecting drafts, for customers subject to the obligation of honoring cheques drawn upon them from time to time by the customers to the extent of the amount available on their customer." *(Shekhar; 1994:4)*

Commerce is the financial transactions related to selling and buying activities of goods and services. Therefore commercial banks are those banks, which work from commercial viewpoint. They perform all kinds of banking functions as accepting

deposits, advancing credits, credit creations and agency functions. They provide short-term credit, medium term credits and long-term credit to trade and industry. They also operate off balance sheet functions such as issuing guarantee, bonds, letter of credit etc. Commercial banks act as an intermediary; accepting deposits and providing credits to the needy area. The main source of the commercial bank is current deposit, so they give more importance to the liquidity of investment and as such they specialize in satisfying the short-term credit need of business other than the long term.

Commercial banks are restricted to invest their funds in corporate securities. Their business is confined of financing the short-term needs of trade and industry such as working capital financing. They cannot finance in fixed assets. They grant credits in the form of cash credits and overdrafts. Apart from financing, they also render services like collection of bills and cheques, safe keeping of valuables, financial advising etc to their customers.

Commercial banks are organized as a joint stock company system, primarily for the purpose of earning profit. They can be either of the branch banking types as seen in most of the countries, with a large network branches in Nepal or of the unit banking type as in the united states where a banks operations are confined to a single office or to a few branches within a strictly limited area.

Commercial banks engage in the following activities:

- Processing of payments by way of telegraphic transfer, EFTPOS, internet banking, or other means.
- Issuing bank drafts and bank cheques.
- Accepting money on term deposit.
- Lending money by overdraft, installment loan, or other means.
- Providing documentary and standby letter of credit, guarantees, performance bonds, securities underwriting commitments and other forms of off balance sheet exposures.
- Safekeeping of documents and other items in safe deposit boxes.
- Sale, distribution or brokerage, with or without advice, of insurance, unit trusts and similar financial products as a “financial supermarket”.

- Cash management and treasury services.
- Merchant banking and private equity financing.
- Traditionally, large commercial banks also underwrite bonds, and make markets in currency, interest rates, and credit-related securities, but today large commercial banks usually have an investment bank arm that is involved in the mentioned activities.

1.1.2 Himalayan Bank Ltd and Nabil Bank Ltd

Himalayan Bank Ltd:

Himalayan Bank was established in 1993 in joint venture with Habib Bank Limited of Pakistan. Despite the cutthroat competition in the Nepalese Banking sector, Himalayan Bank has been able to maintain a lead in the primary banking activities- Loans and Deposits. Legacy of Himalayan lives on in an institution that's known throughout Nepal for its innovative approaches to merchandising and customer service.

Himalayan bank has got an authorized capital of Rs. 2000,000,000 of ordinary shares 20,000,000 of Rs 100 each in 2008/09. 85% of the share ownership is with the promoter (20% of foreign entity and 65% of other licensed institutes). General public owns 15% of the share.

Nabil Bank Ltd:

Nabil Bank Limited, the first foreign joint venture bank of Nepal, started operations in July 1984. Nabil was incorporated with the objective of extending international standard modern banking services to various sectors of the society. Pursuing its objective, Nabil provides a full range of commercial banking services through its 19 points of representation across the kingdom and over 170 reputed correspondent banks across the globe.

Nabil, as a pioneer in introducing many innovative products and marketing concepts in the domestic banking sector, represents a milestone in the banking history of Nepal as it started an era of modern banking with customer satisfaction measured as a focal objective while doing business.

Nabil bank has got an authorized capital of Rs.1, 600,000,000 of ordinary shares 16,000,000 of Rs 100 each in 2008/09. Promoters owns 70% of the share; 50% by foreign entity, 6.15% by other licensed institutions and 11.08% by other entities and 2.77% by individuals. Whereas general public owns 30% of the share.

1.2 Focus of the study

The commercial banks can affect the economic condition of the whole country; the effort is made to highlight the capital structure policy of commercial banks expecting that the study can balance the proportion of the equity and debt capital used by the commercial banks. Banking in this era has a new meaning and dimension, which is now offering many extra services rather than just accepting deposits and granting loans. So this thesis has been initiated to have a bird eye view on the capital structure of the commercial banks, with special reference to Nabil Bank Ltd and Himalayan Bank Ltd. This Thesis tries to evaluate various aspects of capital structure as earning per share of bank, cost of capital, share holder's equity etc. The thesis focuses on the capital structure of Nabil bank - Himalayan Bank Ltd and examines its financial position in various years by range of capital structure tools and various approaches. It primarily put spotlight on the capital structure of Nabil Bank / Himalayan Bank and merely focuses on other aspects such as management, profit functions, banks performance etc.

1.3 Statement of the problems

Banking plays a significant role in the economic development of the country by extending credit to the people. Although banking industry in Nepal is making remarkable progress and growth, it's not without the problems. At the present context, the main problem faced by the business sector as well as bank is the unstable political and economic condition of the country. To keep the capital structure of the bank in the sound and proper stipulation according to the guidance of the central Bank is another challenge faced by the commercial banks in today's scenario. Capital structure refers to the proportion of different types of securities issued by the firm like common shares, long term debt, preference share capital, debentures and retained earnings. Major portion of the capital comprises of owners fund and creditors fund. The owners expect dividend and appreciation in the share price whereas creditors expect interest and return of the fund at the mentioned time. So the capital structure of the firm is

important factor in determining the success of the firms. The firm is successful if it can optimize its capital structure and the capital is optimal when the overall cost of capital of the firm is minimized and profitability is maximized. So, analysis of the capital structure of the selected commercial banks will help optimal capital structure, which minimizes cost of capital and maximizes profitability.

The number of commercial banks is increasing in Nepal due to the attractive market opportunity available in the country, especially after the advent of democracy. Nowadays, the performance of these commercial banks has come under question in terms of customer satisfaction. Most of the banks in Nepal lack qualified professionals who are responsible for taking the vital decision as capital structure decision due to which banks fails to operate properly. Ultimately this results to the impoverishment or closure of the bank. The capital structure decision is considered as one of the most difficult decisions because the capital structure decision affects weighted average cost of capital (WACC), value of organization and its risk position. Therefore, the capital structure decision maker or financial manager of the bank should trace the structure that is successful in minimizing the WACC and risk of the bank along with maximizing the value of the bank. That structure is also called as optimal capital structure.

Among the various internal and external problems facing by Banks in Nepal, the capital structure decision-making is one of the main internal problems countered by the commercials banks. Most of the commercial banks also lack the skilled personnel who are capable of taking such decisions. In contrast, some personnel who bear such responsibility are found to be corrupt and they vandalize the decision, which increases their own wealth rather than that of the bank.

Thus, this thesis has been commenced, analyzing different aspect of commercial bank's capital structure, which is done by taking Nabil Bank Ltd and Himalayan Bank Ltd as reference and has tried to map out the following questions:

- Are the banks able to maximize return on equity capital?
- Are the banks able to minimize the cost of capital?
- To what extent the capital structure policy is followed by the banks?
- What are the main problems faced by commercial banks in developing and

implementing capital structure policy?

1.4 Objectives of the study

For effective management of capital, optimal capital structure has to be maintained and the optimal capital structure would be obtained at that combination of debt and equity that maximized the total value if the firm or minimizes the weighted average cost of capital. The bank has its own strategy for the management of the capital structure but the capital structure may or may not be effective or optimal. So, the main objective of this study is to study, analyze and interpret different aspects of capital structure management of the selected joint venture banks and to see whether these commercial bank had optimal capital structure or not. The studies will mainly focus on the Nabil bank and Himalayan Bank.

Besides there may be other objectives which has been stated in following points:

- To find out comparative position in capital structure between NBL and HBL.
- To examine the correlation and the significance of their relationship between different ratios related to capital structure.
- To analyze the relationship of debt and total capital.
- To analyze the profitability position of NBL and HBL
- To identify problems in capital structure of the sampled banks and recommend suggestion for their improvement.

1.5 Significance of the study

The study has been done in reference to the periodical performance of Nabil Bank Ltd and Himalayan Bank Ltd. The study has tried to focus on capital structure of the bank so the study could be significant in revising the banks capital structure for past five years at a glance. The study could be beneficial to various sectors such as general public, bank personals, management committee, investors, promoters, shareholders, stockbrokers and other stake holders. Nowadays, people are attracted to deposit in bank for the purpose of getting greater interest the right of capital structure play vital role calculated the liquidity profitable turnover of the companies. By this calculation shareholders policy maker debt management can choose right decision about related financial institutions and it will be also helpful as reference for thesis writer of management group.

1.6 Limitations of the study

The study has been prepared by the help of the financial reports and publications of the bank. The thesis has been initiated with view of tracing out different aspect of capital structure of the bank and the calculation has been done by the figures given by the bank. Further, the study has been initiated by the student rather than by some economic or financial analyst so the study has some of its own limitations as stated below:

- This thesis is based on secondary data (published annual reports of commercial banks), journals, newspapers, magazines etc and unpublished thesis.
- The study covers only 5 years data, beginning from 2005/06 to 2008/09.
- The study only the capital structure of the bank and ignores other aspects of banks.
- Among 28 commercial banks, two of them are studied due to time and resources constraints. Thus, it cannot draw a true picture of the overall conditions of commercial banks in Nepalese banking sector and the average performances of this bank is not the average of all the commercial banks in Nepal. Thus, the findings of the study cannot be generalized.
- To some extent, the data published on the websites may vary sometimes, with that of the annual reports of commercial banks. So, the data from the websites are considered as authentic one.

1.7 Chapter plan and organization of the study

The entire study is divided into 5 chapters. Brief information of what each chapter contains is given below.

Chapter I. It is an introductory chapter, which includes general background of bank. It also discusses about focus and significance of study, statement of problem, objective and limitation of the study.

Chapter II. This chapter deals with the review of literature. It includes reexamination or appraisal of the existing works in relevant areas and includes the concept of commercial banks, its roles, and a review of previous thesis too.

Chapter III. It is concerned with research methodology. It includes research design, sources of data, population and sample and method of analysis.

Chapter IV. This is the heart of the chapter as it is concerned with presentation and analysis of relevant data and information. In order to find out the true picture of the capital structure of NABIL Bank and Himalayan Bank Ltd, various financial and statistical tools and techniques are used. Thus, this chapter is concerned with the findings of the bank.

Chapter V. This chapter is concerned with the interpretation of the results and findings of chapter IV. It summarizes the overall picture of the study, draws conclusions, and offers suggestions and recommendations for improvement in the future.

CHAPTER – II

REVIEW OF LITERATURE

2.1 Introduction

This chapter is focused on brief discussion about the abstract regarding the theories of capital structure. In order to accomplish the objectives of the study, the chapter includes review of relevant concepts, assumptions, books and journals as well as major findings of previous studies of the relevant field in precise manner.

The purpose of reviewing the literature is to develop some expertise in one's area, to see what new contribution can be made and to receive some ideas for developing a research design. Thus, the previous studies can't be ignored because they provide the foundation to the present study. In other words, there has to be continuity in research. This continuity in research is ensured by linking the present study with the past research studies. From this, it is clear that the purpose of literature review is to find out what research studies have been conducted in one's chosen field of study and what remains to be done.

The review of literature is a crucial aspect because it denotes planning of the study. The main purpose of literature review is to find out what works have been done in the area of the research problem under study and what has not been done in the field the research study being undertaken. For review study, the researcher uses different books, reports; journal and research studies published by various institutions, unpublished dissertations submitted by master level students have been reviewed.

It is divided into three headings:

- Book Review (Conceptual Frame work)
- Review of International studies
- Review of Journal and Articles
- Review of Previous Thesis

2.2 Book Review

2.2.1 Meaning and concept of bank

The first banks were probably the religious temples of the ancient world, and were probably established in the third millennium B.C. Banks probably predated the invention of money. Deposits initially consisted of grain and later other goods including cattle, agricultural implements, and eventually precious metals such as gold, in the form of easy-to-carry compressed plates. Temples and palaces were the safest places to store gold as they were constantly attended and well built. As sacred places, temples presented an extra deterrent to would-be thieves. There are extent records of loans from the 18th century BC in Babylon that were made by temple priests/monks to merchants. Banks date back to ancient times.

During the 3rd century AD, banks in Persia and other territories in the Persian Sassanid Empire issued letters of credit known as ṣakks. Muslim traders are known to have used the cheque or ṣakk system since the time of Harun al-Rashid (9th century) of the Abbasid Caliphate. In the 9th century, a Muslim businessman could cash an early form of the cheque in China drawn on sources in Baghdad, a tradition that was significantly strengthened in the 13th and 14th centuries, during the Mongol Empire. Fragments found in the Cairo Geniza indicate that in the 12th century cheques remarkably similar to our own were in use, only smaller to save costs on the paper. They contain a sum to be paid and then the order "May so and so pay the bearer such and such an amount". The date and name of the issuer are also apparent. The earliest known state deposit bank, Banco di San Giorgio (Bank of St. George), was founded in 1407 at Genoa, Italy. Banking in the modern sense of the word can be traced to medieval and early Renaissance Italy, to the rich cities in the north like Florence, Venice and Genoa. The Bardi and Peruzzi families dominated banking in 14th century Florence, establishing branches in many other parts of Europe. Perhaps the most famous Italian bank was the Medici bank, set up by Giovanni Medici in 1397.

The name bank derives from the Italian word banco "desk/bench", used during the Renaissance by Jewish Florentine bankers, who used to make their transactions above a desk covered by a green tablecloth. The earliest evidence of money-changing activity is depicted on a silver drachma coin from ancient Hellenic colony Trapezus

on the Black Sea, modern Trabzon, 350–325 BC, presented in the British Museum in London. The coin shows a banker's table laden with coins, a pun on the name of the city. In fact, even today in Modern Greek the word Trapeza means both a table and a bank.

During its industrial development period, U.K used bank credit to fulfill its working capital need. In 19th century, during the industrialization process of France and Germany, banks played an important role in industrial finance and growth of the nation. In general meaning, bank is an institution that deals with money. A bank performs several financial monetary and economic activities, which are vital for economic development of a country. It is a monetary institutional vehicle for domestic resource mobilization of the country that accepts deposits from various sources and invests such accumulated resources in the fields of agriculture, trade and commerce etc.

The term commercial bank came about as a way to distinguish it from an "investment bank." The primary difference between a commercial bank and its counterpart is that a commercial bank earns revenue by issuing primary loans from its pool of deposits while an investment bank brings debt and equity offerings to market for a fee. Among its assets, including loans, a commercial bank holds a portfolio of other securities to generate proprietary income.

A commercial bank is a financial intermediary, which collects credit from lenders in the form of deposits and lends in the form of loans. A commercial bank holds deposits for individuals and businesses in the form of checking and savings accounts and certificates of deposit of varying maturities while a commercial bank issues loans in the form of personal and business loans as well as mortgages.

It is a source of economic development and it maintains economic confidence of various segments and extends credit to the people. Thus, the activities of commercials banks are to eliminate poverty, reduce unemployment problem and increase economic growth. Modern commercials banks can be identified by different names, such as business Banks, retails banks, clearing banks, Joint venture banks, Merchant Banks etc. No matter what name we give to banks they all perform the same basic functions

i.e. they provide a link between lenders those who have surplus money but wish to borrow for investment in productive purpose. Basically, by charging a rate of interest to borrowers slightly higher than they to pay to lenders, the bank makes their profit. This is known as financial intermediaries. The first public bank "The bank of Venice" was established in Italy in 1357 A.D.

Different countries in the world followed the footsteps of this bank to incorporate banking institutions in their countries. The evolution of "The Bank of England" in the kingdom of England in 1694 A.D brought remarkable changes in the process of establishing banking institution in the world. The establishment of this bank was a big milestone in the history of banking development. It is believed that the idea of commercials banks rapidly spread all over the world only after the inception of this bank.

In Nepal, development of banking is relatively recent. The history of banking system in Nepal in the form of money lending can be traced back in the reigning period of Gunakam Dev, 'The king of Kathmandu' *(Nepal Bank Limited, Nepal Bank Patrika; 2037:1)* Tankadhari a 'special class of people' was established to deal with the lending activities of money toward the end of fourteen century at the ruling period of King Jayasthiti Malla. *(Nepal Bank Limited, Nepal Bank Patrika; 2037: 2)* During the Prime Ministerial period of Rannodip Singh, one financial institution was established to give loan facilities to the government staff and loan facilities to the public in general in the term of 5% interest but 'Tejarath' did not accept money from public *(Nepal Bank Limited, Nepal Bank Patrika; 2037: 2)*

On 30th Kartik, 1994, Nepal Bank limited was established for the first time to provide modern and organized banking facilities. Up to B.S. 2012, only NBL provided services to the public as an organized bank. Later, NRB Act 2012 was made to establish NRB as a central bank to manage, control and develop monetary system in Nepal. NRB was formally establish on 14th Baisakh, 2013 and its capital at the starting time was 1 crore. Similarly, Rastriya Banijya Bank was set up in B.S. 2022 to fulfill the growing needs of the country. The birth of this bank brought a new landmark in the history of banking facility in Nepal. Like other developed countries, Nepal also took the policy of open economy and liberal, to develop good competition

in the banking field. Hence, the JVB/CB policy is taken. Today 28 commercials banks are operating to provide modern banking services and facilities to boost the economic condition of country.

The financial sector reform was initiated in mid 1980s under the liberal economic policy of Nepal Government. Under this policy, Nepal Government first opened the banking sectors to foreign investors. In July 1985, commercial banks were allowed, for the first time to accept current and fixed deposits of foreign currency (US dollar and sterling pound). On May 26 1986, NRB deregulated the interest rate regime and authorized commercial banks to fix interest rate at any level above its minimum prescribed levels.

2.2.2 Meaning of capital structure

Capital Structure refers to the relationship among various long term forms of financing which includes mainly three types securities i.e. equity shares, preference shares and debenture. It is sometimes known as financial plan, refers to the composition of long-term sources of funds such as debentures, long-term debt, preference share capital and equity share capital including reserves and surplus. The combination of a company's long-term debt, specific short-term debt, common equity, and preferred equity; the capital structure is the firm's various sources of funds used to finance its overall operations and growth. Debt comes in the form of bond issues or long-term notes payable, whereas equity is classified as common stock, preferred stock, or retained earnings. Short-term debt such as working capital requirements also is considered part of the capital structure. The proportion of short-term and long-term debt is considered in analyzing a firm's capital structure.

In finance, capital structure refers to the way a corporation finances its assets through some combination of equity, debt, or hybrid securities. A firm's capital structure is then the composition or 'structure' of its liabilities. For example, a firm that sells $20 billion in equity and $80 billion in debt is said to be 20% equity-financed and 80% debt-financed. The firm's ratio of debt to total financing, 80% here is referred to as the firm's leverage. In reality, capital structure may be highly complex and include tens of sources. Gearing Ratio is the proportion of the capital employed of the firm which come from outside of the business finance, e.g. by taking a short-term loan etc.

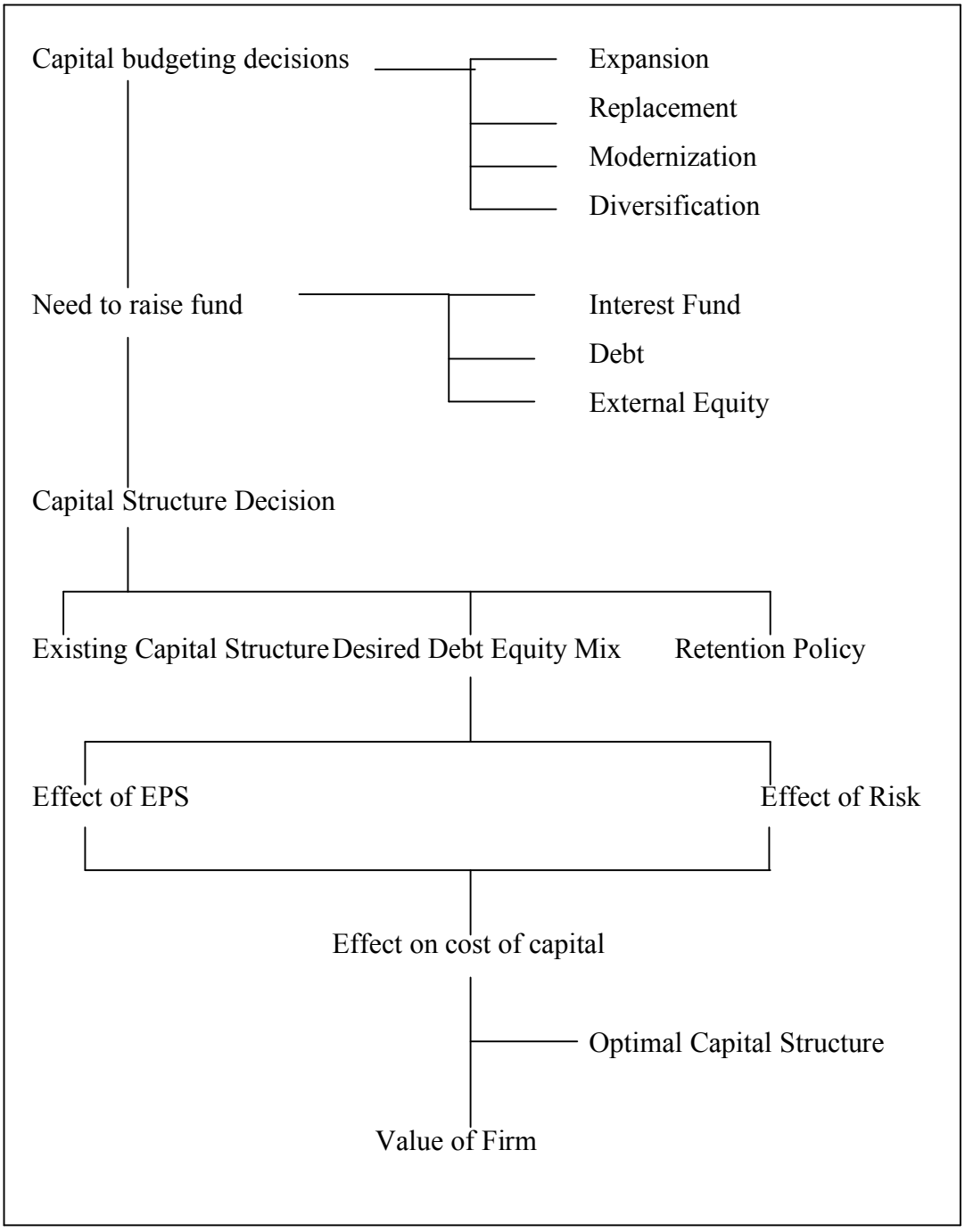
Capital structure refers to the mix of long term sources of funds, such as debentures, long-term debt, preference share capital and equity share capital including reserves and surplus *(Pandey; 1999:18).*

Capital structure is the permanent financing of the firm, represented primarily by long-term debt, preferred stock and common equity but excluding all short-term credit. Thus, a firm's capital structure is only a part of its financial structure. Erza Soloman expresses the optimum capital structure and its implications as: optimum leverage can be defined as that mix of debt and equity which will maximize the market value of the claims and ownership interest represented on the credit side of the balance sheet. Further, the advantages of having an optimum does exist, is two fold: it maximizes the value of the company and hence the wealth of its owners, it minimizes the company's cost of capital which in turn increases its ability to final new wealth creating investment opportunities. Also, by increasing the firm's opportunity to engage in future wealth – creating investment, it increases the economy's rate of investment and growth *(Solomon; 1969:132)*

In general, analysts use three different ratios to assess the financial strength of a company's capitalization structure. The first two, the so-called debt and debt/equity ratios, are popular measurements; however, it's the capitalization ratio that delivers the key insights to evaluating a company's capital position. The debt ratio compares total liabilities to total assets. Obviously, more of the former means less equity and, therefore, indicates a more leveraged position. The problem with this measurement is that it is too broad in scope, which, as a consequence, gives equal weight to operational and debt liabilities. The same criticism can be applied to the debt/equity ratio, which compares total liabilities to total shareholders' equity. Current and non-current operational liabilities, particularly the latter, represent obligations that will be with the company forever. Also, unlike debt, there are no fixed payments of principal or interest attached to operational liabilities. The capitalization ratio (total debt/total capitalization) compares the debt component of a company's capital structure (the sum of obligations categorized as debt + total shareholders' equity) to the equity component. Expressed as a percentage, a low number is indicative of a healthy equity cushion, which is always more desirable than a high percentage of debt.

The relationship of optimal capital structure with other elements of financial management and the capital structure process can be shown with the help of following figure:

Fig.2.1 The relationship of optimal capital structure with other elements of financial management and the capital structure process



2.2.3 Approaches to Capital Structure

Capital Structure is the long-term source of financing used by the firm. In other words, capital structure by definition is the amount of long-term debt, preferred stock and common stock used to finance the firm. According to Brigham, "Capital Structure refers to the appropriate target capital structure that maximizes the price of stock which in turn maximizes the value of the firm."

The Theories of capital structure are Relevant Theory and Irrelevant theory.

According to Relevant theory "capital structure affects the value of firm."
Relevant theory has two approaches:

1. Net Income Approach (NI)
2. Traditional Approach

According to Irrelevant Theory "capital structure does not affect the value of firm".
Irrelevant theory has two approaches:

1. Net Operating Income Approach (NOI)
2. Modigliani and Miller Approaches (MM)

This section is developed to discuss briefly about the theoretical concept regarding the theories of capital structure and financial leverage.
In order to have better understanding of capital structure theory, assumption and definitions are given below:

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

- Two types of capital are employed, long-term debt and shareholders equity.
- There is no tax on corporate income.
- The firm's total assets are fixed but its capital structure can be changed immediately by selling debts to repurchase common stocks or stock to retire debt.
- All investors have the same subjective probability distribution of expected future operating earnings (EBIT) for a given firm, that is, investors have homogeneous expectations.
- The operating earnings of the firm are not expected to grow, that is, the firm's

expected EBIT is same in all future periods.

- The firm's business risk is constant over time and is independent of its capital structure and financial risk.
- The firm is expected to continue indefinitely.

In addition to above assumption, the following symbols are employed.

S= Total market value of the Stocks (Equity)

B= Total market value of the Bonds (Debt)

V= Total market value of the Firm = B+S

EBIT = Earnings before Interest and Taxes = Net Operating Income (NOI)

I=Interest Payments

- Debt

  Cost of debt (kd) = Interest/Debt = I/B

  So, Value of Debt (B) = Interest/ kd

  = I/ kd

- Equity or common stock

  Cost of equity capital (ks)=d1/ Po +g

  Where,

  d1=next dividend

  Po=Correct price per share.

  g=expected growth rate.

- Overall or Weighted Average cost of capital

  K=Kd(B/V) + Ks(S/V)

  = Kd(B)/B+S + Ks(S)/B+S

  The Total value of the firm is thus,

  V = B + S

  = I/Kd + EBIT-I/Ks

(Weston and Brigham; 1992: 741)

2.2.3.1 Traditional Approach

The traditional view of capital structure, which is also known as an Intermediate approach, is a compromise between the Net Income Approach and the Net Operating Income Approach. It states that when a company starts to borrow, the advantages the disadvantages. The cheap cost of debt, combined with its tax advantage, will cause the

WACC to fall as borrowing increases. However, as gearing increases, the effect of financial leverage causes shareholders to increase their return (i.e. the cost of equity rises). At high gearing the cost of debt also rises because the chance of the company defaulting on the debt is higher (*i.e*. bankruptcy risk). So at higher gearing the WACC will increase.

According to this view, the value of firm can be increased or the cost of capital can be reduced by a judicious mix of debt and equity capital, and that an optimum capital structure exists of every firm. This approach very clearly implies that the cost of capital decreases within the reasonable limit of debt and then increases with leverage. Thus, an optimum capital structure exists, and it occurs when the cost of capital is minimum or the value of firm is maximum *(Barges; 1983:44).*

The statement that debt funds are cheaper than equity funds carries the clean implication that the cost of debt plus the increased cost of equity together on the weighted basis will be less than the cost of equity, which existed on the equity before debt financing. That is the weighted average cost of capital will decrease with the use of debt up to a limit. According to the traditional position, the manner in which the overall cost of capital reacts to changes in capital structure can be divided into three stages.

First Stage: Increasing Value

The first stage starts with the introduction of debt in the firm's capital structure. In this stage, the cost of equity (Ke) either remains constant or rises slightly with debt because of the added financial risk. But it does not increase fast enough to offset the advantage of low cost debt. In other words, the advantage arising out of the use of debt is so large that, even after allowing for higher cost of equity, the benefit of the cheaper sources of funds are still available. As a result the value of the firm (V) increases as the overall cost of capital fails with increasing leverage. During this stage cost of debt (Kd) remains constant or rises only modestly. The combined effect of all these will be reflected in increase in market value of the firm and decline in over all cost of capital (K). *(Soloman; 1969:139)*

Second Stage: Optimum Value

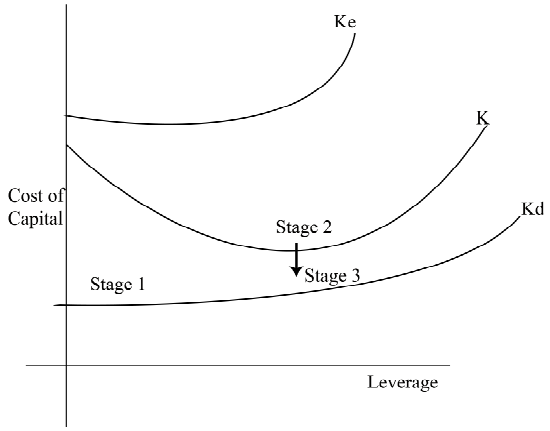
In the second stage, further application of debt will raise cost of debt and equity capital so sharply as to offset the gains in net income. Hence, the total market value of the firm would remain unchanged. While the firm has reached a certain degree of leverage, increase in it has a negligible effect on the value of the firm or overall cost of capital of the firm. The increase in the degree of leverage increases the cost of equity due to the added financial risk that offsets the advantage of low cost debt. Within the range of such debt level or at a specific point, the value of the firm will be maximum or the cost of capital will be minimum. *(Pandey; 1999:358)*

Third Stage: Declining Value

Beyond the acceptable limit of leverage, the value of the firm decreases with the increase of the leverage or the overall cost of capital increases with the additional leverage. This happens because investors perceive a high degree of financial risk, which increases the cost of equity by more than enough to offset the advantage of low cost debt. The overall effect of these three stages is to suggest that the cost of capital is a function of leverage, i.e. first falling and after reaching minimum point or range it would start rising.

The relation between cost of capital and leverage is graphically shown in given figure.

Fig 2.2. The effect of Leverage on Cost of Capital under Traditional Theory



In figure 2.2, it is assumed that Ke rise at an increasing rate with leverage, whereas Kd is assumed to rise only after significant leverage has occurred. At first, the weighted cost of capital, K, declines with leverage because the rise in Ke does not

entirely offset the use of cheaper debt funds. As a result, K declines with moderate use of leverage. After a point, however, the increase in Ke more than offset the use of cheaper debt funds in the capital structure, and K begins to rise. The rise in k is supported further once Kd begins to rise. The optimal capital structure is point X. thus the traditional position implies that the cost of capital is not independent of capital structure of the firm and that there is an optimal capital structure. *(Srivastav; 1984:881)*

2.2.3.2 Net Income Approach

David Durand proposed the Net Income Approach. This approach states that firm can increase its value or lower the cost of capital by using the debt capital. According to NI approach, there exists positive relationship between capital structure and valuation of firm and change in the pattern of capitalization bring about corresponding change in the overall cost of capital and total value of the firm. Thus, with an increase in the ratio of debt to equity, overall cost of capital will decline and market price of equity stock as well as value of firm will rise. The converse will hold true if ration of debt to equity tends to decline.

The approach assumes no change in the behavior of both stockholders and debt holders as to the required rate of return in response to a change in the debt-equity ratio of the firm. They want to invest since debt holder are exposed lesser degree of risk, assumed of a fixed rate of interest and are given preferential claim over the profit and assets, the debt holders' required rate of return is relatively lower than that of equity holders. So, the debt financing is relatively cheaper than equity. For this reason, at constant cost of equity (Ke) and cost of debt (Kd), the overall cost of capital (K) declines whit the increased proportion of the debt in the capital structure. This suggests that higher the level of debt, lower the overall cost of capital and higher the value if firm. It means that a firm attends an optimal capital structure when it uses 100% debt financing. Running a business with 100% debt financing, however, is quite uncommon in the real world.

This approach is base on the following assumptions:

- The cost of equity and debt remain constant the acceptable range of leverage.

- The corporate income taxes do not exist.
- The cost of debt rate is less than the cost of equity.
- The increasing leverage brings about no deterioration in the equity of net earnings so long as borrowing is consigned to the amount below the acceptable limits.

The firm can achieve optimal structure by making judicious use of debt and equity and attempt to maximize the market price of its stock. *(Durand; 1959:91-116)*

In sum, as per NI approach, increase in ratio of debt to total capitalization brings about corresponding increase in total value of firm and decline in cost of capital. On the contrary, decrease in ration of debt to total capitalization causes decline in total value of firm and increase cost of capital. Thus, this approach is appeared as relevancy theory. *(Pandey; 1999:26)*

Graphically, the effect of leverage on the firm's cost of capital and the total market value of the firm is shown below.

Fig. 2.3. The effect of Leverage on Cost of Capital

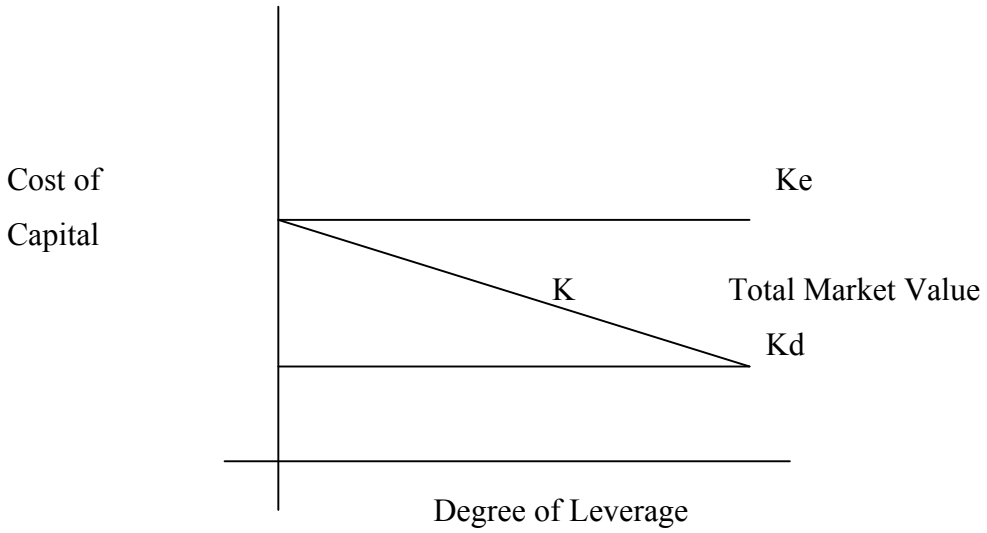


Fig. 2.4 The effect of leverage on Total Market Value of the Firm

V=B+S

Cost of
Capital

Degree of Leverage

The figure no. 2.3 and 2.4 show a continuous decrease in K with the increase in debt-equity ratio, since any decrease in K directly contributes to the value of the firm. It increases with the increase in the debt-equity ratio. Thus the financial leverage, according to the NI approach is an important variable in the capital structure decision of a firm.

Under the NI approach, a firm can determine an optimal capital structure. If the firm is unleveled the overall cost of capital will be just equal to the equity capitalization rate. In brief, the essence of the net income approach is that the firm can lower its cost of capital by using debt. The approach is base on the crucial assumption that the use of debt does not change the risk perception of the investor. Consequently, the interest rate of debt (Kd) and the equity capitalization rate (Ke) remain constant to debt. Therefore, the increased use of debt results in higher market value of shares and as a result, lower overall cost of capital (K). *(Pandey; 1999:26).*

2.2.3.3 Net Operating Income Approach (NOI)

NOI approach is another behavioral approach suggested by Durand David. This approach is diametrically opposite from the NI approach with respect to the assumption of the behavior of equity holders and debt holders. The essence of this approach is that the leverage/capital structure decision of the firm is irrelevant. The overall cost of capital is independent of the degree of leverage; any change in leverage will lead to change in the value of the firm and the market price of the shares. Net operating approach is slightly different from NI approach, unlike the NI approach in NOI approach, the overall cost of capital and value of firm are independent of capital structure decision and change in degree of financing. Leverage does not bring about any change in the value of firm and cost of capital. *(Khan & Jain; 1997:481)*

Under NOI approach, the Net operating income, i.e. the earning before interest and tax (EBIT), instead of net income is taken as the base. Like the NI approach, the NOI approach also assumes a constant rate Kd, which means that the debt holders do not demand higher rate of interest for higher level of leverage risk. However, unlike the assumption of NI approach, NOI approach assumes that the equity holders do react to higher leverage risk and demand higher rate of return for higher debt-equity ratio. This approach says that the cost of equity increases with the debt level and the higher cost of equity offset the benefit of cheaper debt financing, resulting no effect at all on Overall Cost of Capital (K). *(Pandey; 1999:31)*

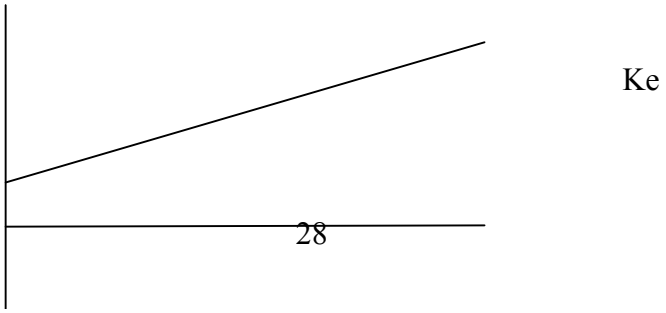
The NOI approach is based on the following assumptions:

- The market capitalizes the value of the firm as a whole. Thus, the split between debt and equity is not important.
- The market uses an overall capitalization rate, K to capitalize the net operating income. K depends on the business risk. If the business risk is assumed to remain unchanged, K is constant.
- The use of less costly debt funds increases the risk of shareholders. This causes the equity-capitalization rate to increase. Thus, the advantages of debt are offset exactly by the increase in the equity capitalization rate, Ke.
- The debt-capitalization rate Kd is constant.
- The corporate income taxes do not exist.

The function of Ks under NOI approach can be expressed in equation as follows:
Ks=K+(K-Kd)B/S

The relationship between financial leverage and K, Ke, and Kd has been graphically depicted in following figures.

Fig. 2.5. The effect of Leverage of Cost of Capital



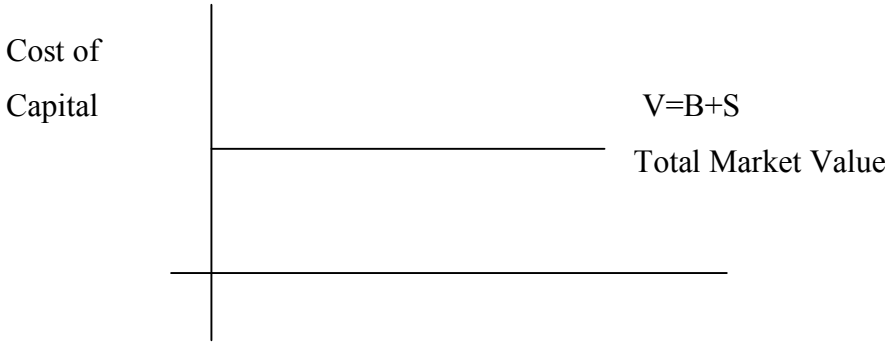
Cost of
Capital K

Total Market Value

Kd

Degree of Leverage

Fig 2.6. The effect of Leverage on value of firm



In the figure 2.5, it is shown that the curve K and Kd are parallel to the horizontal x-axis and Ke is increasing continuously. This is because K and Kd remain constant under all the circumstances but the Ke increases with the degree of increase in the leverage. Thus, there is no single point or range where the capital structure is optimum. It is known obviously from figure 2.5 that under the NOI approach, as low cost of debt is used, its advantage is exactly offset by increase in cost of equity in such a way that the cost of capital remains constant. By this, value of the firm also remains constant. At the extreme degree of financial leverage, hidden cost becomes very high hence the firm's cost of capital and its market value are not influenced by the use of additional cheap debt fund *(Gitman; 1998:791).*

2.2.3.4 Modigliani-Miller Approach (MM approach)

The Modigliani-Miller theorem (of Franco Modigliani, Merton Miller) forms the basis for modern thinking on capital structure. The basic theorem states that, under a certain

market price process (the classical random walk), in the absence of taxes, bankruptcy costs, and asymmetric information, and in an efficient market, the value of a firm is unaffected by how that firm is financed. It does not matter if issuing stock or selling debt raises the firm's capital. It does not matter what the firm's dividend policy is. Therefore, the Modigliani-Miller theorem is also often called the capital structure irrelevance principle. Modigliani was awarded the 1985 Nobel Prize in Economics for this and other contributions. Miller was awarded the 1990 Nobel Prize in Economics, along with Harry Markowitz and William Sharpe, for their "work in the theory of financial economics," with Miller specifically cited for "fundamental contributions to the theory of corporate finance."

Miller and Modigliani derived the theorem and wrote their groundbreaking article when they were both professors at the Graduate School of Industrial Administration (GSIA) of Carnegie Mellon University. The story goes that Miller and Modigliani were set to teach corporate finance for business students despite the fact that they had no prior experience in corporate finance. When they read the material that existed they found it inconsistent so they sat down together to try to figure it out. The result of this was the article in the American Economic Review and what has later been known as the M&M theorem.

The theorem was originally proven under the assumption of no taxes. It is made up of two propositions, which can also be extended to a situation with taxes.

Their proof of this proposition was based upon several assumptions (many of which have subsequently been relaxed without changing the results):

- All investors have complete knowledge of what future returns will be
- All firms within an industry have the same risk regardless of capital structure
- No taxes (we will relax this assumption subsequently)
- No transactions costs
- Individuals can borrow as easily and at the same rate of interest as the corporation
- All earnings are paid out as dividends (thus, earnings are constant and there is no growth)
- The average cost of capital is constant

Consider two firms, which are identical except for their financial structures. The first (Firm U) is unlevered: that is, it is financed by equity only. The other (Firm L) is levered: it is financed partly by equity, and partly by debt. The Modigliani-Miller theorem states that the value of the two firms is the same.

Proposition I:

MM argues that, for the same risk class, the total market value is independent of the debt equity mix and is given by capitalizing the expected net operating income by the rate appropriate to the risk class. This is their proposition I. In equation this can be expressed as follows: *(Pandey; 1999:34)*

Value of the Firm = Market value of debt + Market value of Equity

= Expected net operating income/Expected overall capitalization rate

=EBIT / EBT

For an unleveled Firm,

Vu=EBIT/Ks

Where,

K=Ks in case of unleveled firm.

Proposition I can be expressed in terms of the firm's overall capitalization rate, K, which is the ratio of Net operating income (EBIT) to the market value of all its securities:

K=NOI/S+B

=NOI/V

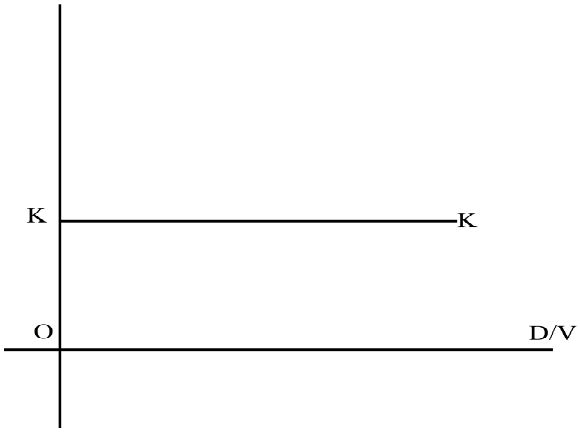
K can also be expressed as

K=Ke(S)/S+B + Ke (B)/S+B

It means K is the weighted average of the expected rate of return on equity and debt capital of the firm since the cost of capital is defined as the expected net operating income divided by the total market value of the firm and since MM conclude that the total market value of the firm is unaffected by the financing mix, it follows that the cost of capital is independent of the capital structure and is equal to the capitalization rate of a pure equity stream of its class. The overall cost of capital function as

hypotheses by MM is shown in figure 2.7.

Fig. 2.7. The cost of capital under the MM hypothesis.



Thus two firms identical in all respects except for their capital structure cannot command different market values nor have different cost of capital. But if there is discrepancy in the market values or the cost of capital, arbitrary will take place, which will enable investors to engage in personal leverage to restore equilibrium in the market. *(Pandey; 1999:37)*

Proposition II

MM proposition II, which defines the cost of equity, follows from their proposition I and shows the implications of the net operating approach. The proposition II states that the cost of equity rise proportionately with the increase in the financial leverage in order to compensate in the form of premium for bearing additional risk arising form the increasing leverage. The equation for the cost of equity can be derived from the definition of the average cost of capital:

$K=Ke(S)/S+B + Kd(B)/S+B$

$Ke=K(B+S)/S – Ke(B)(B+S)/(S+B)S$

$Ke=K(1+D/S) – Kd(D)/S$

$Ke=K+(K-Ke)B/S$

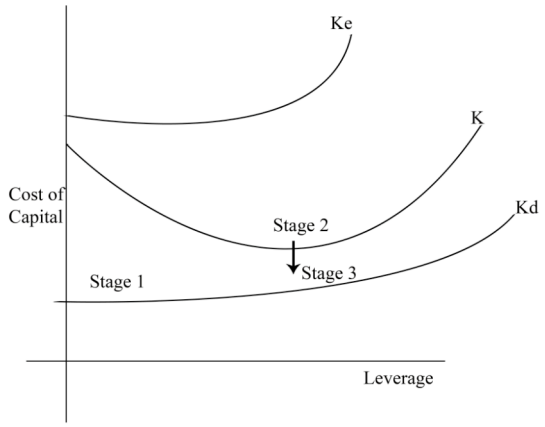
Ke (Cost of Equity)= NOI-I/S = NI/S

The stated equation states that for any firm in a given risk class the cost of equity, Ke, is equal to the constant average cost of capital, K, plus a premium for the financial

risk, which is equal to debt-equity ration times the spread between the constant average cost of capital and the interest rate. As the proportion of debt increases, the Cost of Equity increases continuously even though K and Kd are constant.

The crucial past of the MM hypothesis is that K will not rise even if very excessive use of leverage is made. This conclusion could be valid if Kd remains constant for any degree of leverage. But in practice, Ks increase with leverage beyond a certain acceptable level of leverage. However, MM maintains that even if Ke is a function of leverage, K will remain constant as Ke will increase at a decreasing rate to compensate.

Fig 2.8. Behavior of K, Kd and Ks under M-M hypothesis



It is clear from the figure 2.8 that Ke will increase till the marginal rate of interest (Kd) is below the cost of capital. As soon as the marginal rate of interest cuts the Cost of Capital, Ke will start falling. *(Pandey; 1999:37)*

2.2.4 Financial Leverage

Financial leverage (FL) takes the form of a loan or other borrowings (debt), the proceeds of which are reinvested with the intent to earn a greater rate of return than the cost of interest. If the firm's rate of return on assets (ROA) is higher than the rate of interest on the loan, then its return on equity (ROE) will be higher than if it did not borrow because Assets = Equity + Debt (see accounting equation). On the other hand, if the firm's ROA is lower than the interest rate, then its ROE will be lower than if it did not borrow. Leverage allows greater potential returns to the investor that otherwise would have been unavailable but the potential for loss is also greater because if the investment becomes worthless, the loan principal and all accrued

interest on the loan still need to be repaid.

Margin buying is a common way of utilizing the concept of leverage in investing. An unlevered firm can be seen as an all-equity firm, whereas a levered firm is made up of ownership equity and debt. A firm's debt to equity ratio is therefore an indication of its leverage. This debt to equity ratio's influence on the value of a firm is described in the Modigliani-Miller theorem. As is true of operating leverage, the degree of financial leverage measures the effect of a change in one variable on another variable. Degree of financial leverage (DFL) may be defined as the percentage change in earnings (earnings per share) that occurs as a result of a percentage change in earnings before interest and taxes.

Debt to equity is generally measured as the firm's total liabilities divided by shareholders' equity.

Debt-to-equity ratio = D / E
Debt-to-value ratio = D / (D+E) = D/ A= Debt to Assets
Interest coverage ratio = EBIT / Interest.
Where,

D = liabilities,
E = equity,
A = total assets,
EBIT = Earnings before interest and taxes and
Interest = Interest payment

2.3 Review of International Studies

Under this, studies on International level from renowned researchers are included.

2.3.1 The Modigliani and Miller's First Study

In their first study they used the previous works of "Allen And Smith" in support of their independence hypotheses in the first part of their work M – M tested their proposition I, the cost of capital is irrelevant to the firms capital structure by correlation after tax cost of capital with leverage B/V they found that the correlation co-efficient are statically in significant and positive in sign. The regression line

doesn't consist of curvilinear "U" Shaped cost of capital key of traditional view, when the data are shown in setter diagram. In the second part of their study, they tested their proposition II the expected yield on common share is a linear function of debt to equity ratio. The second part of their study is consistent with their views i.e. if the cost of borrowed funds increases, the cost of equity will decline to offset this increases Modigliani and Miller second study. M – M were conducting the second study in 1963 with correcting their original hypotheses for corporate income taxes and expected cost of capital to be affected by leverage for its tax advantages, therefore they wanted to test whether leverage had tax advantages or not, for this they conducted the mathematical analysis regarding the effect of leverage and other variable on the cost of capital, they found that the leverage is significant only because of the tax advantage involved. *(Modigliani & Miller; 1958:261)*

2.3.2 The Van Horn's Study

James C. Vanhorn has also presented controversial decision about capital structure. According to him financial signaling occurs when capital structure change conveys information to security holders. It assuming as symbolic information between management and stockholders management behavior result in debt issue being regarded on gold news by investors and stock issue as bad news empirical evidence seems to be consistent with the nations.*(Van Horne; 1985:277)*

2.4 Review of journal and Articles

Some of the journals and articles published by management experts in the aspect of capital structure management under foreign context and Nepalese context have been reviewed in this section.

2.4.1 Review of related studies under foreign context

Wiper's Study

Wiper R (1960) in *"Financial Structure and Value of the Firm"* has made a test to empirical relationship between financial structure and value of the firm he tried to eliminate the principle problem of empirical study on the leverage and attempted to offer what were hoped to be more, alternative's in determining the relationship

between leverage and cost of capital. He found the shareholder's wealth could be enhanced by judicious by judicious use of debt financing.

Weston's Study

Weston J.F. (1963) in "*A Test of Cost of Capital Proposition"* made some important improvement in the cost of capital modes. He included firm size and growth as additional explanatory in his model. He found the regression co-efficient of leverage to be positive and significant, when he used M – M model. However when the multiple regression was shown he found that the correlation coefficient is significant and the regression co-efficient of leverage in negative and significant when the influence of growth is isolated leverage is found to be negative correlation with the cost of capital. He concluded that the apparent lack of influence of leverage on the overall cost of capital observed by M – M was due to the negative correlation of leverage with earning growth Weston also listed M – M proposition II.

Sharma and Rao's Study

Sharma L.V.L.N.and Rao K.S (1969) in *"Leverage and the Value of the Firm"* concluded the list of M-M hypothesis on the influence of debt on the value of a firm to a non-regulated industry. They argued that estimate of cost of capital arrived at through the model will be accurate only when their hypothesis on debt and dividends are correct this is an essential condition for the employment of the model.

Calculation of variables was done in exactly the same ways done by M.M. with two exceptions. They experimented with total assets and sale for deflecting the variables and the result are meaningful when fixed of total assets of fixed assets was used as the growth variable the result were some what inconsistent with economic reasoning they therefore took the earning froth rate as the growth variable because this would and account growth of earning due both to the utilization of existing capacity and to the additional of new capacity they include that debt has non tax advantage also thus this paper-support-that the investors refer corporate to personal leverage and therefore the value of a firm sizes up to leverage rate considered prudent.

Rao and Litzaberge's Study

Rao, C.V and Litzaberge,R.H. (1970) in *"Leverage and the Cost of Capital in Less Developed Capital Market Comment"* conduct the study of the effect of capital

structure on the cost of capital in loss developed and less efficient capital market (India) and in highly developed and efficient capital market (US) They used 28 India utilize and 77 American utilized. They conducted the study for five cross section years 1962-1966. They found that the result for the American utilities are constant to the M-M proposition except for the advantage of debt financing the cost of capital independent of capital structure and result also supported that the M-M hypothesis that investors are different for the firm's dividend policy in case of India utilities, the result are in consistent to the M-M approach and support the traditional belief the judicious use of financial leverage will lower the firms cost of capital and investors have a reference for current dividends. In conclusion, they contended that the M-M approach after allowing for the tax advantage of debt the firms cost of capital is independent of capital structure does not appear to be applicable in the case of a developing economy.

2.4.2 Review of related studies under Nepalese context

Dr. Manohar Krishna Shrestha (1985) conducted a thesis research on *"Analysis of Capital Structure in Selected Public Enterprises"*. The study found that the public enterprises have a very confusing capital structure. The determination of capital structure is greatly influenced by the inflow of International Donor Agency long-term credit through the medium of Government of Nepal. In a way, neither the public enterprises nor HMG developed criteria in determining capital structure nor this is the reason as to why debt equity ratio became a ticklish problem. Also true that the calculation of equity capitalization rate and overall capitalization rate according to given data provide very fantastic results in many cases, although they carry valid and meaningful results in some instances. As such, the use of Net Operation Income Approach and Net Income Approach on the whole is more an academic exercise rather than proving much valid. While determined and there is growing tendency among most of public enterprises to have least combination of debt with equity to escape financial obligations as far as possible.

Again, it is an implied fact that the contribution of debt to procurement of assets shows significant deviations. The earning of the public enterprises in most cases does not prove satisfactory except in limited few. There are many unfavorable side effects such as growing accumulated losses climbing greater heights and little maintenance of

tax provisions. He suggested that debt equity ratio should neither be highly levered to create too much financial obligations that lie beyond capacity to meet nor should it be much low levered to infuse operational strategy to bypass responsibilities without performance. (The Nepalese Journal of Public Administration, March 1985)

Rima D Shrestha (1999) conducted a thesis research on *"Focus on Capital Structure (Selected and listed Public companies)"*. She found that in Nepalese public enterprises the definition of capital structure is not a problem but what matters is the problem of putting the definition of capital structure into practice. As for instance, public enterprises as well as listed public limited companies have higher debt equity mix. As a result their liabilities have increased together with higher fix charges due to failure to utilize borrowed capital properly. Thus in market circle investors often express dissatisfaction for not getting expected return as per commitment made by the listed companies in the prospectus to the investing public. This is even very serious in government owned companies.

The researcher clearly suggested that the capital structure of both selected public enterprises and listed companies have high proportion of debt mixed with equity. Most of them have to face high interest burden on one side and increasing accumulated losses on the other hand. She further suggests to the government that it is important to monitor the use of debt and its impact on the overall earnings of enterprises. This factor has been neglected by HMG. The bitter experience reveals that government in these enterprises has not been able to specify the capital structure mix. (*Pravha Journal of Management, Vol 10, no.1, 1999*)

Sudhir Poudyal (2002) in his article, "*Capital Structure: It's impact of value of firm*" concentrated his study to examine the interrelationship between the objective 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 assumption is laid down to analyze the effect of capital structure. Various statistical and financial tools are used to extract reasonable figure for the hypothetical firm. It is 0bserved that minimum weighted cost of capital maximizes the value of the firma and price per share are attended at debt ratio of 30%. Furthermore, if there is flexibility to select the capital structure in any proportion,

optimal capital structure ranges from 30% to 40%. An optimal capital structure would fulfill the interest of equity shareholders and financial requirement of a company as well as other concerned group.

2.5 Review of previous thesis

Padam Mani Kafle (2001) has conducted research on *"A Comparative Analysis of Capital Structure Between Lumbini Sugar Factory Limited and Birjung Sugar Factory Limited".* The main objective of this study was to analyze the various ratio of capital structure decision, net worth, earning before interest and tax and to suggest measures to improve the policy of the companies. Beside this the objectives taken by the study are:

1. To examine the status of the companies with respect to cash, credit and inventory management.
2. To analyze the liquidity composition of WC, assets utilization and profitability position of selected manufacturing companies.
3. To make an overall comparison of capital structure management managed by various manufacturing companies.

According to him both the companies were facing serious deterioration in earnings according to the net operating income approach. The major findings of the study are listed below:

1. Both the companies had defective capital structure as debt equity ratio was not so much satisfactory.
2. Birjung Sugar Factory had high debt equity ratio indicating more financial risk while Lumbini Sugar Mills had low debt equity ratio, which indicates access power of equity holders.
3. Both the companies were unable to pay interest because they were operating at loss.
4. Birjung sugar Factory was highly levered Lumbini Sugar Factory was low levered both the companies had defective capital structure. It is suggested that the companies should change the debt equity ratio for sound capital structure management to maintain it in 1:1 ratio.

Ganesh Prasad Neupane (2002) conducted research on *"A Study on Capital &*

Assets Structure of Nepal Bank Limited (NBL)". The main objective of this study were:

1. To study the capital and assets structure of the selected bank.
2. To find out comparative position in capital structure and profitability of NBL.
3. To analysis interrelation between different ratio, analysis of component parts of capital structure; debt equity ratio, net worth, deposit/investment ratio, total asset ratio etc.
4. To analyze the relationship of debt and total capital.

The research analyzed the different financial aspects of NBL and the major findings were:

1. The total deposit and total investment were not significantly related.
2. The bank deposit was very low compared to the demand of money.
3. The capital structure of the bank is very week, thus the bank is not able to fulfill its customers need.
4. The bank is not doing sufficient advertisement to introduce its facility to connect to the mass.
5. The net worth was used in unproductive assets of the bank and further commended that the bank needs to have productive use of its net worth.
6. The problem faced by the commercial bank is the lack of awareness of people towards saving and investing money through bank
7.

Anjana Shah (2004) made the study on *"A Study of the Capital Structure of Selected Manufacturing Companies",* with a purpose to access the debt serving capacity of the mentioned manufacturing companies. The objective of her study were:

1. To examine the relation between return on equity and total debt, return on equity and debt ratio, earning after tax and total debt and interest and earning before interest and tax.
2. To make an overall comparison of capital structure managed by various manufacturing companies.
3. To examine the correlation and the significance of their relationship between different ratios related to capital structure.

The methodology used in the study included financial as well as statistical tools. The

financial tools used were ratio analysis and statistical tools used were correlation coefficient and regression analysis. The study revealed that:

1. Nepal lever Ltd has not been using long-term debt and it was fully equity based.
2. The bottlers Nepal Ltd is free of long-term debt because of improved cash flows and effective management.
3. The Sriram spinning mills has 66.33% of assets financed with debt and hence there is less flexibility to the owners.
4. The degree of financial leverage analysis of Jyoti spinning mills shows the failure of the company to gain expected profits.
5. The Arun Vanaspati Udhyog has a fluctuating Debt Equity ratio. Its long-term debt is decreasing and only creditors make a small share of equity.

Aruna Sthapit (2007) made the study on *"A Study Of Capital Structure Management Of Commercial Banks*". The Capital Structure decision is crucial 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 present study evaluated the capital structure ratios and the relationship between capital structure and profitability of firms with the following objective:

1. To find out comparative position in capital structure between NBL and HBL.
2. To examine the correlation and the significance of their relationship between different ratios related to capital structure.
3. To analyze the relationship of debt and total capital.
4. To analyze the profitability position of NBL and HBL.

The study revealed the following findings:

1. The selected banks are financially leveraged with a large percentage of total debt being short term.
2. Both commercial banks have been using debt. The higher D/E ratio constitutes that the outsider's claim in total assets of the banks in owner's claim.
3. The ICR shows that the both banks are able in paying interest in comparison NBL is operating efficiently.
4. Trend Analysis of ROE, EBIT and EPS for NBL is impressive and in growing

trend. But trend analysis of HBL of not good.

5. The study shows, NBL has paid higher dividend compared to HBL.
6. The private sector banks have been successful in increasing their deposits .The operating profits have gone up, so have the provision for loan loss.
7. Banking sector in Nepal is somehow doing well even though it has to face a number of hurdles due to instability in economy and political situation of the country.

Rajesh Kumar Shrestha (2008) made the study on *"The effect of Capital Structure in Cost of Equity"*. The optimal capital structure is the level of debt-equity, which grants high earning to shareholder and maximizes the market value of the share. The optimal capital structure differs in individual firm within the industry. The main objective were:

1. To study the effect of Capital structure in the cost of equity
2. To study the balance between the degree of risk, return and profitability.
3. To test whether the cost of capital fluctuates with the capital structure of the sampled company.
4. To identify the problems in establishing capital structure and its impact on cost of equity.

The major findings of the study were:

1. The debt-shareholder's fund ratio calculated in relation to the proportion of funded debt to shareholder's fund which shows percentage of funded debt is many times greater than shareholder's fund financed in bank.
2. The ability of an organization to perform well in the market depends on the efficiency of its capital structure.
3. The Net Operating Income (NOI) approach shows that the proportion of debt and equity in the firm's structure does not have any impact on the firm's value or its cost of capital.
4. When the company employs debt or other fund carrying fixed charges in the capital structure, financial leverage exists.
5. The banks of Nepal are found to be highly levered and the financial mix accounts a higher proportion of debt and it is increasing every year.

Sital Sitaula (2009) made the study on *"A comparative study of capital structure and Profitability"*. The study's main objective was to highlight the comparative analysis of capital structure and profitability between the two competitive banks Nepal Bangladesh Bank Limited and Himalayan Bank Limited.

The study focuses were:

1. To find the comparative effect of capital structure and profitability
2. To find the debt serving capacity of the banks and analyze their capital structure and profitability position.
3. To analyze changes in relation of capital structure and profitability due to change in market structure.
4. To compare the financial performance of selected banks using financial and statistical indicators as profit margins, return on equity (ROE) and total capitalization, and debt-to-equity ratios.

The study concludes that

1. Both banks; NBBL and HBL have extremely used debt capital in its financial structure (i.e. fixed deposits t net worth and total debt to net worth are very high).
2. Debt equity ratio tends to increase on shareholder's equity significantly in both banks.
3. Long term Debt to capital employed ratio highlights the portion of fund financed by long term Debt in the capital employed by the firm. The data shows HBL has fluctuation trend.
4. The available profit of both company can meet debt amount. ICR of HBL is found to be greater than NBBL.
5. Trend Analysis of ROE, EBIT and EPS for HBL is impressive and in growing trend. However, trend analysis of NBBL of not good.
6. Return ratio of both banks is not satisfactory, which shows that being geared up capital structure and insufficient return represents the weak aspects of the banks.
7. It cannot be ascertained to establish the relationship that the capital structure decision strongly effect the profitability incase of both the banks.

2.6. Research Gap

There are various studies accepted on capital structure management of various state owned banks and public limited companies of Nepal. Most of the study indicates that a sound principle of capital structure and its management haven't been followed by the enterprises in Nepal. The basic objective in all of the studies shows analysis of components parts of capital structure ratios, its interrelationship with profitability, debt serving capacity, relation between return on equity-debt, earning before tax and interest. However, their study reveals that they have not been using long-term debt effectively. The net worth of the bank was used in unproductive assets, shows low debt equity ratio and the unhealthy competition of giving high rate of interest to attract the public is deteriorating the effective banking system. Even then, different studies have been carried out regarding the subject matter of gap structure previously by different researchers. But, the research gap among the previous studies and this current study lies firstly in sampled companies and the fiscal years acquired for the financial and statistical calculation.

Secondly, previously made studies included specific manufacturing companies and commercial banks. The current study however is a comparative study of capital structure of two commercial banks; Nabil Bank Limited and Himalayan Bank Limited. Besides the analysis of capital structure ratios, this study has made an attempt to analyze the effect of capital structure on the value of the companies. The study has also made an effort to calculate the future trend of ROE, EBIT and EPS of the selected companies using the trend line method. Further, this study will help research student to carry further studies as well as, it will helpful to the interested groups in the selected companies to analyze their position at present and future.

CHAPTER III

RESEARCH METHODOLOGY

3.1 Introduction

The process of investigation in values a series of well thought and activates of gathering recording analyzing and interpreting the data with the process by which we attempt to solve problems is called research. While methodology is the research method used to list hypothesis. Research methodology is the way to solve systematically the searched problem. Thus "Research Methodology" is the way to solve systematically about the research problem. For this purpose the research is exploratory as well as analytical in order to accomplish the objective of this study. The search methodology has been designed on the basis of secondary data by using useful financial and statistical tools. The research methodologies adopted in this study are discussed in the following manner. This chapter is composed of six sections.

- Research Design
- Population and Period Covered
- Source and Nature of data
- Required tool for the analysis

3.2 Research Design

The formidable problem that follows in the task of defining the researches the preparation of design of research project popularly known as research design. Research design is the main part of the any research work. To fulfill the objectives of the study certain research design is essential so the analysis of this study is based on the nature of data and tools for analysis.

In this study, the attempt is being made to show evolution of capital structure in the commercial banking sector in Nepal and the rules and regulation for it. To fulfill the objectives of the study it emphasizes on historical as well as descriptive research design. It describes and analyzes all the facts that have been collected for the purpose of the study. A study design is the manner that aims to combine relevance to the study

with economy in procedure. This study is based on the analysis of the past and present performance and management of mainly two commercial banks: Nabil Bank Ltd and Himalayan Bank Ltd.

3.3 Populations and Period Covered

The time limit and unavailability of relevant data had forced the researcher met to make research on the few Commercial Banks even through there are altogether 28 commercial banks listed in Table No. 1.1, functioning all over the kingdom and most of their stocks. Among them two have been picked up using sampling method.

1. Nabil Bank Ltd and
2. Himalayan Bank

The popularity of the given banks among the mass for their services is the main reason for the selection. To analyze the capital structure management of Nabil Bank Ltd and Himalayan Bank Ltd, the period covered is of last five years i.e. fiscal years 2004/05 to 2008/2009.

3.4 Sources and Nature of Data

To achieve the objective of the study, secondary data has been used. The secondary data and information have been collected from the various publications and data (published/Unpublished) available in the record of selected companies. The major sources of secondary data are as follows:

- Financial reports of selected banks.
- Various survey conducted by selected companies and other related parties.
- Different bulletin and audited annual reports of related banks.
- Related act and regulations published by Government of Nepal.
- Various studies related to the subject made by the experts and students

Some necessary primary data are also collected in meetings with the related joint venture Bank Manager and other Personal.

Since the data have been obtained from secondary sources after collection of financial

statements, master sheet of financial data have been extracted and tabulated as for the need of this study. In order to process the data, financial statement and other available information have been reviewed. These data have been grouped in different tables and chars according to their nature, Most of the data have been compiled in one form and processed and interpreted as required.

3.5 Required Tools for the Analysis

The main purpose of analyzing the data is to change it from an unprocessed form to an understandable presentation. The analysis of data consists of organizing, tabulating, and performing statistical analysis for which qualitative and quantitative method are used. Tools have been selected according to the nature of data as well as subject matter. The major tools employed for the analysis of the data is the ratio analysis, which established the quantities or numerical relationship between two variable of the financial statement. Besides there the statistical tools are also used.

3.5.1 Financial Tools

The first important tools are the financial tools. Financial tools are used to examine the financial strength and weaknesses of bank. Various financial tools are used to analyze the effectiveness of the working capital structure of commercial banks. Ratio analysis, leverage analysis, EBIT/EPS analysis and other financial tools have been used as financial tools.

3.5.1.1 Ratio Analysis

Ratio Analysis is the powerful tool of financial analysis. Financial ration serpents the relationship between two accounting figure expressed mathematically. Ration analysis is defined as the systematic use of ratio to interpret the financial statements so that the strengths and weakness of a firm as well as its historical performance and current financial condition can be determined. The required financial rations for this study are enabling in detail as follows:

a. Debt equity ratio (Leverage Ratio):

Leverage Ratio measures the contribution of financing by owners compared with financial provided by the outsiders. They also provide some measure of the debt

financing by the calculation of the coverage of fixed charge. It is one of the most popular tools of the long-term financial solvency of the firm. It can be calculated by the long-term debt divided by shareholders' equity. In the calculation, shareholders' equity preference share capital accumulated losses, discount on issue of share etc, so the shareholders' equity is defined as net worth and D/E ratio also called debt to net worth ratio related with the total debt. This debt equity measures the claim of the creditors an owner against the company's assets.

In this study following leverage ratios have been calculated.

$$\text{Debt equity ratio} = \frac{\text{Long-term debt}}{\text{Shareholders' equity}}$$

A high Debt equity ration indicates that the claim of creditors is greater than that of the owners and vice-versa.

b. Debt to Total Capital Ratio

The relationship between creditor's funds and owner's capital can also express in term of debt to total capital ration one approach is to relate the long term debt to the permanent capital of the firm. This ratio highlights the need of long-term debt in the capital employed by the firm. Long-term debt includes the debt, which matures in more than one accounting period whereas capital employed includes long-term debt and shareholder's equity of the firm. This ratio is called the long-term debt to capital debt ratio. Larger the ratio, larger the proportion of long term debt in the capital employed and vice versa. It is calculated by dividing long-term debt with capital employed by the firm. This ratio is also known as debt to permanent capital ratio whereas permanent capital means total assets minus current liabilities.

$$\text{Debt to total capital ratio} = \frac{\text{Long-term debt}}{\text{Total capital}}$$

Permanent Capital consists of shareholders equity as well as long-term debt.

c. Total Debt to Total Asset Ratio

The total debt of the firm comprises long-term debt plus current liabilities while total assets consist of permanent capital plus current liabilities. Assets may be described as valuable resources owned by a business, which have been acquired at a measurable money cost. Assets as an economic resource satisfy three requirements. They are firstly, the resources must be valuable or it may provide future benefits to the operations of the firms; secondly, the resources must be owned, and thirdly the resources must be acquired at a measurable money cost. When intangible assets are the significant, they are frequently deducted from net worth to obtain the tangible net worth of the firm. A comparison of debt ratio for a given company with those of similar firms gives us a general indication, of the credit worthiness and financial risk of the firm. The reason, that is a general indication, is that the assets and cash flows of the firm provide the wherewithal for payment of debt.

$$\text{TD/TA Ratio} = \frac{\text{Total Debt}}{\text{Total Assets}}$$

The ratio however gives somewhat similar in dictation as debt equity ratio.

d. Long term debt to total debt ratio (LTD / TD)

The relationship between long term debt and total debt has a decisive impact on the financial structure of all two companies under study. Debt is considered as the total debt, which includes all secured and unsecured loan. Within these two types of loan there comes long term, short-term debt, debenture, overdraft etc. It is externally borrowed from financial institute. Debt capital is the capital to which a fixed rate of interest should be paid. Interest paid for debt is deductible expenses. It can save the tax. Debt capital is a cheap means of financing. But there is a risk in holding debt capital. Risk in the sense of timely payment of interest and the redeemable value of the end of maturity period. Debt capital should be limited up to a level, which the earning capacity of the firm can support. Otherwise, the company has to sell its assets and be forced to go into liquidation. The ratio of long-term debt to total debt indicates what percentage of company's total debts is included in the form of long term debt.

$$\text{LTD / TD} = \frac{\text{Long-term debt}}{\text{Total debt}}$$

e. The Degree of Financial leverage (DFL)

The degree of financial leverage at a particular EBIT level is measured by the percentage change in earning per share relative to the percentage change in EBIT. The company needs a lot of funds to operate activities these funds are collected from different sources having different rates. On the way to profitability, the company can use equity capital. In the process of profit planning, it tries to increase the amount of profit, but different kinds of leverage considered. Degree of financial leverage is one kind of leverage. Degree of financial leverage (DFL) measures proportionate change in EPS as a result of given change in EBIT. The financial leverage measures the financial risk arises due to the interest. Higher the financial leverage higher the financial risk. The financial leverage exists when the company as debt capital in the composition of capital structure. The extra amount of investment by debt capital can be measured only with the help of financial leverage.

$$\text{Degree of financial leverage} = \frac{\text{\% Change in EPS}}{\text{\% Change in EBIT}}$$

f. Interest Coverage Ratio

It is also known as time interest earned ratio. This ration measures the debt servicing capacity of a firm in so far as fixed interest on long-term loan is earned. It is determined by dividing the operating profits or earning before interest and taxes (EBIT) by the fixed interest charges on loans. The interest coverage ratio shows many firms the interest charges are covered by funds that are ordinarily available to pay the interest.

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

This ratio is very useful in determining whether a borrower is going to be able to

service interest payments on a loan. In other words, the ratio is designed to relate the financial charges of a firm to its ability to service them. This ratio also known to determine whether a firm has the ability to meet its long-term obligations A high interest coverage ratio indicates the company's strong debt servicing capacity.

3.5.1.2. Profitability Ratio

The ultimate objective of al the bank is to earn profit. Strictly speaking, no bank can survive without profit. Profit is the indicator of efficient operation of bank. The bank acquires profit by providing different services to its customer or by making investment of different sectors. Sufficient profit is must to have good liquidity, grab investment opportunities, and expand banking transaction finance government in need of development fund, overcome the future contingencies and meet taxed internal obligation for a bank. Profitability Ratio gives final answers about how effectively the firm is being managed. In the study following profitability ratio are calculated.

a. Return on Total Assets

It is also known as Return to Investment or Ro 1 before tax basis. Return on total assets ratio measures the profitability of bank that explains a firm to earn satisfactory return on all financial resources invested in the bank assets. The ratio explains net income for each unit of assets. Higher ratio indicates efficiency in utilizing its overall resources and vice versa.

$$\text{Return on total assets} = \frac{\text{EBIT}}{\text{Total Assets}}$$

While on after tax basis, because of the tax shelter benefit of interest, we add the after tax interest expenses to net income for the numerator of the ratio.

$$\text{Return on total asset} = \frac{\text{Net Profit after tax}}{\text{Total asset}}$$

b. Return on Net worth (Ordinary Shareholders Equity)

The ratio of net profit taxes to net worth measure the state of return on the stock holder's investment is computed by dividing EAT with net worth. This ratio tells us the earning power on shareholders equity and is frequently used in comparing two or more firms in an industry. It also indicates that the funds supplied by owners. The higher ratio indicates that the funds using have effective in the company. It reflects the extent to which the objective of profit maximization has been achieved. Here net worth represents only equity capital.

$$\text{Return on Share Holder's Equity} = \frac{\text{Net Profit after Tax}}{\text{Share Holder's Equity}}$$

3.5.2 EBIT – EPS Analysis

EBIT-EPS analysis is one of the widely used financial tools that are used to examine the effect of financial leverage by analyzing the relationship between earning before interest and taxed (EBIT) and earning per share (EPS). Essentially the method views the comparison of alternative method of financing under assumptions as to EBIT in this study following format is used for EBIT-EPS analysis.

Particular	**Amount (Rs)**
Profit between interest, tax dep and Provision	***
Less – Interest	***
Profit before tax and provision	***
Less – depreciation	***
Profit before tax and provision	***
Less – provision for bonus	***

Net operating margin (profit before tax)	***
Less – tax	***
Earning available to common share holders	***
No of common share holders	***

Or,

$$EPS = \frac{\text{Net income}}{\text{Number of shares outstanding}}$$

$$DPS = \frac{\text{Total Dividend}}{\text{No. of ordinary share}}$$

3.5.3 Other Calculated Financial Tools

Overall capitalization rate, equity capitalization rate and total value calculation under different approach mentioned on chapter II.

Market value of firm = Market value of debt (B) + Market value of equity (S)

$$\text{Cost of overall Capitalization rate (Ko)} = \frac{\text{Net operating earning (EBIT)}}{\text{Total Market value of Firm (V)}}$$

$$\text{Cost of Equity (Ke)} = \frac{\text{Earning available to common stock holder (NI)}}{\text{Market value of stock (S)}}$$

3.6 Statistical Tools

Statistical tools are mathematical techniques used to facilitate the analysis and

interpretation of numerical data secured from groups of individuals or groups of observation from a single individual. Statistical method studies only a group of individuals not a single unit. Introductions of the statistical tools, which have been used in this study, are given below:

3.6.1 Correlation Coefficient (r)

Correlation coefficient measures the relationship between two variables, when they are so related that the change in value of one variable is accompanied by the change in the value of the other. It contributes to the understanding of economic behavior, aids in locating the critical important variables on which others depend, may reveal to the economist the connection by which disturbances spread stabilizing forces may become effective. Although there are three types of correlation i.e. simple, partial and multiple but here the focus is on simple correlation based on "Pearson's coefficient of correlation". The correlation co-efficient denoted by r and shows the direction of relationship between coefficients.

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

Where,

r = Pearson's correlation coefficient

N = No. of Observation

X, Y = Variables.

If one variable increases or decreases then r will fall between 0 and 1 i.e. the inverses relationship exists on the other sided, it one variable increases the other also increases and the value of r will be ranged between 0 and 1 i.e. the relationship exists.

Decision criteria:

- When the value of r = + 1, the variables are perfectively correlated
- When the value of r = -1, the variables have perfect negative correlation
- When the value of r = 0, there is no correlation between the variables.
- If -1 < r < 0 then two variables either increase or decrease but it is the opposite direction.

3.6.2 Probable Error (P.E)

The probable error of the coefficient of correlation helps in interpreting its value with the help of probable error it is possible to determine the reliability of the value of the coefficient is done for as it depends on the condition of random sampling. The P.E of the coefficient of correlation is obtained as follows.

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

Where,

r=correlation coefficient

N=no. of parts of observation

*Note:

- If the value of r is less than the P.E. there is no evidence of correlation i.e. the value of "r" is not significant.
- If the value of r is more than 6 times of P.E. the coefficient of correlation is practically certain i.e. the value of r is significant.

3.6.3 Trend Analysis

Trend Analysis is one quantitative method used to determine patterns in data collected overtime. It is also known as time series analysis. It is used to detect patterns of change in statistical information over regular intervals of time. The financial position of a firm is improving or deteriorating over the year's show by the use of trend analysis. Thus, trend is of great importance. In our study, method of 'least squares' is used for determining trend.

Least square method

The method of least square may be used either to fit a 'straight line trend' or a 'parabolic trend'. But in our study, it is used to fit straight line equation for estimating a straight line.

$$Y = a + bx$$

Where,

Y = Estimated value of the dependent variables

x = Independent variable (Time in trend analysis)

a = Y- intercept (the value of Y when x = 0)

b = slope of the trend line.

Following equations are used to estimate slope of the best fitting regression line, b and Y-intercept of the best fitting regression line, a.

$$b = \frac{\Sigma XY}{\Sigma X^2}$$

$$a = \frac{\Sigma Y}{n}$$

Where,

Y= Value of the dependent variable

X = value of the independent variable

n = Number of data points in the time series

a = Y- intercept

b = Slope

CHAPTER IV

DATA PRESENTATION AND ANALYSIS

4.1 INTRODUCTION

This is the most important chapter of the study. In this chapter the data collected will be analyzed and presented mathematically. All the above-mentioned financial and statistical tools will be used to present the data. To analyze the financial performance in respect to capital structure, various presentation and analysis have been presented in this chapter according to analytical research design mentioned in the third chapter using various financial and statistical tools.

4.2 PRESENTATIONS AND ANALYSIS OF DATA

It is already stated that Capital structure refers to the combination of preference share, equity share capital including reserve and surplus as well as long-term debt. Optimal capital structure refers to that combination of funds, which maximizes the EPS, value of the firm and overall cost of capital. The analyses in this chapter are divided into following sections, which is directly and indirectly related to the capital structure.

- Ratio Analysis
- Capital Structure Analysis
- Leverage Analysis
- Correlation Analysis
- Trend Analysis

4.2.1 Ratio Analysis

4.2.1.1. Debt Equity Ratio

Debt equity ratio is used to show the relationship between borrowed funds and owners' capital. It reflects the relative claims of creditors and shareholders against the assets of the firm. It is an important tool for the financial analysis to appraise the financial structure of a firm. The ratio reflects the relative contribution of owners and creditors capital of business in its financing. In other words, this ratio exhibits the relative proportions of capital contributed by owners and creditors. Debt equity ratio

can be calculated in the basis of shareholders' equity and long-term debt. Shareholders' equity includes reserve and accumulated profit, preference share and equity share capital. Where long-term debt includes total debt minus short-term debt or current liabilities, here debt equity ratio is also computed by simply dividing long-term debt of the firm by shareholders' equity. The high D/E ratio shows the large share of financing in the capital by the creditors then the owners or it's also reflects that the creditors claim is higher against the assets of firm and vice-versa. D/E ratios of concerned companies are shown in the following table that is calculated using

$$\text{Debt equity ratio} = \frac{\text{Long-term debt}}{\text{Shareholders' equity}}$$

Table No. 4.1

Comparative Debt- Equity Ratio

Fiscal year	**Debt Equity Ratio (Percentage)**	
	Nabil Bank Ltd	**Himalayan Bank Ltd.**
2004/2005	10.4	32.8
2005/2006	12.3	28.5
2006/2007	13.6	27.7
2007/2008	65.6	37.5
2008/2009	63.2	16.02
Average	**24.47**	**28.54**

Source: Appendix I, II (Annex 1.1, 1.3, 2.1, 2.2)

The table no.4.1 shows that D/E ratio of NBL is 10.2, 12.3, 13.6, 65.6, and 63.2 in

fiscal years 2005/06 to2008/09 respectively. The average D/E ratio of NBL is 24.47%. It shows that creditors have 24.47% claims on assets where the last three years ratio are lower than average ratio, it indicates that claim of owners is higher than the creditors. It also indicates that the company has lesser amount to be paid as interest on debt.

Calculated value of HBL shows D/E ratio have been fluctuating year by year. The ratio decreases to 32.8% to 28.5 and 27.7 respectively (2005-2007) the trend follows in 2007/08 the D/E ratio is 37.5 and it again decreases to 16.02. The average D/E ratio is 28.54%, which implies that the claim of creditors is 28.54% in compare to owner of the company. Between NBL and HBL, NBL has lower D/E ratio.

4.2.1.2 Debt to Total Capital Ratio

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

$$\text{Debt to total capital ratio} = \frac{\text{Long-term debt}}{\text{Total capital}}$$

Table No. 4.2

Comparative Long Term Debt to Capital Employed Ratio

Fiscal year	**Long Term Debt to Capital Employed Ratio (percentage)**	
	Nabil Bank Ltd	**Himalayan Bank Ltd.**
2004/2005	9	24.7
2005/2006	8.45	22
2006/2007	57.6	21.7
2007/2008	39.6	27.2
2008/2009	38.7	13.81
Average	**30.67**	**21.95**

Source: Appendix I, II (Annex 1.1, 1.3, 2.1, 2.3)

The Table no. 4.2 shows that NBL has fluctuation trend of long-term debt to capital employed ratio. In F/Y 2004/05 long term debt to capital employed is 9% and owner of companies contributed remaining 91%. In the following year 2006/07 the ratio increases to 57.6% and in F/Y 07/08, 08/09 ratio are 39.6, and 38.7 respectively. The average ratio shows a ratio of 30.67%. The trend of HBL decreases in F/Y 2005/06 and 2006/07, then after it slowly drastically increases to 27.2 in year 2007/2008 but again decrease to 13.81 in F/Y 2008/09, meaning 13.81% of capital is employed by long-term debt and remaining is contributed by shareholder's equity. The average ratio is 21.95%. Between NBL and HBL, NBL shows higher ratio, which means NBL, has higher amount of capital financed by long-term debt.

4.2.1.3 Total Debt to Total Assets Ratio

Debt to total assets ratio express the relationship between creditors fund and total assets. It is also the leverage ratio, which is generally called the debt ratio. This type

of capital structure ration is a variant of debt equity ratio. Calculating debt to total assets is one calculation approach of the debt to capital ratio. Debt includes all loans and Total assets include all types of assets of the firm. It measures the percentage of total funds provided by creditors. This ratio can be calculated:

$$\text{TD/TA Ratio} = \frac{\text{Total Debt}}{\text{Total Assets}}$$

Table No. 4.3

Debt to Total Asset Ratio

Fiscal year	**Debt To Total Asset Ratio (percentage)**	
	Nabil Bank Ltd	**Himalayan Bank Ltd.**
2004/2005	1.2	2.75
2005/2006	1.19	1.96
2006/2007	3.54	2.05
2007/2008	4.95	2.89
2008/2009	5.57	1.56
Average	**3.29**	**2.25**

Source: Appendix I, II (Annex 1.1, 1.3, 2.4, 2.5)

The average ratio of NBL is 3.29. Debt to total asset ratio is quite steady in last three year (2006-2009). In F/Y 2004/05 the ratio was 1.2%, which decreased to 1.19% in 2005/06, but from 2006/07 it increased drastically to 3.54%, 4.95% and 5.57% respectively in following F/Y. As for HBL the debt to total asset ratio have remained quite consistent. From F/Y 2004/05 to 2008/2009 the ratios have been somewhat very close to the average value. The debt to asset ratio of NBL and HBL is insignificant

because long term debt is negligible compared to total asset. However, average Debt asset ratio of HBL is lower than NBL.

4.2.1.4 Long Term Debt to Total Debt Ratio

The relationship between long term debt and total debt has a decisive impact on the financial structure of the companies. This relationship indicates what percentage of total debt is covered by long-term debt of the firm. Normally firms use short term and long-term debt. Current liabilities and provisions are also needed during the operation of the firm. Simply dividing long-term debt by the total debt can derive the relationship the long-term debt and total debt of the firm.

The total debt includes all types of borrowed firm, current liabilities and provisions. If the firm uses large amount of short term loans and current liabilities and provisions in the larger amount, the percentage of the long term debt on the total debt will be low and vice versa. The higher ratio of long term debt to total debt indicates the higher claim of long term debt holder upon the total debt and the lower ratio indicates the higher portion of short term loans and current liabilities in the total debt of the firm. The amount of short-term loans and current liabilities used depends upon the liquidity of that firm. The relationship of long term debt and total debt is presented in the following table with the percentage change in that ratio to show the movement of trend individually. In addition the average ratios are also calculated to compare with each other.

$$\text{LTD / TD} = \frac{\text{Long-term debt}}{\text{Total debt}}$$

Table No. 4.4

Comparative Long Term Debt to Total Debt

Fiscal year	**Long Term Debt to Total Debt (percentage)**	
	Nabil Bank Ltd	**Himalayan Bank Ltd.**
2004/2005	57.2	67.07

2005/2006	65.17	87.27
2006/2007	91.35	86.71
2007/2008	87.02	90.18
2008/2009	81.05	81.49
Average	**76.35**	**82.54**

Source: Appendix I, II (Annex 1.1, 1.3, 2.1, 2.4)

The calculation in table no. 4.4 shows that the ratio of LTD/TD of NBL is 57.2% in F/Y 2004/05. This means contribution of long-term debt is 57.2% and remaining is contributed by current liabilities. The ratio is 65.17% in year 2005/06/03, which increase to 91.35% in F/Y 2006/07. Then after it decrease to 87.02% and 81.05% respectively. Similarly, HBL has constant ratio. In the fiscal year 2004/05 the ratio is 67.07% that indicated contribution of long-term debt in total debt and remaining portion is contributed by current liabilities. In F/Y 2005/06 ratio is 87.27%, which decreased to 86.71% and again increased 2006/07. The average ratio is 82.54%. However HBL is high levered in compare to NBL.

4.2.1.6 Interest Coverage Ratio

The interest coverage ratio is useful tool to measure long-term debt serving capacity of the firm. It is also called interest on ratio. 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 the 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 or 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. So it is necessary to analyze EBIT and interest. This ratio is useful to measure long-term debt serving capacity of the firm. The high ratio shows that the

firm may imply unused debt capacity and the firm has greater capacity to handle fixed liabilities of creditors whereas, low ratio is a signal that the firm is using excessive debt and does not have the ability to offer assured payment of interest to the creditor.

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

Table No. 4.5

Interest Coverage ratio

Fiscal year	**Interest Coverage ratio (times)**	
	Nabil Bank Ltd	**Himalayan Bank Ltd.**
2004/2005	4.12	1.93
2005/2006	3.76	2.03
2006/2007	2.9	1.93
2007/2008	2.5	2.15
2008/2009	2.44	2.14
Average	**3.14**	**1.26**

Source: Appendix I, II (Annex 1.2, 1.4, 2.6, 2.9)

In the table no. 4.5 the average ratio of NBL is 3.14, which imply no. of times of interest covered by its EBIT. The interest coverage ratio of NBL shows decreasing trend. It was 4.12 in F/Y 2004/05, which went on decreasing by 3.76, 2.9, 2.5, 2.4 Then it increases to 4.12 times in 04/05 and 3.52 in F/Y 2005/06, 2006/07, 2007/08 and 2008/09 respectively. In case of HBL the ICR is 1.93, 2.03, 1.93, 2.15 and 2.14 times in the year taken five financial years. Here the ratio shows increasing trend from 2006/07 to 2008/09. The average calculated ratio is 1.26 times. This implies

company's available profit can meet the debt amount. The ratio between two banks shows that there is enough profit to meet the claim of the creditors. Between two firms ICR of NBL is greater.

4.2.1.7 Return on Total Assets

Return on total Assets ratio measures the profitability of bank that explains a firm to earn satisfactory return on all financial resources invested in the bank assets. The ratio explains net income for each unit of assets. Higher ratio indicates efficiency in utilizing its overall resources and vice versa. From the point of view of judging operational efficiency, rate of return on total Assets is more useful measures.

$$\text{Return on total assets} = \frac{\text{EBIT}}{\text{Total Assets}}$$

Table No. 4.6

Return on Total Assets

Fiscal year	**Return on Total Assets (times)**	
	Nabil Bank Ltd	**Himalayan Bank Ltd.**
2004/2005	3.06	1.12
2005/2006	3.23	1.55
2006/2007	2.72	1.46
2007/2008	2.32	2.27
2008/2009	2.55	1.91
Average	**2.77**	**1.16**

Source: Appendix I, II (Annex 2.5, 2.9)

From the table no. 4.6, ROA of NBL increased from 3.06 to 3.23 in F/Y 2004/05 to 2005/2006. It gradually decreased to 2.72 and 2.32 in coming years. In F/Y 2008/2009, the ROA of NBL increased slightly to 2.55. Similarly, ROA trend of HBL increased in first two year from 1.12 to 1.55 and again fell in next F/Y 2006/07 to 1.46, the fluctuation trend continued in 2007/08 and 2008/09 as the ROA decreased from 2.27 to 1.19. The average return of NBL is higher compared to HBL.

4.2.1.8 Return on Net Worth

Shareholder's fund represents that part of long-term source of funds, which is calculated by issuing equity shares and preference share. Shareholders are actually the owners of the company. To measure the return earned by the shareholders, return on shareholders' equity is used or this ratio is calculated to find out the profitability on the owners' capital or investment. If the companies' earning is good, shareholders' earning is greater than outside investors because they are ultimate holders and they are bearing high risk as well. But outside investors get return before the owner that is fixed. Shareholders get the return after paying the fixed interest charge to the creditors and tax to the government. Earning after tax (EAT) is the profit of the shareholders. Therefore this ratio is calculated on the basis of EAT. The high return on shareholders' equity (ROE) represents the high profitability of the firm and vice versa. So ROE is desirable from the point of view of the owner of the company.

$$\text{Return on Share Holder's Equity} = \frac{\text{Net Profit after Tax}}{\text{Share Holder's Equity}}$$

Table No. 4.7

Return on Shareholder's Equity

Fiscal year	**Return on Shareholder's Equity (percentage)**	
	Nabil Bank Ltd	**Himalayan Bank Ltd.**
2004/2005	34	19.99

2005/2006	33.88	25.90
2006/2007	10.39	22.91
2007/2008	30.62	25.3
2008/2009	32.93	24.13
Average	**28.36**	**23.64**

Source: Appendix I, II (Annex 2.2, 2.7)

The table no. 4.7 exhibits returns on shareholder's equity of sample companies. In the context of NBL, it has a fluctuating trend. In the fiscal year 2001/02, the ratio is 34% and 33.88% in 2004/05 and 2005/2006, which drastically fell to 10.39 in 2006/2007, which imply that one hundred investment by shareholder's equity earned 103. In F/Y 2007/08 it increased to 30.62% then again raise to 32.93% in next year. The average ratio is 28.36 %. In case of HBL the ratio is more similar. After that ROE increased up to 25% in F/Y 05/06 from 19.99% of previous year, the ratio of Return on Shareholder's Equity has been similar or higher than the average value i.e.; 22.91%, 25.3%, and 24.13% in F/Y 2006/07, 2007/08 and 2008/09. In comparison between two banks the Return on Shareholder's Equity of NBL is seen higher than HBL.

4.2.1.9 Earning per Share (EPS) analysis

The profitability of bank from the point of view of the ordinary shareholders is earning per share. It is generally considered to be the single most important variable in determining a share's price. It is also a major component used to calculate the price-to-earnings valuation ratio. The ratio explains net income for each unit of share. EPS gives the strength of the share in the market. It shows how much theoretically belongs to the ordinary shareholders. An important aspect of EPS that's often ignored is the capital that is required to generate the earnings (net income) in the calculation. Two companies could generate the same EPS number, but one could do so with less equity (investment) - that company would be more efficient at using its capital to generate income and, all other things being equal, would be a "better" company.

$$EPS = \frac{\text{Net income}}{\text{Number of shares outstanding}}$$

Table No. 4.8

Comparative Earnings Per Share

Fiscal year	**Earnings Per Share (In Rupees)**	
	Nabil Bank Ltd	**Himalayan Bank Ltd.**
2004/2005	105.49	47.91
2005/2006	129.21	59.24
2006/2007	137.08	60.66
2007/2008	108.31	62.74
2008/2009	106.76	61.90
Average	**117.37**	**58.49**

Source: Appendix I, II (Annex 1.5, 1.6, 2.8)

The calculation shows that the Earning per share of the NBL has shown a promising rate. The EPS in 2004/05 was 105.49, which increased to 129.21 in following year, than in 2006/07 the value again increased to 137.08. The increasing trend slightly lost its road in 2007/08, it decreased to 108.31 and again decreased to 106.76 in 2008/2009. As for HBL the EPS shows upward trend but in a very slow motion. EPS was 47.91 in 2004/05, which increased to 59.24 in 2005/06 and 60.66 in 2006/07. After 2007/08 the EPS in 2008/2009 slightly decreased to 61.9.

Between both banks EPS of NBL has the higher EPS, which shows NBL is more profitable.

4.2.1.10 Dividend per Share (DPS) analysis

Dividend per share is evaluated to know the share of dividend that the shareholders received in relation to the paid up value of the share. For a joint stock company, a dividend is allocated as a fixed amount per share. Therefore, a shareholder receives a dividend in proportion to their shareholding. Dividends are a form of profit distribution to the shareholder. Having a growing dividend per share can be a sign that the company's management believes that the growth can be sustained.

$$DPS = \frac{\text{Total Dividend}}{\text{No. of ordinary share}}$$

Table No. 4.9

Comparative Dividend per Share

Fiscal year	**Dividend Per Share (In Rupees)**	
	Nabil Bank Ltd	**Himalayan Bank Ltd.**
2004/2005	73.8	5.55
2005/2006	109.8	17.77
2006/2007	137.08	9.09
2007/2008	64.9	15.68
2008/2009	37.36	7.42
Average	71.6	11.103

Source: Appendix I, II (Annex 1.5, 1.6)

The dividend per share of NBL are Rs 73.8, 109.8, 137.08, 64.9 AND 37.36, in the f/y 2004/05, 2005/06, 2006/07, 2007/08, 2008,09 respectively. The average DPS is Rs 60. The highest DPS paid in the last year 06/07. The recent year DPS of F/Y 2008/09

is the lowest in five-year span. The DPS of HBL is too low compared to NBL. The average DPS is Rs 11.103. HBL has paid a highest dividend of Rs 17.7 in the year 05/06 whereas it has paid the lowest dividend of 5.55 in the year 2004/05. The table shows that NBL has paid the higher average dividend of Rs 71.6, which indicates that the more investors are likely to be attracted in investing at NBL in compared to HBL.

4.2.2 Capital Structure Analysis

4.2.2.1 Analysis of Value of Firm

Capital structure means the mix proportion of debt capital and equity capital in the firm. The main focus of this study is to analyze the capital structure management of selected commercial bank. The bank should maintain optimum capital structure in its' firm because optimum capital minimizes the overall cost and maximizes the earning per share and the value of the firm. The value of the firm is the sum of long-term debt and net worth. Net worth can be obtained if the company has market price of the share and it is the product of the market price of shares and no. of shares. If a firm has optimum capital structures it also has maximum value of the firm. Net worth is calculated on the basis of market price.

Market value of firm = Market value of debt (B) + Market value of equity (S)

Table No. 4.10

Value of Firm Nabil Bank Ltd.

Fiscal year	**Nabil Bank Ltd. (in Million Rs)**		
	Market Value of Equity	**Value of Long term Debt**	**Value of Firm**
2004/2005	7399.39	170.6	7569.99
2005/2006	11013.05	173.20	11186.25
2006/2007	24828.54	882.57	25711.11
2007/2008	36356.14	1600	37956.14

2008/2009	47311.94	1918.30	49230.24
Average	**25381.81**	**948.93**	**29330.75**

Source: Appendix II (Annex 2.10, 2.12)

Individual value of the firm trend of NBL shows increasing trend. In the F/Y 2004/2005 the value of the firm is 7569.99, which increased to 11186.25 in 2005/06. The trend continued as value of NBL kept on increasing by 25711.11, 37956.14, and 49230.24 respectively in F/Y 2006/07, 2007/08 and 2008/09.

Table No. 4.11

Value of Firm Himalayan Bank Ltd.

Fiscal year	**Himalayan Bank Ltd. (in Millions Rs)**		
	Market Value of Equity	**Value of Long term Debt**	**Value of Firm**
2004/2005	5980	506.05	6486.05
2005/2006	8494.2	504.62	8998.82
2006/2007	14108.09	595.96	14704.05
2007/2008	20067.55	943.17	21010.72
2008/2009	21352.5	500	21852.5
Average	**14000.5**	**609.96**	**14610.46**

Source: Appendix II (Annex 2.11, 2.13)

The value of HBL is also increasing but in a smaller rate than that of NBL. The value of firm was 6486.05 in F/Y 2004/05. It increased to 8998.82 in 2005/06, 14704.05 in F/Y 2006/07, 21010.72 in F/Y 2007/08 and 21825.5 in F/Y 2008/09. In comparison the value of NBL is greater than HBL which means that NBL is maintaining optimum capital structure in its' firm because optimum capital minimizes the overall cost and

maximizes the earning per share and the value of the firm.

4.2.2.2. Net Income (NI) Approach

Net Income (NI) approach is known as dependent hypothesis of capital structure. The essence of this approach is that the firm can reduce its cost of capital by using debt and total valuation of the firm through the reduction in the cost of capital leading to an increase in the cost of capital thus leading to an increase in the degree of leverage. This theory assumes that the cost of debt and cost of equity remain constant as change in the firm's capital structure. According to this theory, optimum capital structure is that where the total value of the company is highest and the overall capitalization rate is lowest.

$$\text{Cost of overall Capitalization rate (Ko)} = \frac{\text{Net operating earning (EBIT)}}{\text{Total Market value of Firm (V)}}$$

Table No. 4.12

Comparative Position of Overall Capitalization Rate

Fiscal year	**Cost of overall Capitalization (Ko)**	
	Nabil bank Ltd	**Himalayan Bank Ltd.**
2004/2005	17.76	38.9
2005/2006	12.02	14.6
2006/2007	6.41	10.07
2007/2008	5.15	8.43
2008/2009	5.6	9.15
Average	**9.38**	**16.43**

Source: Appendix II (Annex 2.10, 2.11)

The calculation of Ko shows that the overall capitalization of NBL has been decreasing, 17.67%, 12.02%, 6.41%, 5.15 and 5.6 in the F/y 2004/2005, 2005/2006, 2006/07, 2007/08 and 2008/09 respectively. The average cost is 9.38%. In case of HBL the Ko is 38.9%, 14.6%, 10.0%7, 8.43%, and 9.15% in the F/y 2004/2005, 2005/2006, 2006/07, 2007/08 and 2008/09 respectively. The cost of HBL is higher than NBL even when the value of HBL is almost half than NBL.

4.2.2.3 Net Operating Income (NOI) Approach

It is an independent hypothesis of capital structure decision of the firm and which is irrelevant to the value of firm and overall cost of capital. Change in leverage will not lead to any change in the total value of the firm and market price of share, as the overall cost of capital is independent of the degree of leverage. The increase in leverage leads to an increase in financial risk of the ordinary shareholder. To minimize the financial risk, the shareholders want a higher return on their investment. Equity capitalization rate 'Ke' is calculated here by simply dividing by EBT by the market value of common equity, which is presented in the following table.

$$\text{Cost of Equity (Ke)} = \frac{\text{Earning available to common stock holder (NI)}}{\text{Market value of stock (S)}}$$

Table No. 4.13

Comparative Position of Equity Capitalization Rate

Fiscal year	**Cost of Equity (Ke)**	
	Nabil bank Ltd	**Himalayan Bank Ltd.**
2004/2005	7.44	5.6
2005/2006	3.03	6.4
2006/2007	2.71	5.45
2007/2008	2.05	3.62

2008/2009	2.16	3.13
Average	**3.48**	**4.84**

Source: Appendix II (Annex 2.12, 2.13)

The table no. 4.13 shows the calculation of Equity capitalization rate. The cost of equity of NBL is 7.44%, 3.03%, 2.71%, 2.05% and 2.16% in the F/y 2004/2005, 2005/2006, 2006/07, and 2007/08 and 2008/09 respectively. Similarly the cost of Equity of HBL is 5.6%, 6.4%, 5.45%, 3.62% and 3.13% in the F/y 2004/2005, 2005/2006, 2006/07, and 2007/08 and 2008/09 respectively. The average cost of equity of NBL is 3.84%, which is lesser than that of HBL.

4.2.3 Leverage Analysis

Leverage and Capital structure are closely related concept linked to cost of capital and therefore capital budgeting decision. Leverage results from the use of fixed cost assets. Changes in leverage result in changes in level of return and associated risk. Generally increase in leverage result in increase in return and risk, whereas decrease in leverage result in decrease in return and risk. The amount of firm's capital structure, the mix of long term debt and equity maintained by the firm can significantly affect its value of affecting return and risk. Because of its' effect on value, the financial manager must understand how to measure and evaluate leverage when attempting to create the best capital structure. There are three types of leverages: Operating leverage, financial leverage and combined leverage. Operating leverage is the function of fixed cost, contribution margin and sales volume. Financial leverage is the relationship between EBIT and EBT and combined leverage is the combined effect of operating leverage and financial leverage. The operating leverage indicates the impact of changes sales on operating income and financial leverage exists when the capital structure of the firm comprises debt capital structure. Financial leverage is related to the capital structure of the firm. So, financial leverage is the relevant issue of this study, which is explained in this section.

4.2.3.1 Analysis of Financial Leverage

When the company employs debt or other fund carrying fixed charges i.e. interest in

the capital structure, financial leverage exits. If the financial charge is high the company can have advantage of tax shield but it will affect the owner's return i.e. net profit as well. Financial leverage explains the relationship between earning before interest and taxes and net profit of the company.

There are two methods of calculating DFL- either dividing percentage change in EPS by percentage change into EBIT or dividing percentage change into EBT by EBIT can calculate degree of financial leverage. In this analysis of financial leverage second method is chosen. High the financial leverage, high will be the financial risk and also high will be the shareholders' return. The leverage will be high in the case of higher proportion of borrowed capital in the total capital structure. If there is no borrowed capital in the total capital structure, the leverage will be 'one'.

Financial leverage measures the percentage change in earning before tax, which results from a change of 1% in EBIT. It enables a firm to understand how EPS would change given a certain change in EBIT.

$$\text{Degree of financial leverage} = \frac{\%\ \text{Change in EPS}}{\%\ \text{Change in EBIT}}$$

Table No. 4.14

The Degree of Financial Leverage (DFL)

Fiscal year	**Degree of Financial Leverage (times)**	
	Nabil Bank Ltd	**Himalayan Bank Ltd.**
2004/2005	1.05	4.83
2005/2006	1.36	1.96
2006/2007	1.50	2.07

2007/2008	1.63	1.86
2008/2009	1.7	1.87
Average	**1.45**	**2.52**

Source: Appendix II (Annex 2.8, 2.9)

The degree of financial leverage of NBL shows increasing trend. In F/Y 2004/05 the DFL was 1.05, which increased to 1.36 in 2005/06, and again the trend continued as DFL increased to 1.50, 1.63 and 1.7 in F/Y 2006/07, 2007/08 and 2008/09. The average DFL is 1.45, which means that if EBIT increases by 1% the EBT or EPS increases by 1.45. The calculation of HBL shows more of a fluctuating DFL. In 2004/05 the DFL was highest which is 4.83. It decreased to 1.96 in 2005/06. The DFL increased to 2.07 in 2006/07 and again decreased to 1.86 in 2007/08. The DFL of F/Y 2008/09 slightly increased to 1.87. The average DFL shows that DFL of HBL is stronger than that of NBL.

4.2.4 Correlation Analysis

Correlation analysis enables us to have an idea about the degree and direction of the relationship between two or more variables. The correlation is a statistical tool which studies the relationship between two or more variables and correlation analysis involves various methods and techniques used for studying and measuring the extent of the relationship between two or more variables. It is denoted by 'r'. However it fails to reflect upon the cause and effect relationship between the variables. Although there are three types of correlation i.e. simple, partial and multiple but here the focus is on simple correlation based on 'Pearson's Coefficient of Correlation'. In the following section correlation between different variables are calculated and presented of the sample companies.

4.2.4.1 Correlation Coefficient between Debt Equity Ratio and Overall Capitalization Rate

D/E ratio exhibits the relative proportion of capital contributed by owners and creditors. The firm can increase its value or lower the overall cost of capital by

increasing the propositions of debt in the capital structure. It gives attention on overall capitalization rate. This correlation indicates whether there is positive or negative correlation between D/E ratio and K0 and their respective probable error, P.E, interprets the value of correlation coefficient. It helps to determine applicability for the measurement of reliability of the compared value of 'r'.

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

Table No. 4.15

Correlation Coefficient between Debt Equity Ratio and Overall Capitalization Rate with Probable error

Nabil Bank Ltd			**Himalayan Bank Ltd.**		
r	**6 P.E**	**Significant or not**	**r**	**6 P.E**	**Significant or not**
-0.68	5.1	Not Significant	0.27	2.94	Not Significant

Source: Appendix II (Annex 2.14, 2.15)

Karl Pearson's correlation coefficient between D/E ratio and Ko of NBL is insignificant as the correlation coefficient value is negative and the probable error is 5.1 which is much more higher than correlation coefficient. Similarly, the correlation coefficient of HBL is 0.27, which is positive. But the probable error is 2.94, which is greater than 'r'. According to this it can be said that the relationship between Debt Equity ratio and Ko of HBL is also not significant.

4.2.4.2 Correlation Coefficient between EBIT and Interest charges

The relationship between EBIT and Interest payment is evaluated in order to measure debt-serving capacity of the bank. EBIT is an operating profit of a company where as interest is fixed charges of the companies, which is charged in long term and short term loans. Here, correlation coefficient of EBIT and interest has been presented of concerned companies to analyze whether there is positive or negative correlation

between them.

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

Table No. 4.16

Correlation Coefficient between EBIT and Interest charges with Probable error

Nabil Bank Ltd			Himalayan Bank Ltd.		
r	**6 P.E**	**Significant or not**	**r**	**6 P.E**	**Significant or not**
0.99	0.0054	Significant	0.968	0.057	Significant

Source: Appendix II (Annex 2.16, 2.17)

The NBL's correlation coefficient of NBL is found to be 0.99 i.e., there is positive correlation between EBIT and Interest. 6 P.E. of respected correlation is 0.0054 which is leaser than 'r, it means that the relationship between two variables is significant. Similarly, in case of HBL, correlation coefficient between EBIT and Interest is 0.968. It is positive. The 6 P.E of respected correlation is 0.057, which is less than 'r'. It implies that the relationship between the variable is significant.

4.2.5 Trend Analysis

As trend analysis is used to determine patterns in data collected overtime. In this topic various data related to capital structure have been analyzed by the method of least square of fit straight-line trend of NBL and HBL during five years operating period. The actual trend lines of respective variables are also plotted in graph. In our study, the variables like ROE, EBIT and EPS are analyzed to detect patterns of change in statistical information over regular interval of time. This analysis includes both crude and calculated data of NBL and HBL. For estimating straight-line trends of these variables, following equation is used;

4.2.5.1 Least square method

The method of least square may be used either to fit a 'straight line trend' or a

'parabolic trend'. But in our study, it is used to fit straight line equation for estimating a straight line.

$$Y = a + bx$$

Where,

Y = Estimated value of the dependent variables

x = Independent variable (Time in trend analysis)

a = Y- intercept (the value of Y when x = 0)

b = slope of the trend line.

By solving above equation for these different variables, the value of Y – intercept, slope of the trend line and estimated value of dependent variables are obtained which are summarized in following table 4.17 & 4.18 for NBL and HBL respectively.
The details calculations are shown in Appendix II.

Table No: 4.17

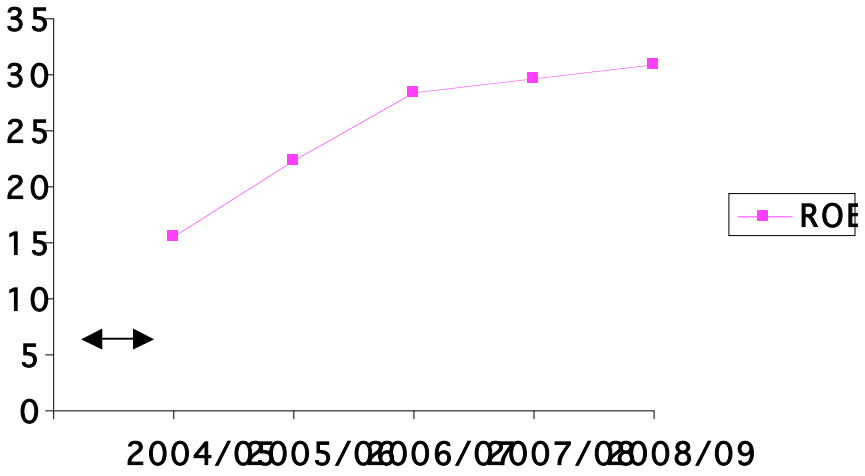
Position of ROE, EBIT, EPS of NBL

Variables	**a**	**b**	**2004/05**	**2005/06**	**2006/07**	**2007/08**	**2008/09**
ROE	28.36	0.6305	15.516	22.379	28.36	29.621	30.882
EBIT	1761	298	569	1171	1761	2312	2953
EPS	95.7	-0.925	98	100	96	93	92

Source: Appendix II (Annex 2.18, 2.19, 2.20)

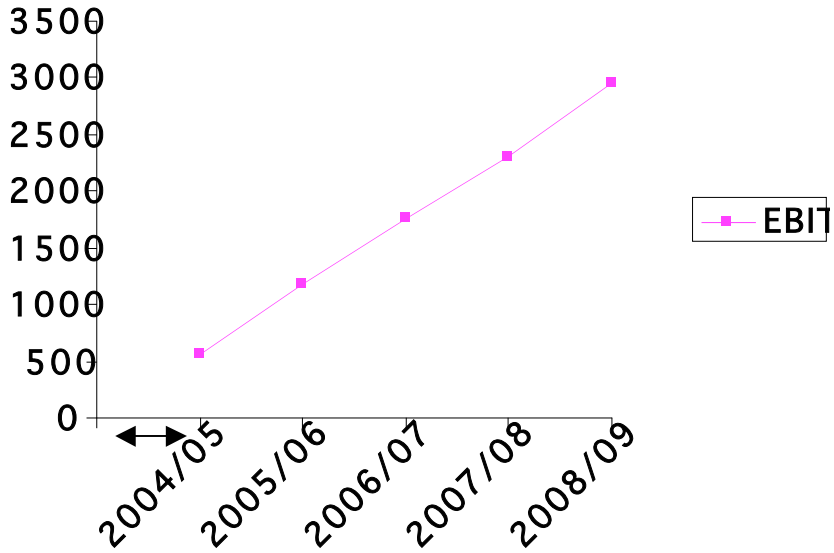
The estimated value of dependent variable (Y) of NBL of ROE are in increasing trend, where the value of 'a' is 28.36 and annual rate of growth (b) is 0.6305.
Variable Y of NBL of EBIT is also in growing trend. The value of a=1761 and the growth rate (b)=298. The trend line of EPS of NBL is sloping downward as the growth rate (b) is in negative (-0.925). Here Y –intercept (a) is 96.

Fig No.4.1 Position of ROE of NBL



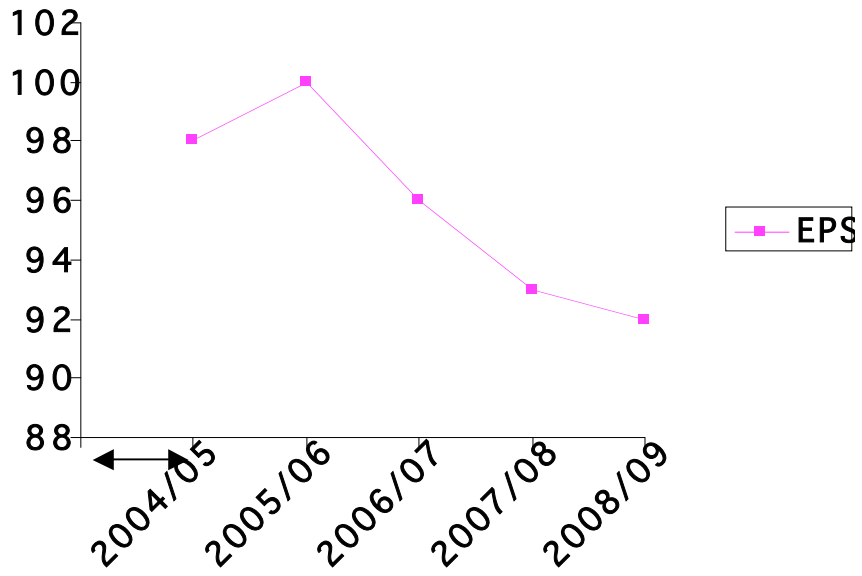
The trend line obtained from table no.4.17, the estimated value of dependent variable (Y) of NBL of ROE shows the trend has been increasing from 2004/05 to 2008/09.

Fig No.4.2 Position of EBIT of NBL



The trend line obtained from table no.4.17, the estimated value of dependent variable (Y) of NBL of EBIT shows the trend has been increasing from 2004/05 to 2008/09.

Fig No.4.3 Position of EPS of NBL



The trend line obtained from table no.4.17, the estimated value of dependent variable (Y) of NBL of EPS shows the trend has been decreasing from 2005/06 to 2008/09.

Table No: 4.18

Position of ROE, EBIT, EPS of HBL

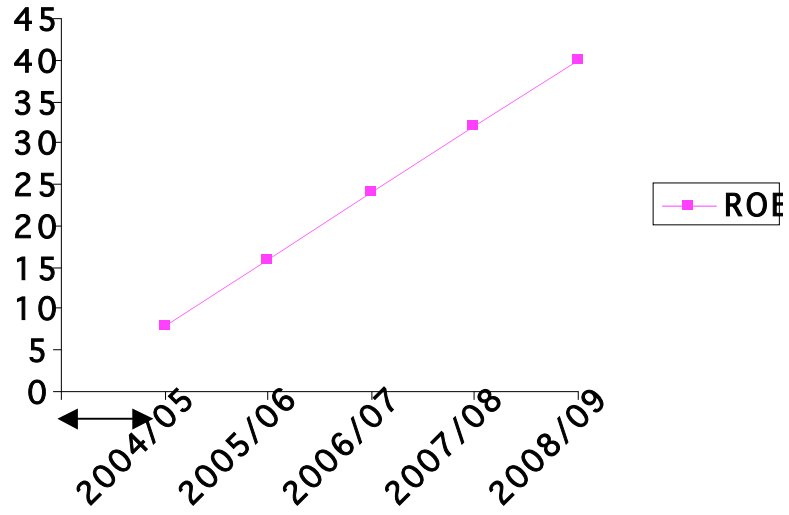
Variables	**a**	**b**	**2004/2005**	**2005/2006**	**2006/2007**	**2007/2008**	**2008/2009**
ROE	24	4	8	16	24	32	40
EBIT	1821	30	1761	1821	1821	2001	1941
EPS	59	1.3	62	64	59	56	54

Source: Appendix II (Annex 2.21, 2.22, 2.23)

The estimated value of dependent variable (Y) of HBL of ROE are in increasing trend, where the value of 'a' is 24 and annual rate of growth (b) is 1.26. Variable Y of HBL of EBIT is also in flactuating trend. The value of a=1812 and the growth rate (b)=30. The trend line of EPS of HBL is sloping downward as the growth rate (b) is in

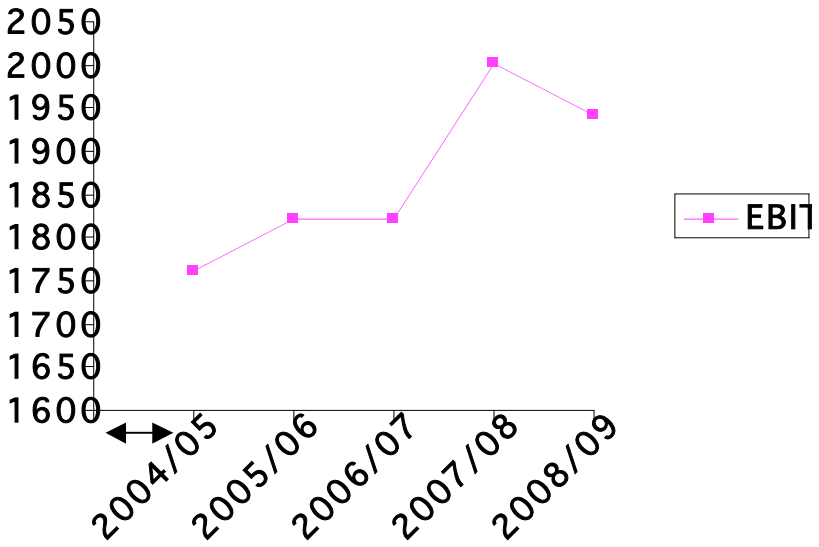
negative (-1.37). Here Y –intercept (a) is 59.

Fig No.4.4 Position of ROE of HBL



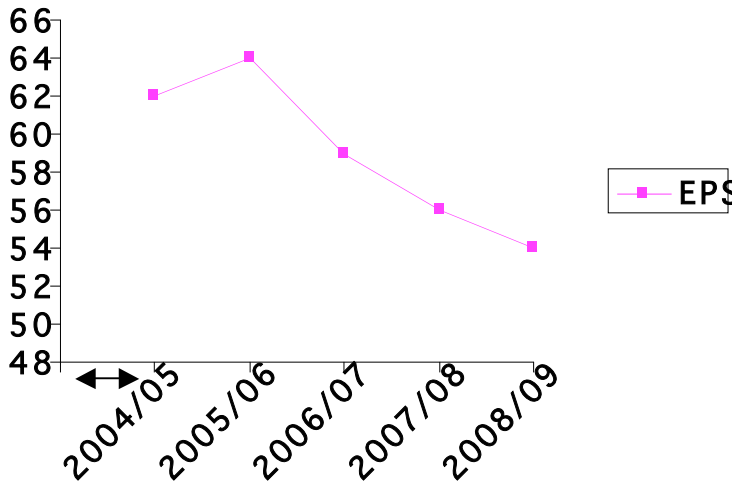
The trend line obtained from table no.4.18, the estimated value of dependent variable (Y) of NBL of ROE shows the trend has been increasing from 2004/05 to 2008/09.

Fig No.4.5 Position of EBIT of HBL



The trend line obtained from table no.4.18, the estimated value of dependent variable (Y) of NBL of EBIT shows the trend has been fluctuating. The trend is increasing from 2004/05 to 2007/08 and showing decreasing trend in 2008/09.

Fig No.4.6 Position of EPS of HBL.



The trend line obtained from table no.4.18, the estimated value of dependent variable (Y) of NBL of EPS shows the trend has been decreasing from 2005/06 to 2008/09.

4.2.5.2 Forecasting using Trend Analysis (Least square method):

Least square method determines the values for 'a' and 'b' so that the resulting line is the best-fit line through a set of the historical data. The value of a and b are used to forecast the future values using: Y = a + bx.

a. Estimated Value for future of ROE

Table No. 4.19

Estimated Value for future of ROE

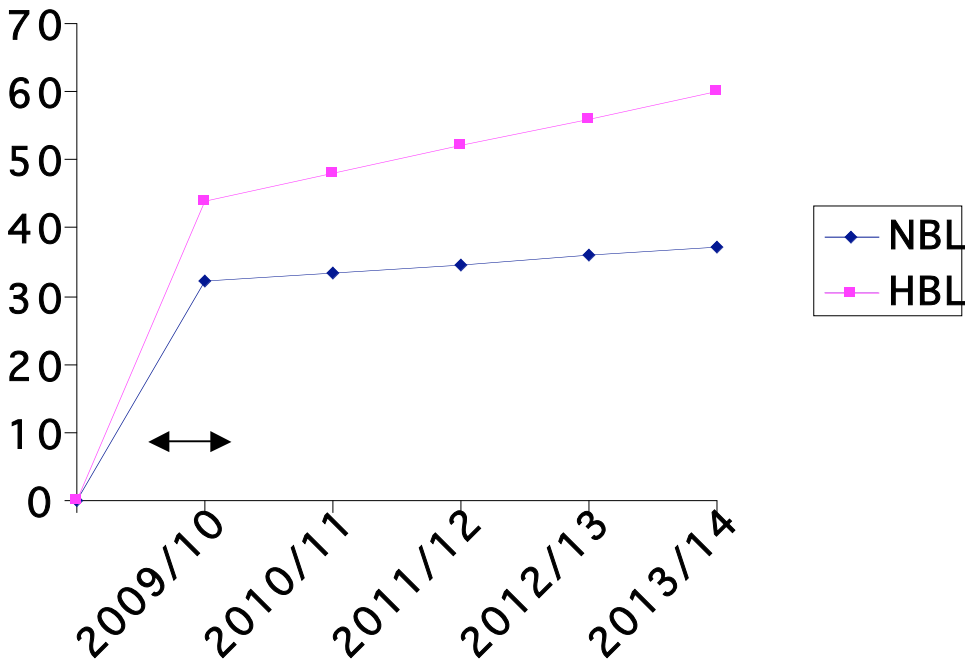
Fiscal year	**Estimated Value for future of ROE (Percentage)**	
	Nabil Bank Ltd	**Himalayan Bank Ltd.**
2009/10	32.14	44
2010/11	33.40	48
2011/2012	34.66	52

2012/2013	35.92	56
2013/2014	37.18	60
Average	**34.66**	**52**

Source: Appendix II (Annex 2.18, 2.21)

The future estimated value of ROE of NBL is in growing trend. The values are Rs 32.14, 33.4, 34.66, 35.92, and 37.18 in the coming five years i.e. 2009/10, 2010/11, 2011/12, 2012/13, and 2013/14. But the change in ROE is future is very slow, it is changing approximately by 1% per year. Similarly the future ROE of HBL is also increasing in the trend 44, 48, 52, 56, and 60 in . 2009/10, 2010/11, 2011/12, 2012/13, and 2013/14. The change is ROE of HBL is good as the percentage change is approximately 3.5%. This shows that HBL will be doing very good with the shareholders in future.

Fig No.4.7 Estimated Value for future of ROE



The trend line in figure no. 4.7 shows that the ROE is increasing in case of both banks. The trend line is going upwards. The shareholders will take the increasing trend in ROE positively. The above trend line is telling investors that the profit will be

increasing in coming years. However, the ROE of HBL is greater than NBL.

b. Estimated Value for future of EBIT:

Table No. 4.20

Estimated Value for future of EBIT (Rs in Million)

	Estimated Value for future of EBIT (Rs in Million)	
Fiscal year	**Nabil Bank Ltd**	**Himalayan Bank Ltd.**
2009/10	3251	1971
2010/11	3549	2001
2011/2012	3847	2031
2012/2013	4145	2061
2013/2014	4443	2091
Average	**3847**	**2031**

Source: Appendix II (Annex 2.19, 2.20)

In case of EBIT, Future Estimated value of NBL is in increasing trend. The respective EBIT are Rs 3251, 3549, 3847, 4145, and 4443 for 2009/10, 2010/11, 2011/12, 2012/13, and 2013/14 respectively.

In case of HBL, the EBIT increasing rate is low but the trend is following upwards. The calculation shows future EBIT as 1971, 2001, 2031, 2061 and 2091 in F/Y 2009/10, 2010/11, 2011/12, 2012/13, and 2013/14 respectively.

Fig No.4.8. Estimated Value for future of EBIT

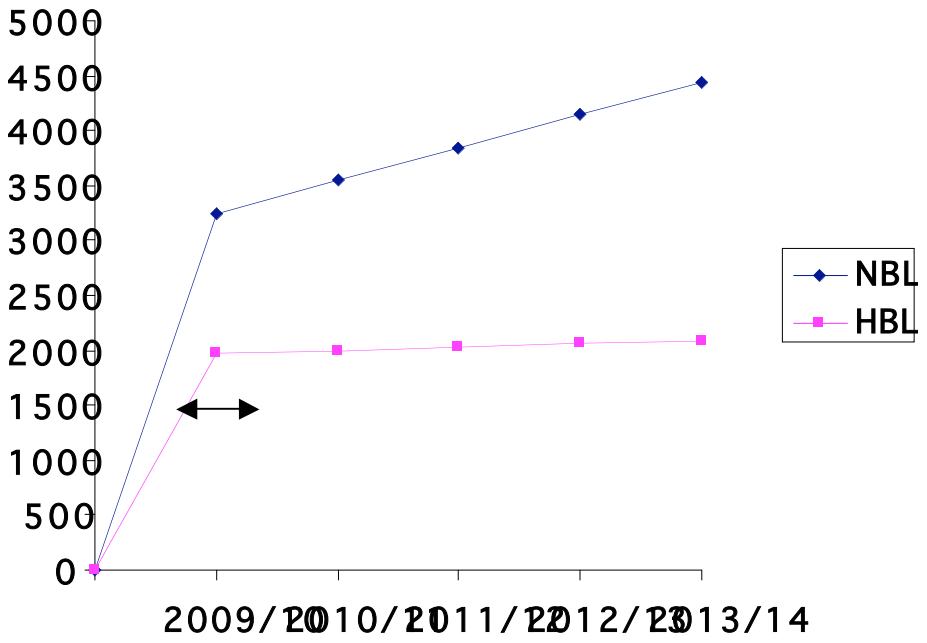


Fig No.4.8. shows the trend of the EBIT of both banks; NBL and HBL. The points have been taken from Table No. 4.20. The earning before tax and interest of both banks shows a increasing trend. The NBL trend of change in EBIT is more than in comparison to HBL, but both banks are doing well in EBIT as the future of EBIT seems to be increasing. This shows that the profitability of both banks are going to be strong.

c. Estimated Value for future of EPS

Table No. 4.21

Estimated Value for future of EPS

	Estimated Value for future of EPS (Rs)	
Fiscal year	**Nabil Bank Ltd**	**Himalayan Bank Ltd.**
2009/10	91.07	52.63
2010/11	90.15	51.26

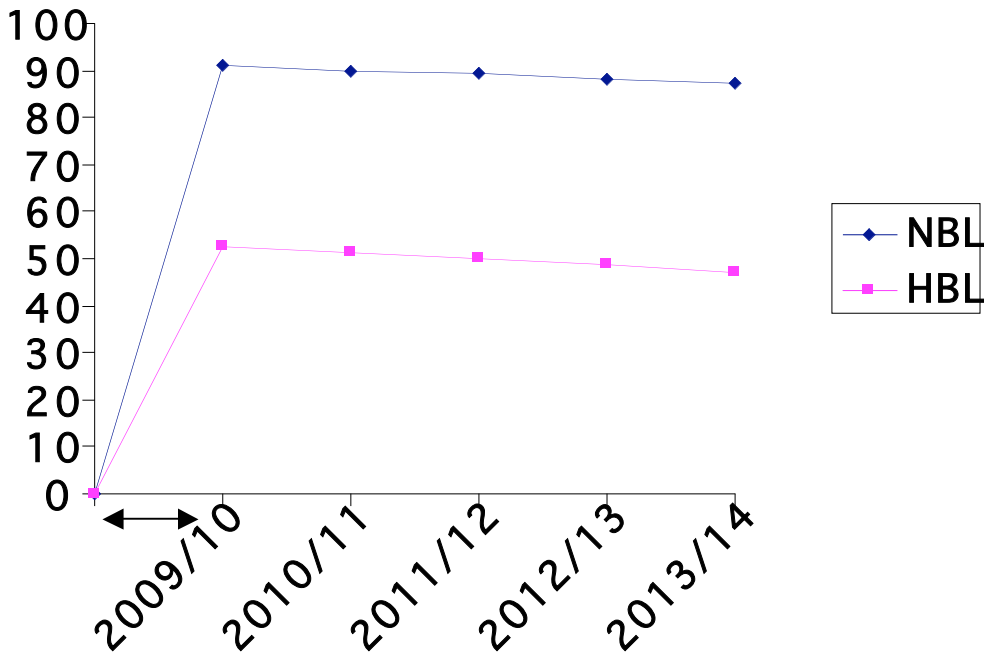
2011/2012	89.225	49.89
2012/2013	88.3	48.52
2013/2014	87.375	47.15
Average	**89.19**	**49.89**

Source: Appendix II (Annex 2.19, 2.23)

Future Estimated value of NBL, EPS is at decreasing rate; the growth rate is in negative, which is not good for the shareholders. It rates are Rs 91.07, 90.015, 89.225, 88.3, 87.375 in F/Y 2009/10, 2010/11, 2011/12, 2012/13, and 2013/14 respectively.

Similarly the EPS trend of HBL is not good either. It is also in decreasing trend. The rate are RS52.63, 51.62, 49.89, 48.52 and 47.15 in F/Y 2009/10, 2010/11, 2011/12, 2012/13, and 2013/14 respectively.

Fig No.4.9. Estimated Value for future of EPS



As seen in the figure no. 4.9 the trend line of ROE and EBIT of the NBL and HBL is increasing but the EPS of both banks shows the decreasing trend. The growth rate for

both banks is negative. Which means the EPS of both bank will be decreasing in future, which is not good for shareholders. It may rise as a bigger problem as the trend line of EPS directly signifies with the interest of public to put their money in bank's share.

4.3 MAJOR FINDINGS:

The major findings from the above prepared tables and figures using financial and statistical tools are summarized below for better simple understanding:

- The Debt equity ratio of Nabil Bank shows the large share of financing is by the creditors as compared to that of the owners. The average D/E ratio is the average Debt equity ratio of NBL is 24.47%. It shows that the creditors of NBL have 24.47% claims on the assets, where the last three years ratio are lower than average ratio , it indicates that claim of owners is higher than the creditors. In case of Himalayan Bank the average D/E ratio is 28.54%. The D/E ratio is higher than the average in three years i.e. 2004/2005, 2005/06 and 2007/08. A high ratio means more risky, in comparison NBL is more risky than HBL as the average D/E ratio is higher of NBL than HBL.

- Debt to total capital ratio gives the similar indication as the D/E ratio. The average debt to capital ratio is NBL is 30.67%, which is more than that of HBL (21.95%). It also suggests that NBL is more risky than HBL.

- Debt to total assets ratio express the relationship between creditors fund and total assets. The debt to total asset ratio of NBL and HBL is insignificant because long term Debt is negligible compared to Total assets. Overall debt asset ratio of NBL is low. Is average ratio is 3.29%. Similarly, Debt to total asset ratio of HBL is quite steady but even their ratio are low. The average ratio of HBL is 2.25%.

- The average ratio of LTD/TD of NBL is 76.35%. This means contribution of long term debt in NBL is 76.35% and remaining is contributed by current liabilities. The average ratio of LTD/TD of HBL is 82.54%. This means contribution of long term debt in HBL is 82.54% and remaining is contributed

by current liabilities. HBL is high levered in compare to NBL.

- The high Interest Coverage ratio is a sign of low burden of borrowing of the business and lower utilization of borrowing capacity. The higher the coverage, the greater the ability of the firm to make the payment of the interest. The interest coverage ratio is higher of NBL in comparison to HBL. The average interest coverage ration of NBL is 3.14 and HBL's average interest coverage ratio is 1.26.

- Return on Total asset ratio measures the profitability of all financial resources invested in the firm's assets. Hence, the higher ratio implies that the available source and tools are employed efficiently. Here the calculation showed that the average return on total asset ratio of NBL is 2.77 and that of HBL is 1.16. Thus, the NBL has been employing its sources and tools in more efficient way compared to HBL.

- Return on Net worth indicates how well the firm has used the resources contributed by the owners. It is good for the firm to be the return of investment high. Higher the ratio, the more efficient the management and utilization of shareholder's fund. The average return on net worth of NBL is 28.36 and of HBL is 23.64, which indicates that NBL is more efficient in management and utilization of shareholder's fund.

- The more per share return, the more excellent it is and the less per share return, the worse it is. The average EPS of NBL is 100% more than that of HBL. From the shareholder's point of view its better to invest in NBL than HBL.

- The dividend per share is considered excellent when it is higher. In comparing DPS of NBL and HBL for 5 F/Y, it is seen that DPS of NBL has always been higher than HBL. The average DPS of NBL is Rs.71.6 and DPS of HBL is Rs11.03.

- Value of Firm calculates the average Value of NBL= Rs 29330750000 and

HBL=14610460000. The value of NBL is higher than HBL.

- Under NI approach, optimum capital structure is that where the total value of the company is highest and overall capitalization rate is lowest. From the calculation, NBL shows higher value and lower capitalization rate hence maintain optimum capital structure than HBL.

- Net operating approach (NOI) is an independent hypothesis of capital structure decision of the firm. Any changes in leverage will not lead to any change in the total value of the firm and market price of share, as the overall cost of capital is independent of the degree of leverage. From the position of average cost of equity, it is found that NBL has average cost of equity of 3.48% where as HBL has average cost of equity 4.84%. It can be said that NBL has optimum capital structure compared to HBL.

- When the company employs debt or other fund carrying fixed charges in the capital structure, financial leverage exists. From the degree of financial leverage, it can be concluded that HBL bearing high financial risk because it has used long term debt. NBL has employed less long-term debt so it has lesser financial risk.

- The correlation coefficient of NBL is -0.68 that shows relationship between Debt equity ratios and overall capitalization rate is uncorrelated. The probable error 6 P.E is 5.1, which is greater than 'r', which indicates that the relationship between D/E ratio and kop is insignificant. Same applies for HBL, but the correlation coefficient 'r' of HBL is positive.

- In case of correlation coefficient between EBIT and interest of NBL shows that 'r' is 0.99 which is slightly less than 1 and the probable error 6P.E is also less than 'r' which indicates that the relationship between EBIT and interest charge of NBL is significant. The correlation coefficient between EBIT and interest of HBL is also slightly less than 1, 0.98 and the 6P.E is also less than 'r'. Thus the relationship between EBIT and Interest charge is significant.

- Time series Analysis (Trend Analysis) on Return of Equity of NBL in last five years is raising upwards as the growth rate (b) is positive. So, does its future trend. The ROE is increasing by growth rate of 0.6305. The growth rate of HBL is also increasing the ROE of HBL in last five years. The future ROE of HBL is also positive as it will be taking the upward trend.

- Trend analysis on EBIT of NBL is giving the growth rate (B) of 298, which shows that the EBIT from 2004/2005 has been increasing in all time series to 2008/09. The Future EBIT also shows the upward movement. The EBIT time series of HBL is similar; the growth rate (b) is 30, which is giving a positive sign that the future EBIT of HBL with be greater than now. The future trend of both banks is quite promising considering EBIT.

- The trend analysis on EPS shows a drastic result. The growth rate for both banks is negative. Which means the EPS of both bank will be decreasing in future, which is not good for shareholders. The higher the EPS is, the more money your shares of stock will be worth because investors are willing to pay more for higher profits.

CHAPTER V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 SUMMARY

The commercial bank has been a vital ingredient for economic development. They are intermediaries, which mobilize funds through the prudential combination of investment portfolios in advanced countries. Capital accumulation plays an essential role in acceleration of the economic growth of nations. But the capacity of saving in the developing country is quite low with a relatively higher marginal propensity of consumption. As a result developing countries are badly trapped into the vicious circle of poverty. The basic problem of these countries is raising the level of saving and investments. In order to collect the enough saving and put them into productive channels, financial institutions like banks are necessary. It will be utilize within the economy and will either be diverted abroad or used for productive consumption or speculative activities. Banking plays a significant role in the economic development of the country by extending credit to the people. Although banking industry in Nepal is making remarkable progress and growth, it's not without the problems. At the present context, the main problem faced by the business sector as well as bank is the unstable political and economic condition of the country. To keep the capital structure of the bank in the sound and proper stipulation according to the guidance of the central Bank is another challenge faced by the commercial banks.

Capital structure concept holds a major place in the financial management. Capital structure refers the proportion of debt and equity capital. A perfect balance between debt and equity is required to ensure the trade-off between risk and return. Thus, optimal capital structure means the capital structure having reasonable proportion of debt and equity. An optimal financial structure makes better use of society's fund of capital resources, and thus it increases the total wealth of society. Also, by increasing the firm's opportunity to engage in future wealth-creating investment, it increases the economy's rate of investment and growth.

In this study, to analyze about capital structure, two commercials banks: Nabil Bank

Ltd and Himalayan Bank Ltd have been taken. To make the study more reliable, the whole study has been divided into five chapters. This study endeavors to evaluate capital structure of commercials banks with reference to the sample companies. The main objectives of the study are to evaluate and analyze capital structure ratios of commercials banks under study. For the realistic study, review of various books, research studies and articles have been used. Various sequential steps to adopt a systematic analysis have been explained in the third chapter. Most of the data used in this study are secondary in nature. Five years data are taken as sampled years, which are analyzed by using financial and statistical tools such as Ratio analysis, Leverage analysis, Correlation analysis and Trend Analysis etc.

Each bank has its own strategy for the management of the capital structure but the capital structure may or may not be effective or optimal. The main objective of this study is to study, analyze and interpret different aspects of capital structure management of the selected commercial banks and to see whether they have optimal capital structure or not, to identify problems in capital structure of the sampled banks and recommend suggestion for their improvement.

5.2 CONCLUSIONS

The globalization of JVBs /CB is a reality. The growth and increasing integration of the world's economy has been parallel by expansion of global banking activities. Nepal, though a developing country couldn't deny the fact that JVBs/CB has running potentially, which is responded by extending loans and developing new, highly innovative financial techniques that laid the foundation for totally new approaches to the provision of banking services. On the basis of entire research study, some conclusion has been deduced.

This study is particularly deals with conclusion about "A Study of capital structure management of commercials banks – Nabil Bank Ltd and Himalayan Bank Ltd". The Capital Structure decision is crucial 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 present study evaluated the capital structure ratios and the relationship between capital structure and profitability of firms. The study reveals that the companies are

financially leveraged with a large percentage of total debt being short term. Commercial bank has been using debt.

The major findings of using financial analysis and statistical analysis of this study during the period of five years of NBL and HBL are summarized below:

- The higher D/E ratio constitutes that the outsider's claim in total assets of the banks in owner's claim. On an average NBL constitutes 24.47% of D/E ratio compared to 28.54% of D/E ratio of HBL.

- The ICR shows that the both banks are able in paying interest in comparison NBL is operating efficiently.

- The average ROE of the NBL and HBL are 28.36% and 23.64 respectively. It has great impact to show the real performance and strength of the bank in attractive future investment.

- EPS of NBL is in decreasing trend and so is the EPS of HBL. In these regard, public would not be attracted to buy the shares. The financial risk of banks HBL is higher than NBL. In comparison it can be said that the public will be more interest in buying share of NBL than of HBL.

- When the company employs debt or other fund carrying fixed charges in the capital structure, financial leverage exists. From the degree of financial leverage, it can be concluded that HBL bearing high financial risk because it has used long term debt. NBL has employed less long-term debt so it has lesser financial risk.

- In comparing DPS of NBL and HBL for 5 F/Y, it is seen that DPS of NBL has always been higher than HBL. The average DPS of NBL is Rs.71.6 and DPS of HBL is Rs11.03.

- The study revealed that the correlation coefficient of NBL is -0.68, which shows relationship between Debt equity ratio, and overall capitalization rate is

uncorrelated. The probable error 6 P.E is 5.1, which are greater than 'r', which indicates that the relationship between D/E ratio and Ko is insignificant. Same applies for HBL, but the correlation coefficient 'r' of HBL is positive.

- Trend Analysis of ROE and EBIT of Both banks shows progressive future. However the EPS of both banks is in downward trend and shows that the EPS of NBL and HBL will be decreasing in future too.

High inflation, balance of payment deficit and huge trade deficit are major challenges the banks are facing now. Other fundamental cause of banking problems is poor management, and more broadly, weak internal governance by owners and managers. These weaknesses are frequently brought to light by adverse macroeconomic developments, which have a negative impact on all banks, but tend to affect poorly managed ones most heavily. The fallout of Asian crisis and the impetus given to the strengthening of domestic financial systems has resulted in a more by the regulators to set up universally acceptable standards and codes for benchmarking financial systems. In view of the vast diversity in the size, asset liability profiles of the banks it has become very difficult for a few of them to meet the new benchmark of global standards.

Given the huge expansion of banks and financial institutions, NRB's supervision is still lagging behind. It is the duty of central bank to make and change the rule accordingly to control the monetary policy of the nation. As we can see within 5five years the number of banks have been increasing but the rate of deposit in each bank is not satisfactory. The customers are losing their faith, as there have been cases of failure of banks. To win the competition, banks have been rapidly increasing the rate of return on deposit, the number of commercial banks is increasing every year, deregulation in political condition is hampering the banking sector and the unhealthy competition between banks has lead to some mistakes and weakness in managerial decision.

The study concludes that regular income and cost of capital are the factors that determine the capital structure and net return is considered while charging the capital structure composition. Banks that pays all debt in time is said to have sound debt

policy. The private sector banks have been successful in increasing their deposits but the rate is still very slow in comparison to the number of new banks being listed as 'A' bank. The operating profits have gone up, so have the provision for loan loss. The increment of Government budgeting has helped in increasing in bank deposit and loan demands. The shares are issued in public is increasing. In short, banking sector in Nepal is somehow doing well even though it is facing number of hurdles.

5.3 RECOMMENDATIONS

At the end of the research, the study without practicable suggestion would be incomplete phenomenon; therefore, in this section of the study, it endeavors to recommend few points that can be helpful to the company as well as the stakeholders. These recommendations are based upon above calculations and drawn conclusions. These recommendations are guidelines, which would be helpful in taking prompt and appropriate decision about capital structure and other major problems faced by banking sector of Nepal.

- The Debt ratio of about 33% is considered appropriate. So this 33% ratio can be assumed as standard ratio while analyzing. With comparison to above standard both the firm have low ratio. This shows that the share of total assets financed by outsider's fund is very low. It indicates that the owner's claim on total assets of the company is higher than creditors claim. If the company is unsuccessful to yield a substantial percentage of return, the owners should bear heavy losses but the creditors incur only the moderate loss. Therefore, it is recommended that both the firms raise their debt ratio.

- The calculated ratios of both companies reveal that the total debt is composed of high amount of current liabilities. Higher contribution of current liabilities is preferable or not, it depends upon the liquid assets and operating efficiency of the firm. Generally 70% long-term debt to total debt is preferable but both companies have very low ratio, which shows unsatisfactory condition. All the firms can use long-term debt to collect money, to take advantage of employing debt capital optimally. Therefore it is recommended that both companies should properly balance long-term debt and short-term debt or current liabilities.

- Although the interest coverage ratio indicate that the companies are able to meet the claim of creditors but comparing to the standard it seems that both the companies have to increase the interest coverage ratio. They have very low ratio as compared to the standard so they have to rise this ratio otherwise the company may incur loss by not being able to claim to the creditor in the long run. So, both companies are recommended to minimize financial expenses and other expenses. They can increase return by using less cost debt, improving strategy of promotion activities etc.

- About 40% to 50% of permanent capital can be assumed as reasonable level of long-term debt. From the analysis, it can be said that average ratio of long-term debt to total capital employed of NBL and HBL are lesser than the standard. So both the companies should try to take benefit by employing long-term debt. Similarly, average ratio of NBL shows a relatively better level of ratio in compare to HBL but still less than the industry average, so it is recommended to increase the debt level.

- Shareholders seek high return from their investment. Observing return on shareholder's equity ratio, it has been found that NBL has the higher and HBL has lesser ratio. Both the companies are recommended to plan their capital structure well by analyzing the possible financial alternatives.

- Capital structure is a serious matter, which affects EPS, Value of the firm, cost of capital etc. Between both the companies, NBL is found to have the lesser cost of capital and higher value in comparison to HBL. However, in the context of both companies; they have not given more attention in the capital structure matter seriously. So it is recommended that both the companies follow or give more attention into the theoretical aspects of the capital structure management and try to manage their activities accordingly.

- Trend Analysis equation used to estimate or predict the values of the variable for any period in future. Hence, between the results of NBL and HBL, NBL has a stronger position in ROE and EBIT. Thus, HBL must work on to other

factors to increase its dependent variable. However in case of EPS trend line, both companies have to work as both trend lines is moving downward. It may raise as a bigger problem as the trend line of EPS directly signifies with the interest of public to put their money in bank's share.

- Besides giving priority of investing of government securities, NBL and HBL are recommended to invest its fund in the purchase shares and debentures of other financial, non-financial companies, hotels and government companies. This also helps in the maintenance of a sound portfolio of the banks.

- Total deposit turnover position of both banks is less than unity. Fixed deposits and saving deposits turnover position is also not satisfactory on both banks. Due to the poor turnover position the changes of bad debts and non-earning idle fund are high on both banks. So it is recommended that both banks should give proper attention on collection of over dated loan and advances and utilization of idle fund as loan and advances.

- As both banks have been facing loss on loan provided, it is recommended to set up a credit information bureau to collect and share information on borrowers and improve the credit appraisal of banks and financial institutions.

- The sampled banks should go on to strengthen their human resources by giving practical training from time to time as the technology used in banking sector is changing rapidly. They should give special attention to improve the efficiency of their human resources, which is taken as the heart of the organization.

- The major challenge for banks is to fall in line with the emerging scenario and adopting the require technology to provide stake-of-the-art services to the customers. Introduction of on-line, inter-connected automatic teller machines (ATM), telephone banking, on-line bill payment and Internet banking are some of the high tech facilities. Banks have to provide in order to survive in the competitive scenario. Technology should ultimate results in better customer service, low cost and quick delivery.

- Both banks should focus on improving transparency; improving valuation standards of complex financial instruments; improving prudential rules and risk management practices; and making progress on wider issues related to market functioning, including, credit rating agencies.

- There should be refined policy on giving license to new banks and should encourage banks to establish branches not only in cities but in rural areas too. Commercial banks have to adopt a financial emerging approach to rural banking.

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APPENDICES

Appendix-I

Data Presentation

Annex-1.1. Balance Sheet Of Nabil Bank Limited For last Five Years

Capital & Liabilities	**2004/05**	**2005/06**	**2006/2007**	**2007/2008**	**2008/09**
Share Capital	491,654,400	491,654,400	491,654,400	689,216,000	965,747,000
Reserve And Surplus	1,165,983,908	1,383,340,017	1,565,395,315	1,747,982,989	2,164,493,637
Debenture And Bonds	-	-	-	240,000,000	300,000,000
Borrowing	17,062,680	173,201,710	882,572,500	1,360,000,000	1,681,305,000
Deposits	14,586,608,707	19,347,399,440	23,342,285,327	31,915,047,467	37,348,255,840
Bills Payable	85,419,747	92,536,853	83,514,820	238,421,890	463,138,615
Proposed & Unclaimed Dividends	361,221,024	435,084,062	509,417,925	437,373,004	361,325,024
Income Tax Liabilities	15,345,023	34,604,855	-	38,776,869	8 0,232,454
Other Liabilities	340,786,604	372,149,741	378,552,721	465,940,930	502,899,934
Total	**17,064,082,093**	**22,329,971,078**	**27,253,393,008**	**37,132,759,149**	**43,867,397,504**

Assets	**2004/05**	**2005/06**	**2006/2007**	**2007/2008**	**2008/09**
Cash Balance	146,352,555	237,818,512	270,406,987	511,426,584	674,395,434
Balance With Nepal Rostra Bank	389,705,047	318,358,771	1,113,415,436	1,829,470,769	2,648,596,348
Balance With Banks/ Financial Institutions	23,323,012	74,061,305	16,003,428	330,243,702	49,520,689
Money At Call And Short Notice	868,428,307	1,734,901,943	16,003,428	1,952,360,700	552,888,297
Investment	4,275,528,208	6,178,533,108	8,945,310,567	9,939,771,428	10,826,379,001
Loans, Advance And Bills Payable	10,586,170,002	12,922,543,153	15,545,778,730	21,365,053,318	27,589,933,041
Fixed Assets	361,235,392	319,086,147	286,895,224	598,038,998	-660,988,986
Non Banking Assets	-	-	-	-	-
Other Assets	413,339,570	512,050,004	544,668,139	606,393,650	864,695,708
Total	**17,064,082,093**	**22,329,971,078**	**27,253,393,008**	**37,132,759,149**	**43,867,397,504**

Annex-1.2. Profit And Loss Account Of Nabil Bank Limited For Last Five Years

Assets	**2004/05**	**2005/06**	**2006/2007**	**2007/2008**	**2008/09**
Interest Income	1,068,746,769	1,309,998,500	1,587,758,714	1,978,696,727	2,798,486,196
Interest Expenses	243,544,611	357,161,304	555,710,109	758,436,212	1,153,280,052
Net Interest Income	825,202,158	952,837,196	1,032,048,605	1,220,260,515	1,645,206,144
Commission And Discount	128,376,550	138,293,913	150,608,550	159,319,857	179,693,027
Other Operating Income	56,440,760	82,897,862	87,574,553	94,359,475	144,164,143
Exchange Income	184,878,868	185,483,662	209,926,167	196,487,415	251,919,712
Total Operating Income	1,194,898,336	1,359,512,633	1,480,157,875	1,670,427,262	2,220,983,026
Staff Expense	199,516,217	219,780,853	240,161,275	262,907,576	339,897,913
Other Operating Expense	190,299,470	182,696,413	188,183,330	220,750,570	265,158,033
Operating Profit Before Provision For Possible Loss	805,082,649	957,035,367	1,051,813,270	1,186,769,116	1,615,927,080

Provision For Loss	8,662,150	3,769,541	14,206,365	64,055,186	45,722,434
Operating Profit	796,420,499	953,265,826	1,037,606,905	1,122,713,930	1,570,204,646
Non Operating Income /(Expense)	(48,089)	735,324	5,280,641	24,083,737	2,190,102
Provision For Possible Losses Write Back	4,454,762	7,729,444	10,926,317	11,100,529	10,617,867
Profit From Regular Activities	800,827,172	961,730,594	1,053,813,863	1,157,898,196	1,583,012,615
Income/ (Expenses) From Extra Ordinary Activities	41,156,398	26,073,578	40,736,694	39,990,808	43,521,866
Profit From All Activities	841,983,570	987,804,172	1,094,550,557	108,899,000	1,626,534,481
Provision For Staff Bonus	84,198,357	89,800,379	99,504,596	108,899,000	147,866,771
Provision Fro Income Tax	237,671,128	262,741,444	321,086,263	342,521,610	447,614,612
Net Profit/(Loss)	**520,114,085**	**635,262,349**	**673,959,698**	**746,468,394**	**1,031,053,098**

Annex 1.3. Balance Sheet Of Himalayan Bank Limited For last Five year

Capital And Liabilities	**2004/05**	**2005/06**	**2006/07**	**2007/08**	**2008/09**
Share Capital	643,500,000	772200000	810810000	1013512500	1216215000
Reserve Funds	898,246,461	993975616	1335689655	14799479102	1903665537
Debenture And Bonds	-	360000000	360000000	860000000	500000000
Borrowings	506,048,286	144624897	235967811	83177973	-
Deposit Accounts	24,814,011,984	29490851640	30048417756	21842789356	34681345179
Bills Payable	68,399,189	73577730	91303206	102669796	113509140
Proposed And Dividend Payable		238409026	130939748	263076319	162096954
Income Tax Liabilities	-	-	11913476	19131036	16163115
Other Liabilities	914,488,735	386750736	494099459	491695555	733327144
Total	**27,844,694,655**	**29460389672**	**33519141111**	**36175531637**	**39320322069**

Asset	**2004/05**	**2005/06**	**2006/07**	**2007/08**	**2008/09**
Cash Balance	286,529,934	305428144	177242226	268183489	473759695
Balance With Nepal Rastra Banks	1,727,941,023	1096253097	1272543067	935841697	2328405821
Balance With Banks/Financial Institute	-	315671095	307555959	2341117704	246361272
Money At Call And Short Notice	441,080,900	1005280000	1710023859	518529500	1170793650
Investments	11,692,341,559	10889031449	11822984558	13340176785	8710690646
Loans, Advances And Bills Purchased	12,424,520,646	14642559555	16997997046	19497520482	24793155269
Fixed Assets	295,822,023	540842021	574060430	795309700	952196395
Non Banking Assets		21732523	12766060	10306683	22694688
Other Assets	976,458,570	643609788	643967906	565545597	622264633
Total	**27,844,694,655**	**29460389672**	**33519141111**	**36175531637**	**39320322069**

Annex 1.4. Profit And Loss Account Of Himalayan Bank For Last Five Years.

Particulars	**2004/05**	**2005/06**	**2006/07**	**2007/08**	**2008/09**
Interest Income	1446468083	1626473819	1775582617	1963647472	2342198179
Interest Expenses	561963770	648841818	767411247	823755838	934778015
Net Interest Income	884504313	977632001	2008171370	1139902634	1407620164
Commission And Discount	132815882	165447872	193224228	202888358	284302277
Other Operating Incomes	41300617	52324749	40328872	62103241	46342872
Exchange Fluctuation Income	127300987	198130124	151637322	192600803	249982606
Total Operating Income	1195921799	1393534756	1393361792	1597495036	1988047919
Staff Expenses	178589357	234588969	290921268	30758289	360980641
Other Operating Expenses	277375035	329699087	322865061	329005633	398316566
Exchange Fluctuation Loss	-	-	-	-	-

Operating Profit Before Possible Losses	739957407	829246700	779575463	960961114	1228750712
Provision For Possible Losses	73898230	145154520	90688827	58431489	68805514
Operating Profit	666059177	684092180	688886636	902529625	1159945198
Non-Operating Income/Loss	2794642	1887070	3493278	9700477	3810145
Loan Loss Provision Written Back	-	56561901	412654152	184106852	19484655
Profit From Regular Operations	668853819	742541151	1105034066	1096336954	1183239998
Loss From Extra-Ordinary Activities	88253189	(2902317)	315890702	52614217	(9973406)
Net Profit After Considering All Activities	580600630	739683834	789143364	1043722737	1173266592

Staff Bonus Provision	58060063	67239895	71740305	94883886	106660599
Provision After Staff Bonus	-	672398939	717403059	948838851	-
Tax Provision	214265396	214941243	225580154	312970332	313771258
Net Profit	**303276171**	**457457696**	**491822905**	**6535868519**	**752834735**

Annex 1.5. Principal Indicator of Nabil bank for last five years.

Particulars	Indicators	Financial Year						
		2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09
1. Net Profit/Gross Income	%	29.16	31.92	34.33	35.32	32.16	29.68	30.56
2. Earnings Per Share	Rs.	84.66	92.61	105.49	129.21	137.08	108.31	106.76
3. Market Value per Share	Rs.	740	1,000	1,505	2,240	5,050	5,275	4,899
4. Price Earning Ratio	Times	8.74	10.80	14.27	17.34	36.84	48.70	45.89
5. Dividend (including bonus) on share capital	%	50.00	65.00	70.00	85.00	140.00	100.00	85.00
6. Cash Dividend on Share Capital	%	50.00	65.00	70.00	85.00	100.00	60.00	35.00
7. Interest Income/Loans & Advances	%	9.83	9.45	8.70	8.29	8.14	8.04	8.82
8. Employee Expense/Total Operating Expense	%	30.34	29.43	31.50	28.93	24.41	21.17	23.96
9. Interest Expense on Total Deposit and Borrowings	%	2.09	1.97	1.68	2.09	2.54	2.64	3.22
10. Exchange Gain/Total Income	%	10.09	11.03	12.24	10.31	10.02	7.81	7.47
11. Staff Bonus/ Total Employee Expenses	%	31.51	39.78	42.20	40.86	41.43	41.42	43.50
12. Net Profit/Loans & Advances	%	5.27	5.33	5.32	5.24	4.62	3.96	4.02
13. Net Profit/ Total Assets	%	2.43	2.73	3.06	3.23	2.72	2.32	2.55
14. Total Credit/Deposit	%	60.34	60.55	75.05	68.63	68.13	68.18	73.87
15. Total Operating Expenses/Total Assets	%	4.06	3.69	3.73	3.86	3.97	3.86	4.34
16. Adequacy of Capital Fund on Risk Weighted Assets								
a. Core Capital	%	11.45	12.12	11.35	10.78	10.40	8.75	8.74
b. Supplementary Capital	%	1.60	1.44	1.09	1.52	1.64	2.35	1.96
c. Total Capital Fund	%	13.05	13.56	12.44	12.31	12.04	11.10	10.70
17. Liquidity (CRR)	%	8.51	6.87	3.83	3.26	6.00	8.37	9.03
18. Non Performing Loans/Total Loans	%	5.54	3.35	1.32	1.38	1.12	0.74	0.80
19. Weighted Average Interest Rate Spread	%	4.51	4.46	5.01	4.90	4.15	3.94	4.16
20. Book Net Worth per Share	Rs.	267	301	337	381	418	354	324
21. Total Shares	Number	4,916,544	4,916,544	4,916,544	4,916,544	4,916,544	6,892,160	9,657,470
22. Total Permanent Employees	Number	326	372	426	441	427	416	505

Annex 1.6. Principal Indicator of Himalayan bank for last five years

PARTICULARS	UNIT	FY 2003/2004 2060/2061	FY 2004/2005 2061/2062	FY 2005/2006 2062/2063	FY 2006/2007 2063/2064	FY 2007/2008 2064/2065
Per Share Income	Rs.	49.05	47.91	59.24	60.66	62.74
Per Share Market Value	Rs.	840	920	1100	1740	1980
Price Earning Ratio	Ratio	17.12	19.20	18.57	28.69	31.56
Dividend in Share Capital (Including Bonus)	Percent	20.00	31.58	35.00	40.00	45.00
Cash Dividend in Share Capital	Percent	0.00	11.58	30.00	15.00	25.00
Interest Income/Loan and Advances	Percent	9.64	10.75	10.32	9.98	9.73
Staff Expenses/Total Operating Expenses	Percent	40.00	41.95	41.57	47.40	48.31
Interest Expenses in Total Deposit	Percent	2.23	2.26	2.45	2.55	2.59
FX Fluctuation Gain/Total Income	Percent	7.40	7.80	9.42	6.71	7.52
Staff Bonus/Total Staff Expenses	Percent	23.45	24.53	22.28	19.78	23.58
Net Profit/Loan and Advances	Percent	2.20	2.48	3.12	2.89	3.26
Net Profit/Total Assets	Ratio	1.06	1.11	1.55	1.47	1.76
Total Loan/Deposits	Percent	54.30	50.07	55.27	56.57	61.23
Total Operating Expenses/Total Income	Percent	27.00	29.19	30.02	30.32	28.54
Capital Adequacy Ratio:						
A. Core Capital	Percent	7.69	8.33	8.65	9.61	9.64
B. Supplementary Capital	Percent	2.96	2.68	2.62	1.51	3.06
C. Total Capital Fund	Percent	10.65	11.01	11.26	11.13	12.70
Liquidity (CRR)	Percent	8.28	7.86	5.92	5.92	5.13
Non-performing Loan/Total Loan	Percent	8.88	7.44	6.60	3.61	2.36
Weighted Average Interest Rate Spread	Percent	3.25	3.19	3.80	3.57	3.66
Book Networth per share	Number	246.93	239.59	228.72	264.74	247.95
Total Share	Number	5,362,500	6,435,000	7,722,000	8,108,100	10,135,125
Total Staff	Number	455	501	561	584	591

Appendix-II

Calculation

Annex 2.1. Calculation of Long term Debt of Nabil and Himalayan Bank Ltd for Last Five Years

Year	NBL	HBL
2005	17062680	506048286
2006	173201710	504624897
2007	882572500	595967811
2008	1600000000	943177973
2009	1981305000	500000000

Annex 2.2. Calculation of Shareholders' equity of Nabil and Himalayan Bank Ltd for Last Five Years

Year	NBL	HBL
2005	503308800	1541746461
2006	1874994417	1766175616
2007	2057049715	2146499655
2008	2437198989	2493459602
2009	3130240637	3119880537

Annex 2.3. Calculation of Total Capital of Nabil and Himalayan Bank Ltd for Last Five Years

Year	NBL	HBL
2005	520371480	2047794747
2006	2048196127	2270800513
2007	2939622215	2742467466
2008	4037198989	3436637575
2009	5111545637	3619880537

Annex 2.4. Calculation of Total debt of Nabil and Himalayan Bank Ltd for Last Five Years

Year	NBL	HBL
2005	1974164590	1488936210
2006	1107877221	988363389
2007	1853997966	1000223699
2008	2780512693	1819750679
2009	3388901027	1525096353

Annex 2.5. Calculation of Total Asset of Nabil and Himalayan Bank Ltd for Last Five Years

Year	NBL	HBL
2005	17064082093	27844694655
2006	22329971078	29460389672
2007	27253393008	33519141111
2008	37132759149	36175531637
2009	43867397504	39320322069

Annex 2.6. Calculation of Interest of Nabil and Himalayan Bank Ltd for Last Five Years

Year	NBL	HBL
2005	243544611	561963770
2006	357161304	648841818
2007	555710109	767411247
2008	758436212	823755838
2009	1153280052	9354778051

Annex 2.7. Calculation of Net Income of Nabil and Himalayan Bank Ltd for Last Five Years

Year	NBL	HBL
2005	520114085	303276171
2006	635262349	357457696
2007	673959698	491822905
2008	746468394	6535868519
2009	1031053098	752834735

Annex 2.8. Calculation of EPS of Nabil and Himalayan Bank Ltd for Last Five Years

Year	NBL	HBL
2005	105.49	47.91
2006	129.21	59.24
2007	137.08	60.66
2008	108.31	62.67
2009	106.76	61.90

Annex 2.9. Calculation of EBIT of Nabil and Himalayan Bank Ltd for Last Five Years

Year	NBL	HBL
2005	1085000000	2001384008
2006	1344965476	1772583689
2007	1650260666	1484814306
2008	1956325216	1321240757
2009	2779814533	2526909377

Annex 2.10. Calculation Of Cost Of Overall Capitalization (Ko)

Of Nabil Bank Ltd For Last Five Years.

Year	**Net Operating Earning (EBIT)**	**Total Market Value Of Firm (V)**	**Cost Of Overall Capitalization (Ko)**
2004/2005	1085.000000	7569.99	17.76
2005/2006	1344.965476	11186.25	12.02
2006/2007	1650.260666	25711.11	6.41
2007/2008	1956.325216	37956.14	5.15
2008/2009	2779.814533	49230.24	5.6

Annex 2.11. Calculation Of Cost Of Overall Capitalization (Ko)

Of Himalayan Bank Ltd For Last Five Years.

Year	**Net Operating Earning (EBIT)**	**Total Market Value Of Firm (V)**	**Cost Of Overall Capitalization (Ko)**
2004/2005	2001.384008	6486.05	17.76
2005/2006	1772.583689	8998.82	12.02
2006/2007	1484.814306	14704.05	6.41
2007/2008	1321.240757	21010.72	5.15
2008/2009	2526909377	21852.5	5.6

*Note The Rate Of EBIT And The Value Of Firm Is In Rest In Million.

Annex 2.12. Calculation Of Cost Of Equity (Ke) Nabil Bank Ltd For Last Five Years.

Year	**Earning Available To Common Stock (Ni)**	**Market Value Of Stock**	**Cost Of Equity (Ke)**
2004/2005	176.06	1505	7.44
2005/2006	635.26	2240	3.03
2006/2007	673.05	5050	2.71
2007/2008	746.46	5275	2.05
2008/2009	1031.05	4899	2.16

Annex 2.13. Calculation Of Cost Of Equity (Ke) Himalayan Bank Ltd For Last Five Years

Year	**Earning Available To Common Stock (Ni)**	**Market Value Of Stock (S)**	**Cost Of Equity (Ke)**
2004/2005	308.27	840	5.6
2005/2006	457.45	920	6.4
2006/2007	491.82	1100	5.45
2007/2008	635.86	1740	3.62
2008/2009	752.83	1980	3.13

Annex 2.14. Calculation Of Debt Equity Ratio And Overall Capitalization Rate of Nabil Bank Ltd For Last Five Years.

Year	**X=DEP**	**Y=Ko**	**xy**	**x2**	**y2**
2004/05	10	18	180	100	324
2005/06	12	12	144	144	144
2006/07	14	6	84	196	36
2007/08	66	5	330	4356	25
2008/09	63	6	378	3969	36
Total	**765**	**47**	**1116**	**8756**	**556**

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

$$= \frac{5 \times 1116 - 765 \times 47}{\sqrt{5 \times 8756 - (765)^2}\sqrt{5 \times 556 - (47)^2}}$$

$$= -0.68$$

Annex 2.15. Calculation Of Debt Equity Ratio And Overall Capitalization Rate of Himalayan Bank Ltd For Last Five Years.

Year	**X=DEP**	**Y=Ko**	**xy**	**x2**	**y2**
2004/05	33	39	1287	1089	1521
2005/06	29	15	435	841	225
2006/07	28	10	280	784	100
2007/08	38	8	304	1444	64
2008/09	16	9	144	256	81
Total	**144**	**81**	**2450**	**4414**	**1991**

$$r = \frac{N\Sigma XY - \Sigma X\,\Sigma Y}{\sqrt{N\Sigma X^2 - (\Sigma X)^2}\,\sqrt{N\Sigma Y^2 - (\Sigma Y)^2}}$$

$$= \frac{5 \text{ X } 2450 - 144 \text{ X } 81}{\sqrt{5X\ 4414 - (144)^2}\,\sqrt{5X\ 1991 - (81)^2}}$$

$$= 0.27$$

Annex 2.16. Correlation Coefficient Between EBIT & Interest Charges (Rest. In Million)

of Nabil Bank Ltd For Last Five Year

Year	**x=EBIT**	**Y=Interest**	**xy**	**x2**	**y2**
2004/05	1085	245	265825	1177552	60025
2005/06	1345	357	480165	1809025	127449
2006/07	1650	555.7	916905	2722500	308802.49
2007/08	1956	758.4	1483430.4	385936	375170.56
2008/09	2779	1153.2	32047742.8	7722841	1329870.24
Total	**8815**	**3069.3**	**6351068.2**	**17257527**	**2401317.29**

$$r = \frac{N\Sigma XY - \Sigma X\,\Sigma Y}{\sqrt{N\Sigma X^2 - (\Sigma X)^2}\,\sqrt{N\Sigma Y^2 - (\Sigma Y)^2}}$$

$$= \frac{5\ X\ 6351068.2 - 8815 X\ 3069.3}{\sqrt{5X\ 17257527 - (8815)^2}\,\sqrt{5X\ 2401317.29 - (3069.3)^2}}$$

$$= 0.99$$

Annex 2.17. Correlation Coefficient Between EBIT & Interest Charges

(Rs. In Million) of Himalayan Bank Ltd For Last Five Year

Year	x=EBIT	y=Interest	**xy**	**x2**	**y2**
2004/05	6486	561.96	3644872.56	42068196	315799.04
2005/06	8998	648.84	5838262.32	80964004	420993.34
2006/07	14074	767.41	11283996.64	216207617	588918.1
2007/08	21011	823.7	17306761	441462121	678481.69
2008/09	21853	934.7	20425999	477553609	873664.09
Total	**73052**	**373661**	**58499891.32**	**1258255546**	**2877856.275**

$$r = \frac{N\Sigma XY - \Sigma X\,\Sigma Y}{\sqrt{N\Sigma X^2 - (\Sigma X)^2}\,\sqrt{N\Sigma Y^2 - (\Sigma Y)^2}}$$

$$= \frac{5 \times 58499891.32 - 73052 \times 373661}{\sqrt{5 \times 1258255546 - (73052)^2}\,\sqrt{5 \times 2877856.275 - (373661)^2}}$$

$$= 0.968$$

Annex 2.18. Trend Line Analysis of Nabil Bank for Last Five Years taking ROE:

X	**y**	**x=2(X-2007)**	**x2**	**xy**
2004/05	34	-4	16	-136
2005/06	33.88	-2	4	-67.76
2006/07	10.39	0	0	0
2007/08	30.62	2	4	122.48
2008/09	32.93	4	16	1312
N=5	Σy=141.82	Σx=0	Σx2=40	Σxy=50.44

a= 23.64

b=1.261

Annex 2.19. Trend Line Analysis of Nabil Bank for Last Five Years taking EBIT:

X	y (In Million)	**x=2(X-2007)**	**x2**	**xy**
2004/05	1085	-4	16	-4340
2005/06	1335	-2	4	-2670
2006/07	1650	0	0	0
2007/08	1956	2	4	7824
2008/09	2780	4	16	11120
N=5	Σy=8806	Σx=0	Σx2=40	Σxy=11934

*Note- The Value Of EBIT Has Been Rounded Up.

a=1761.2

b=298.35

Annex 2.20. Trend Line Analysis of Nabil Bank for Last Five Years taking EPS:

X	y (In Million)	x=2(X-2007)	x2	xy
2004/05	105.49	-4	16	-423
2005/06	129.21	-2	4	-258
2006/07	137.08	0	0	0
2007/08	108.31	2	4	217
2008/09	106.76	4	16	428
N=5	Σy=478.54	Σx=0	Σx2=40	Σxy=-37

a=95.7

b=--0.925

Annex 2.21. Trend Line Analysis of Himalayan Bank for Last Five Years taking ROE:

X	**Y**	**x=2(X-2007)**	**x2**	**xy**
2004/05	19.99	-4	16	-79.96
2005/06	25.9	-2	4	-51.8
2006/07	22.19	0	0	0
2007/08	25.3	2	4	101.2
2008/09	24.13	4	16	193.04
N=5	Σy=118.23	Σx=0	Σx2=40	Σxy= 162.48

a= 23.64

b= 4.06

Annex 2.22. Trend Line Analysis of Himalayan Bank for Last Five Years taking EBIT:

X	Y (In Million)	x=2(X-2007)	x2	xy
2004/05	2001	-4	16	-8004
2005/06	1773	-2	4	-3546
2006/07	1485	0	0	0
2007/08	1321	2	4	2642
2008/09	2527	4	16	10108
N=5	Σy=9107	Σx=0	Σx2=40	Σxy=1200

*Note- The Value Of EBIT Has Been Rounded Up.

a=1812.4

b=30

Annex 2.23. Trend Line Analysis of Himalayan Bank for Last Five Years taking EPS:

X	**Y (In Million)**	**x=2(X-2007)**	**x2**	**xy**
2004/05	47.91	-4	16	-192
2005/06	59.24	-2	4	-236
2006/07	60.66	0	0	0
2007/08	62.74	2	4	125
2008/09	61.90	4	16	248
N=5	Σy=293	Σx=0	Σx2=40	Σxy=-55

a= 58.6

b= - 1.37