A COMPARATIVE ANALYSIS ON CAPITAL STRUCTURE MANAGEMENT OF GENERAL INSURANCE COMPANIES IN NEPAL

(Special reference to PICL, SICL & NIL)

A THESIS

Submitted By:

Bandana Lekhak

Nepal Commerce Campus

Campus Roll No: 1601/065

T.U. Regd. No.: 5-1-61-8-2001

M.B.S (II) S. No.: 250066

Submitted To:

Office of the Dean

Faculty of Management

Tribhuwan University

In partial fulfillment of the requirements of the degree of

Masters of Business Studies (MBS)

Minbhawan, Kathmandu

October, 2012

VIVA-VOCE SHEET

We have conducted the viva-voce of the thesis presented

Submitted By:

BANDANA LEKHAK

Entitled:

A COMPARATIVE ANALYSIS ON CAPITAL STRUCTURE MANAGEMENT OF GENERAL INSURANCE COMPANIES IN NEPAL

(Special reference to PICL, SICL & NIL)

And found the thesis to be original work of the student and written according to the prescribed format. We recommend the thesis to be accepted as partial fulfillment of the requirements for the Degree of

Master of Business Studies (MBS)

Viva-Voce Committee

Head (Research Department) ……

Member (Thesis Supervisor) ……

Member (External Expert) ……

RECOMMENDATION

This is to certify that the thesis

Submitted by:

BANDANA LEKHAK

Entitled:

A COMPARATIVE ANALYSIS ON CAPITAL STRUCTURE MANAGEMENT OF GENERAL INSURANCE COMPANIES IN NEPAL
(Special reference to PICL, SICL & NIL)

has been prepared as approved by this Department in the prescribed format

of the faculty of Management. This thesis is forwarded for examination.

……..	**……..**
Dr. Sushil Bhakta Mathema	**Madhav Prasad Neupane**
(Head of Research Department	**(Campus Chief)**
& Thesis Supervisor)	

Date:- ……

DECLARATION

I hereby, declare that the work reported in this thesis entitled "**A Comparative Analysis On Capital Structure Management Of General Insurance Companies In Nepal (Special reference to PICL, SICL & NIL)"** submitted to Office of Dean, Research Department of Nepal Commerce Campus, New Baneshwor, Faculty of Management, T.U., is my original work done in the form of partial fulfillment of the requirements for the Masters of Business Studies (MBS) under the supervision of **Dr. Sushil Bhakta Mathema**, Head of Research Department of Nepal Commerce Campus, Minbhawan, Kathmandu.

October, 2012

…….

Bandana Lekhak

Researcher

Nepal Commerce Campus

T.U. Regd. No.: 5-1-61-8-2001

Campus Roll No: 1601/065

2nd year Exam Roll No: 250066

ACKNOWLEDGMENT

The present study "**A Comparative Analysis on Capital Structure Management of General Insurance Companies in Nepal (Special reference to PICL, SICL & NIL)"** has been prepared for the partial fulfillment of the requirement for Masters Degree of Business Studies. This research is conducted with the major objective of highlighting capital structure management between three insurance companies.

Many helpful hands are involved to support me for preparing this thesis. I would like to express my deep gratitude towards my supervisor **Dr. Sushil Bhakta Mathema** (Head, Research Department) for incisive and constant guidance's who have immensely contributed his valuable time despite of busy schedules for the preparation of this thesis.

I am indebted to all staff of insurance companies for providing necessary data, information and congenial environment for preparing this thesis. My special thanks goes to **Mr. Surendra Pd. Kushwaha (Senior Manager)** and **Mr. Prakash Thapa (Manager)**of Neco Insurance Ltd., **Mr. Subodh Lal Shrestha (Asst. General Manager)** and **Mr. Subhash Dixit (Dy. Manager)** of Sagarmatha Insurance Co. Ltd. and **Mr. Sudyumna Pd. Upadhyaya (Chief Executive Officer)** and **Mrs. Rohini Karmacharya (Asst. Manager)** of Premier Insurance Co. Ltd. for their constructive comments and suggestions for this thesis.

I would like to express heartily thanks towards all members of my family who provided regular inspiration and continuous contribution for my success and I would like to thanks my brother **Mr. Manish Lekhak** and my father **Mr. Ghan shyam Lekhak** (Insurance Surveyor) who always appreciated for my work and always inspire me. I would like to express my sincere thanks to all, who had supported me to complete this dissertation work.

Bandana Lekhak

Nepal Commerce Campus

Minbhawan, Kathmandu

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ABBREVIATIONS

B	=	Total value of Debt
B.S.	=	Bikram Sambat
D/E	=	Debt to Equity
EAT	=	Earning after Tax
EBIT	=	Earning before Interest and Tax
EBT	=	Earning Before Tax
EPS	=	Earning per share
I	=	Interest
Kd	=	Cost of Debt
Ke	=	Equity capitalization rate
Ke_L	=	Equity capitalization rate of levered firm
Ke_U	=	Equity capitalization rate of Unlevered firm
Ko	=	overall capitalization rate
Ko_U	=	overall capitalization rate of Levered firm
MBS	=	Master of business studies
NI	=	Net Income
NIL	=	Neco Insurance Limited
NOI	=	Net Operating Income
P.E.	=	Probable Error
PICL	=	Premier Insurance Company Limited
r	=	Correlation coefficient
RBS	=	Rastriya Beema Sansthan
ROA	=	Return on Assets
ROCE	=	Return on Capital Employed
ROE	=	Return on Equity
S	=	Total market value of equity
SHE	=	Share Holders Equity
SICL	=	Sagarmatha Insurance Company Limited

CHAPTER 1

INTRODUCTION

1.1 Introduction of the Study

Insurance is an effective means to save form loss and makes man certain and fearless regarding risks. People can reduce the financial loss with the help of insurance. Insurance works as double-wedged weapon. On one side, it provides financial securities against risk and on the other side it provides capital to the business houses. Nowadays, insurance has been not only a necessary thing but also a part and parcel of the business world. In the context, the importance and necessity of insurance business in Nepal cannot be ignored.

Nepal is one of the undeveloped countries of the world. Most of the people live on poverty. Economic, Social accident makes them unbalanced. In the regard insurance is one way to managing low income level. In this regard what is the situation of present insurance companies in Nepal is essential to study.

Capital structure holds major place in financial management. It is one of the most complex areas of financial decision making due to its interrelationship with other financial decision variables. Capital structure means the mix proportion of capital in the firm. It refers to the proportion of debt and equity capital. A perfect balance between debt and equity is required to ensure the tradeoff between risk and return to share holders. This must be optimal.

Optimal capital structure means the capital structure having reasonable proportion of the debt and equity. It helps the company to minimize the cost and maximize the value of the firm. An optimal financial structure makes better use of society's fund of capital resources and thus it increases the total wealth of the society. Use of optimal capital structure management in least developed country like Nepal will get chance to improve their economy.

The term capital structure denotes the long-term funds of the firm. All of the items on one side of liabilities of balance sheet excluding current liabilities are source of capital. The source of financing are normally grouped into debt and equity, which normally characterized the firm's capital structure. Debt capital includes all long-term borrowings, while equity capital consists of long term fund provided by firm's owner, the stakeholders.

In order to achieve the firm's goal of wealth maximization the financial manager must be able to assess the firm's capital structure and understand its relationship to risk, return and the value of the firm. Thus it is being increasing realized that a company should plan its appropriate capital structure maximize the use of funds and able to adopt more easily in changing conditions.

In maximizing the capital the financial manager's goal is to wealth maximization. Capital structure management is the key factor for short term as well as intermediate term decision-making in today's dynamic and volatile environment.

So, the study is based on the comparative evolution of capital structure management of three insurance companies. The study of these three companies of similar nature tries to examine the appropriateness of capital structure employed by these companies.

1.2 Background of Nepalese insurance sector

The world is full of risk and uncertainty. Human life and property are always at risk and uncertainty. In today's world of uncertainty a sense of security is not only needed but it is an effective means to save from loss and makes man certain and fearless regarding the risk. In this context the idea of risk management and idea of insurance is emerged. Insurance plays the significant role in risk management. Insurance is devised as financial security against risk.

M. N. Mishra Defines insurance as "a consisting one party (the insurers) agrees to pay to the other party (the insured) or his beneficiary, a certain sum on a given contingency (the risk) against which is sought."

Insurance may be defined as a cooperative device to spread the loss caused by a particular risk over a number of persons who are exposed to it and who agree to insure themselves against that risk. It is a social device, which combines the risks of individual into group, using funds contributed by members of the group to pay for losses. Thus main function of insurance companies is to collect premium and mobilize such collected funds into various sectors of economy with an organized and institutional manner.

There is no long history of insurance business in Nepal. The necessity of formal insurance was not realized before the revolution of 2007 B.S. At that time people's life was mostly dependent on agriculture. There were no big industries and the country had no link with

outer world. The sign of modern industrialization could be seen only at the end of Rana rule. Some modern factories like jute mills, matches factories and sugar mills were established in Biratnagar. At that time, some persons travelling in India used to take insurance in Indian insurance companies. Insurance company used to come to Nepal to make insurance of Nepalese people.

In the financial structure of any nation, insurance companies constitute one of the most important components. They play two roles in the economy i.e. safeguarding against the risk of loss for poverty, life and accumulation of resources by collecting long term funds.

The parental role of the development of insurance in Nepal goes to Nepal Bank Limited (NBL). Transport of goods and insurance Company (Nepal Mal Cahlani Tatha Beema Company) was Established under Control of NBL in 2004 B.S. the transport of goods and insurance company used to release the goods from the customs of such goods to the god own banks or parties after receiving it. The name of this company was changed into Nepal Insurance and Transport in 2016 B.S. Again in 2048 B.S. the name of this company was changed into Nepal Insurance Company Ltd. which is the oldest insurance company in Nepal.

The role of Indian Insurance Companies in Development of Insurance Corporation on India, Oriental Insurance Company Limited and National Insurance Company has remarkable contribution in the field of insurance in Nepal. The credit of the development of modern insurance business goes to Rastriya Beema Sansthan which was established in 2024 (B.S.) with carrying two main objectives of mobilizing the internal resources and capital for the economic development of the country and stopping the burden of the foreign currency. Rastriya Beema Sansthan was granted to make life, non-life insurance and re-insurance business. This grand institution has played crucial role in the development of insurance Business.

Furthermore, to manage and regulate insurance business in Nepal the insurance Act 2025 (B.S) and Rastriya Beema Sansthan Act 2025 (B.S.) were enacted. Under the provision of this Act, an insurance board was established under the ministry of Finance in 2025 (B.S.) and it made the provision of permission to be taken for insurance business from this Board. In addition to this, the Act made the provision to resister the insurance agents, to submit the account of the insurers in life insurance, and to claim over the insured amount by the wised persons or his heir. It also started the supervision and the control of the insurance

companies. In this way, Insurance Act 2025 (B.S.) has created conductive environment of flourish public as well as private insurance business in Nepal. At present the insurance Act 2049, the Insurance Rules 2049 and the Rastriya Beema Sansthan Act 2025 are in use to regulate managed and control the Insurance Business in Nepal.

Now the government has adopted liberal economic policy, as a result many insurance companies are established. The introduction of these Acts and rules there are 25 insurance companies functioning in Nepal. There is one insurance company providing both life and non-life insurance service, eight insurance companies are providing only life insurance service and sixteen insurance companies are providing non-life insurance service. Which are mentioned below:

1.2.1 Insurance Companies by Types

A. Insurance Companies Providing Both Life and Non-Life Insurance Services:-

S.N.	Name of Insurance Company	Date of Establishment
1.	Rastriya Beema Sansthan	2024 B.S.

B. Insurance Companies Providing only Life Insurance Services:-

1.	National Life Insurance Company Limited.	2044 B.S.
2.	Life Insurance Corporation (Nepal) Limited.	2058 B.S.
3.	Nepal Life Insurance Company Limited.	2058 B.S.
4.	American Life Insurance Company (ALICO) Limited.	2058 B.S.
5.	Asian Life Insurance Company Limited.	2064 B.S.
6.	Surya Life Insurance Company Limited.	2064 B.S.
7.	Gurans Life Insurance Company Limited.	2064 B.S.

8.	Prime Life Insurance Company Limited.	2064 B.S.

C. Insurance Company Providing Only Non-Life Insurance Services:-

1.	Nepal Insurance Company Limited.	2004 B.S.
2.	The Oriental Insurance Company Limited.	2024 B.S.
3.	National Insurance Company Limited.	2030 B.S.
4.	Himalayan General Insurance Company Limited.	2050 B.S.
5.	United Insurance Company (Nepal) Limited.	2050 B.S.
6.	**Premier Insurance Company (Nepal) Limited.**	**2051 B.S. (12th May 1994)**
7.	Everest Insurance Company Limited.	2051 B.S.
8.	**Neco Insurance Limited.**	**17th Jestha 2053 (30th May, 1996)**
9.	**Sagarmatha Insurance Company Limited.**	**12th Ashad, 2053 (26th June, 1996)**
10.	Alliance Insurance Company Limited.	2053 B.S.
11.	N.B. Insurance Company Limited.	2057 B.S.
12.	Prudential Insurance Company Limited.	2059 B.S.
13.	Shikhar Insurance Company Limited.	2061 B.S.
14.	Lumbini General Insurance Company Limited.	2062 B.S.
15.	Siddhartha Insurance Limited.	2062 B.S.
16.	NLG Insurance Company Limited.	2062 B.S

Nepalese insurance business are facing the problems of lack of sufficient number of industries, limited market of opportunities, low per capita income, lack of knowledge insurance, lack of profitable investment opportunities poses a serious threat to the insurance business in Nepal. The competition in the insurance business has turned to be more intense. Moreover, increasing violence and terrorism has been threatening the insurance business. The establishment of new industries and factories, growing number of trading companies, growing awareness of people, government's interest in insurance, provision of compulsory insurance. Provision of insurance board and enactment of laws and rules regarding insurance business is the positive indicator of the good future prospect of insurance business in Nepal.

1.2.2 Development of Insurance

Today's modern form of insurance is not the effort of fortnight. It has crossed a long series of time to develop insurance from ancient practices to modern insurance practices. From the very beginning of society, men have been following the way to share loss and profit, suffering and prosperity mutually with one another. The concept of insurance is originated very early in Greece. There is a word "Yogakshema" in Rig-Veda, Which means security. About three thousand years ago, racial insurance was in existence in the Arya community of India. But before four century B.C. there was the use of Bottomary Bank under the marine insurance in Greece. Existence of life annuity was found during the period of roman emperor. At first, Church of England used to Make Religious guild. Later on forming the merchant guild, started to give protections to the members further, later on craft guild, began to work as subsidiary of merchant's guild. In this way the concept of insurance is evolved. The development of modern formal insurance can be described in the following phases.

a. First phase: Emergence of marine Insurance

After the emergence of the concept of insurance, it was most commonly used for marine insurance. So, marine insurance is the first modern form of insurance in the history of insurance. In 1300 A.D. the first insurance contract, called 'polizza' was made in Italy. Later on the word 'policy' was developed from 'polizza'. The concept of marine insurance

was commonly used in Lombard of Italy and in Venice in 14th century. In fact, the Lombard of Northern Italy had main role in bringing the international extension of marine insurance in England. Latter the Jewish of Lombard were banished, then they settled in different countries of Europe. The name of street, "Lombard Street" of London was named after the mane of Lombard. At that time this street was called the central point of the marine insurance.

The significant role of Lloyd institution for the development of insurance cannot be ignored. The under writers who took the marine risk used to carry out the work of marine insurance, meeting personally in the coffee house of Edberd Lioyd in the tower of street of England. Slowly the coffee house was successful to introduce itself as a center of marine insurance. The Lioyd institutions established in1771 is the first institution to make formal marine insurance. Till now, this institution is the one of the most popular insurance company in the world.

b. Second phase: development of life insurance

After the development of marine insurance, people used the concept of insurance to provide security of their lives. To take about the modern life insurance, by an associate 16 persons, the first life insurance policy of the world was issued in the name of a person named 'William Gybbons' in 1583 A.D. it is recorded that insurance policy was issued for 1 year. An astronomer named 'Admand Heley' submitted a 'Moratality Table' in 1693 A.D. to the Royal society. This mortality table was useful tool for calculating insured amount. But the first life insurance insured amount technology on the basic data.

In 1774 A.D the foundation of the modern insurance was created by passing the life insurance Act. There after different laws enacted to remove the defect that came to it on the basis of experience. With the cause of the difficulties that came to the business, many companies were closed and some of them went and mixing or merging with another insurance company. There is no controversy that the Life Insurance Act 1870 A.D was passed to control the operation of the life insurance business for protection of the customers. Before the beginning of the 19th century many life were that already established in the world. We find that life insurance business in our neighboring country India had started with the establishment of Mutual Association. In 1971, both the life and non life were nationalized in India, as a result, Life Insurance Corporation for Life Insurance and

the General insurance Company Ltd. For non-life insurance were established. During the reign of Elizabeth 1st the life insurance used to be effected for only one year. After one year, if it was not renewed, that insurance automatically used to be cancelled. But the job of effecting long term insurance, started from 18th century has been increased continuously.

c. Third phase: emergence of the fire insurance

In the history of insurance, the fire insurance comes after the life insurance. However there is some controversy about it. In the opinion of some people, the concept of the fire insurance had come after marine insurance and then only after about two hundred years, the idea of life insurance was communicated. The function of the fire insurance has done in 14th century. The beginning of the fire insurance for the first time can be found in the municipality of Hamberg in Germany in about 13th century, it is said that after the birth of life insurance was developed.

In 1666 A.D after the fierce fire incident, many buildings were turned into ash in England. It is known from istory of insurance that many people were in difficulties. So, the fire insurance was introduced with the main objective of providing the financial protection to the people to save from risk and ruin. 1680 A.D Dr. Nichloas Barbon has started the first business related with fire insurance in England. The office of Barbon was called fire office, later named as phoenix. In 1782, Phoenix insurance company was established with the development of fire insurance today many people, industry and businessmen are the breathing the air of peace.

d. Fourth phase: practice of Miscellaneous Insurance

After the fire insurance, many other types of insurance have come in use. Thus, by such insurance policies man is trying to be protected from many types of risks. Under the miscellaneous insurance, fidelity guarantee insurance started from 1848, personal accident insurance from 1880, liability insurance from 1875, public liability insurance from 1877, burglary and house breaking insurance from 1903, motor insurance from 1911, and aviation insurance were came in practice, earthquake insurance, the vocal of the male singer and female singer, model beauty as miscellaneous insurance.

1.2.3 Types of insurance

Insurance has been the most effective and strongest to save people's property. It makes the security for the payment of insured amount to those who have made life and non-life insurance. Nowadays, insurance has become the pillar of alertness, courage and eagerness to develop the life and living standard of common people, industrialists and traders of the world. Nowadays, various types of insurance id developed, which can be classified in following ways:-

A. From the business point of view

From the business point of view, there are following types of insurance:-

a. Life insurance:

Life insurance provides a protection for two major contingencies. A man insures his life either to make provision for old age when his earning capacity deteriorates or for leaving a certain sum for his dependents when he dies, which may happen before he is able to say and accumulated sufficient amount. Life insurance has several business and financial advantage. In life insurance policy it is provided that the insured interest amount is to become payable in the happening of death or in some cases on the attainment of certain age, whichever is earlier. Only the men having and insurance interest in the proposed life can be obtaining policy on it. The concept of life insurance is based on pooling the risks of many to a group, accumulation a fund by contribution from the members of the group and paying from the losses of those who suffer loss.

Life insurance is a plan of compulsory saving and there will be round development of the nation from the premium paid for that and the life insurance plan is helping to control the inflation. Because, there are the factors of protection and investment in life insurance, it has gained much more popularity. Under this insurance, if the insured remains alive, he himself, get the payment of insured amount, if he is dead, his wished person, if it is not wished or the wished person is also dead; the nearest person gets the payment under the policy as per law.

b. Non-Life Insurance:

Insurance, other than life and social insurance are called non-life or general insurance. The subject matter affected under it is in nature of property. The insurance company provides

indemnity to the insured. Such compensation should be based on the actual value. This type of insurance include marine, fire and miscellaneous types of insurance.

i. **Marine insurance:**

Ships sailing of sea are exposed to various types of risks. They may be collide against one-another, spring a leak, caught by fire, captured by enemies an seized by pirates. The ship and cargo may be lost in such a case and tremendous loss may be caused to its owners. Such risks if not covered will greatly discourage the international trade, which is mostly sea borne. That is why the marine insurance is considered to be the land mind of modern international trade, which is indispensable auxiliary.

ii. **Fire Insurance:**

The insurance done against the risk of fire is known as fire insurance. Fire insurance policy may be taken on residential houses or on Factories and business premises. Under fire insurance policy, if any property loses by fire, the insured amount would pay as indemnity. The property should be its full market value. The claim under the fire insurance policy is determined on the basis of present value of the property.

iii. Miscellaneous insurance:

Miscellaneous insurance business includes the various types of insurance business such as Aviation insurance, Motor insurance, Cash in transit insurance, Workmen's complementation Insurance, Burglary and House breaking insurance, Public-insurance, Cattle insurance, Medical aid scheme and so on.

c. Social Insurance:

In modern age, the social insurance has an important place; the objective of this insurance is to provide the maximum social benefit to the society. This type of insurance is specially, useful for the worker class and the owners of factories. This sector processes high risk because the workers work in the mill and factories, from it, the workers, officials and owners also many suffers loss. Social insurance provides the economic protection both to the official and owners. The main examples of social insurance are workmen's compensation insurance, sickness insurance, pension insurance, maternity insurance, and unemployment insurance etc. Having regarded to the importance of the insurance, in every developed country, this insurance has been generally made compulsory. This insurance was

started from England. The burden of expenses of government and the owner of the factories have bear the most of the portion of premium.

1.3 Introduction of Sample Insurance Company

1.3.1 Premier Insurance Company Ltd.

This insurance company was incorporated on with insurance board on 2048 and registered as in insurance of Nepal on 29th of Baisakh, 2051 (12th may 1994). Premier Insurance Company (Nepal) Limited has emerged as a renowned general insurance company of the second generation. The company has earned a reputation in the local and international insurance and reinsurance sectors as well for its professionalism and services. It provides various types of facilities of non-life insurance business from 2051.

The company has its head office in Narayan Chaur, Naxal, Kathmandu. It has altogether 5 branches and 2 sub branches in Nepal. It has established four regional offices. The Birgunj office covers southern part of the country. The Narayangarth and Pokhara offices cover the western part of the country while the Biratnagar office covers the eastern region of Nepal. New offices in other parts of the country are scheduled to be opened soon.

Today Premier Insurance has the best and the most secure reinsurance arrangements to cover all types of claim settlements. As part of the company's efforts to serve people countrywide. To meet the growing needs of today's world Premier Insurance has been providing following services:

- Fire Insurance
- Burglary/House breaking Insurance
- Motor Insurance
- Private Vehicle Insurance
- Commercial Vehicle Insurance
- Personal Accident Insurance
- Marine(Cargo) Insurance
- Contractor's all risks Insurance
- Workmen Compensation Insurance
- Overseas Medi claim Insurance

- Fidelity guarantee Insurance
- Cash in Transit Insurance
- Comprehensive Household Insurance
- Public liability Insurance
- Hospitalization and Medical Insurance
- Loss of Profits Insurance

1.3.2 Sagarmatha Insurance company Limited

This is a modern company organized in 2051 but started its operation in year 12th of Ashad, 2053 (26th June, 1996) with Nepali and foreign promoters. Sagarmatha Insurance Co. Ltd. has been promoted by the prominent entrepreneurs and leading industrial Groups - Salt Trading Corporation, Golchha Organization, Jyoti Group, MC Group, Narayani National Finance Ltd. Nepal Construction and Engineering Corporation and other promising entrepreneurs. It is the first Foreign Joint Venture Company of Nepal in General Insurance, with Joint Venture Partner Ceylinco Insurance Co. Ltd of Sri Lanka.

Sagarmatha Insurance Co. Ltd. has an Authorized Capital of Rs.200 million, Issued Capital 150 Million and Paid up Capital of Rs. 129.1 million, thus fully authorized by Insurance Board of Nepal complying with Insurance Act, 2049.

The Company is rendering services from its Corporate office "Surakshan" Bhawan, Bhagwati Marg, Naxal, Kathmandu and 17 Branches all over Nepal, including 4 branches inside Kathmandu valley and 6 branches outside the valley. The company has its head office in Kamaladi, Kathmandu. It has 7 Liaison offices. The main objective of the company is to provide wide range of covers against physical damage/losses under insurance products and policies, which are as follows.

- Fire Insurance
- Consequential Loss Insurance
- Theft Insurance
- Marine Insurance
- Motor Insurance
- Contractors All Risks Insurance

- Fidelity Guarantee Insurance
- All Risks Insurance
- Public Liability Insurance
- Aviation Insurance
- Machinery / Plant / Equipment & Cpm / Ear Insurance
- Personal Accident / Group Personal Accident Insurance
- Cash In Transit / Cash In Safe Insurance
- Hospital And Surgical Expenses Insurance
- Workmen's Compensation Insurance

1.3.3 Neco Insurance Ltd.

It is also a major insurer operating in Nepalese insurance industry. It was incorporated as a Public Limited Company on 1st of Poush 2051 (16th December 1994). The Company started its General Insurance business on 17th of Jestha 2053 (30th May, 1996) when the company was provided the License by Beema Samiti (Insurance Board) to transact all types of Non-Life (General) Insurance in Nepal with authorized capital of 200 million and the issued capital 100 million of which 50 million was fully paid up to fiscal year 2063/64.The company has its head office in 7th floor, Star Mall, Putalisadak, Kathmandu, presently it has 11 branches at different places in Nepal, 1 sub branch in Pokhara and 2 contact offices at Dang and Dhangadhi.

Regarding the insurance, it is involved in to non-life insurance business, which includes,

- Engineering Insurance
- Personal and group accidental Insurance
- Fire Insurance
- Motor Insurance
- Aviation Insurance
- Burglary and household Insurance
- Cash Insurance
- Marine Insurance
- Travel medical and hospitalization Insurance
- Contractor’s all risk Insurance
- Mountaineering and trekking Insurance etc.

1.4 Statement of the problem

There are number of constraints at hinder the development of insurance in Nepal. Lack of sufficient number of industries, limited market opportunities, low per capita income, and lack of knowledge of insurance, lack of profitable investment opportunities poses a serious threat to the insurance business in Nepal.

The claim procedure is very complicated, it is very difficult to get the valid compensation timely, and the settlement of claim in majority of insurance company is slow. The area of non-life insurance is decreasing; however, new insurance companies have been established in the market. These parties, however, lack the trust of people and fluctuations transition is major problems often faced by the companies. Due to lack of review and analysis of capital structure management, the company may suffer and face bankruptcy in the future.

Primary Capital structure decision affects the overall cost of capital, value of firm and earning per share. It affects profitability, control position, management attitude, financial flexibility and premium in the long run. The main issue of study lies on the issue of capital structure used by Premier Insurance Co. (Nepal) Ltd., Sagarmatha Insurance Co. Ltd. and Neco Insurance Ltd. It tries to examine the appropriateness of capital structure used by the companies' obstacles faced by the companies in maintaining the optimal capital structure. In this context capital structure decision is being a challenging task for them.

1.5 Objectives of the study

The economic development of any country depends upon the effective mobilization of the accumulation of capital. The study of capital structure management helps to maintain and improve or create the perfect situations.

The basic objective of this study is to analyze the capital structure of Premier Insurance Co. (Nepal) Ltd., Sagarmatha Insurance Co. Ltd., and Neco Insurance Ltd. using the data for last five years. The general objectives of this study are as follows.

- To study debt servicing capacity.
- To test the relationship between cost of equity and capital structure.
- To find out the effect of capital structure on profitability.
- To analyze the related variables of capital structure such as debt equity ratio, cost of capital, earning per share and market per share.

- To examine the financial position, financial strengths and weakness of these insurance companies.
- To draw conclusion and recommendation based on the findings of the analysis.

1.6 Significance of the Study

As we know that capital structure management plays a vital role in each and every sector. Without effective capital structure management, an insurance sector cannot achieve its objectives.

Most of capital structure analysis studies have been conducted on manufacturing firms and banking sector. So this study will also highlight the importance of capital about three selected insurance companies. This study will provide suggestion framework to the insurance sector about the way of determining optimal capital structure. That will beneficial to the individual company as well as whole sector in long run.

This study uses various financial and statistical tools to examine the capital structure of the companies. The study evaluates the financial interims of capital structure, which helps the concerned insurance companies to formulate strategies to face the interesting competition and to achieve the target objectives.

This study will support the different areas like students, investors, financial managers, policy makers and financing agencies etc. by providing valuable information about the subject of the study.

1.7 Limitations of the Study

The study covers the data and the information only last five years i.e. fiscal year 2064/65 to 2068/069.

This research work has some permanent boundary; besides the boundary, concentration about the topic is not diversified. This study is for partial fulfillment of Masters of Business Studies (MBS). Following factors will be the main limitation of the study:

- Data availability.
- The analysis period covers only five years data.
- It focuses on capital structure and does not cover other aspect of the analysis.

- Only limited primary data will used in the study in forms of personal interview and questionnaire method.
- Study being heavily dependent on secondary data provided by the three selected companies will be used.
- This study is limited to the related variables affecting capital structure of the selected three insurance companies.
- Time and resource constraint.

1.8 Organization of the Study

This study has been organized into five chapters. The titles of each of these chapters are summarized and the contents of each of these chapters of this study are briefly mentioned below.

Chapter I: Introduction
Chapter II: Review of Literature
Chapter III: Research Methodology
Chapter IV: Data Presentation and Analysis
Chapter V: Summary, conclusion and Recommendations

The first chapter deals with the subject matter consisting introduction, background of the study, introduction of sample company, statement of the problem, objectives of the study, significance of the study, limitations of the study and organization of the study.

The second chapter is concerned with review of literature. It includes review of books, review of articles, review of reports, review of related journals and review of thesis.

The third chapter is concerned with research methodology. It includes introduction, research design, population and sample, data collection procedure and methods of data analysis.

The fourth chapter deals with analysis and interpretation of data by using statistical and financial methods described in chapter three.

Lastly, chapter five deals with summary, findings, conclusion and recommendations of the study. The bibliography and appendix are incorporated at the end of the study.

CHAPTER 2

REVIEW OF LITERATURE

2.1 Introduction

The purpose of reviewing the literature is to develop some expertise in one's area, to see what new contributions can be made, and to receive some ideas for developing a research design. Thus, the previous studies cannot be ignored because they provide the foundation to the present studies cannot be ignored because they provide the foundation to the present study. It will give guideline to go further depth of the 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 above, it is clear that the purpose of literature review is to find out what studies have been conducted in one's chosen field of study, and what remains to be done. Under this chapter, different books, articles, research and thesis are well reviewed. This chapter is basically concerned with review of literature relevant to capital structure analysis of insurance companies of Nepal. This chapter has been divided into three sections.

1. Theoretical Review
2. Review of Article and Journal
3. Review of Previous Research

2.2 Theoretical Review

In this section theoretical concept regarding the theories of capital structure are well reviewed. This makes clear about conceptual foundation of this study.

2.3 Concept of capital structure

"Capital Structure is the permanent financing of the firm represented primarily by long-term debt, preferred stock and common equity but excluding of all short term-credit" (Weston and Brigham,1982:555).

Capital Structure is composition of debt and equity that comprises a firm's financially of its assets. In accounting terminology, it is simply difference between total assets and total liabilities. But in financial terminology the term capital includes equity as well as debt

capital. Equity capital contains Capital generated from issuing common stock, preferred stock and retained earnings. Debt capital may be the composition of payable stock and retained earnings. Debt capital may be the composition of payable bearing no interest rate, short-term bonds, long term bond, debentures and term loans.

Capital is concerned with the analyzing the capital composition of the firm. It is considered as the mix of long term source of funds. Debt, share and equity are considered as the mix of long-term source fund. A firm must concentrate in its proportion. A firm can raise funds by issuing various types of financial tools. Firm can raise funds either by debt capital or by share capital. Debt capital has several advantages and disadvantages. Debt holders are also known as creditors. They receive interest as their return from the company where they invested capital. Interest is tax deductible which lower the effective cost of debt, debenture holders who are the actual owners of the firm, but preference shareholders have preference rights to get return from the company then the equity shareholders. So equity shareholders, receive the remaining portion of net return after paying the preference dividend to preference shareholders, which is predetermined.

"the capital structure is a combination of long-term debt and equity; which includes preference stock, common stock and long-term debts as well as current liabilities. It is a part of financial structure. If current liabilities are removed from it, we get capital structure" (Iqwal, 1979:210).

Capital structure is concerned with the analyzing the capital composition of the company. In the word of Weston Brigham, Capital Structure is the permanent financing of the firm, represented primarily by long term debt, preferred stock and common stock but excluding all short-term credit. The capital structure plays vital role in the theory of financial management. It is also known as financial structure, plan or leverage.

A sound or appropriate capital structure should have following features (Pandey, 1990:611)

Risk: The use of excessive debt threatens the solvency of the company. To the point debt does not add significant risk it should be used other its use should be avoided.

Return: The capital structure of a company should be most advantageous. Subject to other consideration, it should generate maximum returns to shareholders without adding additional cost to them.

Flexibility: The capital structure should be flexible to adapt its capital structure with minimum cost and delay in the changing situation and it should be able to generate funds whenever it needs to finance.

Capacity : The debt capacity should not be exceed and should have capacity to generate future cash flows enough to pay creditors fixed charge and principal. The debt capacity of a company depends on its ability to generate future cash flows.

Control: Control power is the one of the most concerned part for the management. Management always wants to maintain control over the firm. It should involve minimum risk of control of company.

2.3.1 Optimal Capital Structure

Optimal Capital Structure can be defined as the mix of debt and equity which will maximize the market value of the company, i.e. aggregate value of claims of ownership interest represented as the credit side of balance sheet. "The optimal capital structure is the mix of finance in which the market value of per share is maximum or the average cost of capital is minimum. The value will be maximized or the cost will be minimum when the marginal cost of each source of fund is the same. An optimum capital structure would be obtained at that combination of debt and equity that maximizes the total value of firm or minimized the weighted average cost of capital" (Hampton, 198:33).

Optimal capital structure can be properly defined as that combination of debt and equity that attains the stated managerial goals, maximization of the firm's market value and which minimizes the firm's cost of capital. "The optimal capital structure strikes a balance between the risks and return and thus maximizes the price of the stock. A firm has certain structure of assets, which offers net operating incomes of given size and quality, and gives certain structure of rates in the market value of the firm's security will be higher (or the cost of capital will be lower than at any other degree of leverage" (Soloman, 1983:92).

Optimal capital structure should balance between risk and return to equity shareholders. It helps to maximize return on equity capital without increasing risk significantly optimal capital structure helps to increase in flexibility and maintain existing shareholders control power. Optimal capital structure should have following features:

- **Minimum cost of capital:** optimal capital structure minimizes the cost of capital of the firm. As a result shareholder's return and value is maximized at optimal capital structure.
- **Risk:** optimal capital structure should be less risky. The use of excessive debt threatens the solvency of the company. Company should use debt to that extent up to which debt does not add significant risk, otherwise its use should be avoided.
- **Flexibility:** the capital structure should be flexible. Flexibility in capital structure helps to grab market opportunity as company can raise required funds whenever it is needed for profitable investment opportunities. It also helps to reduce costs (cost of debt and preferred stock) when funds raised from debt and preferred stock are no more required in the business.
- **Capacity:** the capital structure should be determined within the debt capacity of company, and this capacity should not be exceeded. The debt capacity of a company depends on its ability to generate future cash flows. It should have enough cash to pay creditors fixed charges and principal sum.
- **Control:** Control power is the one of the most concerned part for the management. Management always wants to maintain control over a firm. The capital structure should involve minimum risk of loss of control of the company. Issue of excess equity shares to new investors may bring threats to the control by existing manager.

2.3.2 Factors Affecting Capital Structure

Capital structure of different types of firm's varies widely. "There is no rigid formula to explain the temperaments. Managing directives or major shareholders may often be the major determining factor at any given time. The availability of and level of interest rates and expectation as to future money availability and whether interest rate are through likely to raise or fall will be the important factors" (Ogley. 1981:95).

Factors affecting capital structure revolve principally around the adequacy and stability of earnings; the greater the stability of earnings the higher may be the ratio of bonds to stock in the capital structure also. After a brief overview of the capital structure management we can point out the following factor which affects the capital structure of any organization.

a) Market Condition

Conditions in the stock and bond market undergo both long and short-term changes, which can an important bearing on a firm's optimum capital structure. Stocks and bond market conditions do influence the type of securities used for a given financing.

b) Cost of Capital

Debt is usually least expensive because there is tax shielded saving on interest whereas the use of common cost of capital should be evaluated and criteria should be minimize the overall cost of capital or to maximize the value of firm" (Pandey, 1999:264)

c) Firm's Internal Conditions

The internal condition of a company also plays an important role in capital structure. According to Brigham's, suppose a firm has just successfully completed research and development program and projects are not yet anticipated by investors and hence are not reflected in the price of the stock. It would prefer to finance with debt until the higher earnings materialize and reflected in the stock price, at which time it want to sell an issue of common stock, retire the debt and return to its target capital structure.

d) Growth Rate

Faster growing firm's must rely more heavily on external capital. Rapidly growing firms tends to use somewhat more debt than companies of slower growth.

e) Stability of Sales

Stability, adequacy, volume and predictability of earnings determine the capital structure. The firm's with stables sales would have high ratio of funded debt because they will not face difficulty in meeting their fixed commitments. The companies with declining sales not employ debt or preference share capital; because they would not like to be burdened wait fixed charges.

f) Cash Flow Ability of a Company

A firm is conservative financed if it is able to serve fixed charges under any reasonable predictable adverse conditions. "It is not the average cash inflows but the yearly cash inflow which is important to determine the debt capacity of a company. Fixed financial

obligations must be meet when due, not on an average and not in most years but always" (Johnson, 1973:216).

g) Floatation Cost

Floatation costs are incurred only when the funds are raised. The cost of floating a debt is less than cost of floating an equity issue. This may encourage a company to use debt than issue equity shares.

h) Assets Structure

Firm's whose assets are suitable as securities for loans tends to use debt heavily than the firm's having no suitable assets structure necessary for pledging security for loan. According to J. Batty, "Borrowed Capital should not exceed a reasonable percentage pf fixed assets" (Batty, 1963: 159).

i) Interest Rate level

This affects choice of securities to be offered investors; high interest rate makes financing costly. When funds are obtained easily and cheaply, there is greatly attitude for choice of type of securities to be used.

j) Nature of Industry and Capital Requirements

The pattern of capital structure of the industry of which the firm is a part also very important factor in determining the capital structure of the firm. The needed and financial conditions of the company have to be considered. If growth is only moderate, a reinvestment of earning will serve the purpose.

k) Control

The choice of the capital structure decision depends upon the management control position. If the management has voting control over company then it prefers to use debt whereas if the management is not concern about voting control it may decided to use equity then to use debt.

l) Flexibility

The company's desired for flexibility in future financing decisions also effects the capital structure of the company. Therefore the company should compare the benefits and costs of attaining the desired degree of flexibility and balance them properly.

m) Profitability

The firm's with very high rates of return of investment use relatively little debt. Their high rates of return enable them to do most their financing with retained earnings.

n) Taxes

Interest is deductible expenses while dividends are not deductible. Hence the higher a firm's tax rate, the greater advantages in using debt.

o) Leverage Effects

The company with the high level of earnings before interest and taxes can make a profitable use of the high degree of leverage to increase return of the shareholders equity.

2.3.3 Capital Structure Decision

Capital Structure is considered as the mix of debt and equity and to operate in long run prospect. A firm must concentrate in its operation. Investors and creditors being the key suppliers of the capital, they hold greater degree of risk and hence have claims over firm's assets and cash flows. Similarly debt holders are also a source of financing fund and they have risk considering firm's cash flows is uncertain and there is probability that it may default in its obligations to pay off interest and principles. In other hand, if a firm issue preference share, those shareholders even though have priority in payment of dividends before common shareholders but after the debt holders. Since the percentage of dividend is fixed as the percentage of interest to debt, it is preferably paid off only after interest payment. Common shareholders as are the owner of the firms they are paid from cash remaining after all payment is being made. Since the common preference a share i.e. equity fluctuates in the market more than the preference share and debt, there is more risk.

The required rate of return expected by investor according to their risk is cost of capital. Therefore, a firm should try to obtain necessary fund at low cost. This cost of capital is fully dependent upon the proportion of debt and equity, i.e. financial leverage, which is

actually the capital structure used by the firm. Financing decision of a firm, as the other financial decision, is concerned with the shareholders wealth maximization. As capital structure refers to the proportion of debt and equity, a choice in proportion is actually financial decision in case to fulfill investment requirement. Therefore, it is a wise decision to select such financing mix, which maximizes shareholders wealth.

One of the financial manager's principle goals is to maximize the value of the firm's securities. For this purpose firm should select a financial mix or leverage, which will help in achieving the object of financial management with a view a to maximize the value of share. In order to attain this business goal, firm should select an appropriate structure.

The capital structure decision affects the overall cost of capital, total value of the firm and earning per share. Therefore, it should be well planned. It aims to maximize value of firm and earning per share by minimizing cost of capital would be obtained at the combination of debt and equity that maximizes the total value of the firm.

"The capital structure is the composition of the debt and equity securities that make up the firm's financing of its assets. Both debt and equity securities are used in most large corporations. The choice of the amount of the debt and equity is made after a comparison on certain characteristics of each kinds security of internal factors related to the firm's operations and of external factor that can affect the firm" (Soloman, 1989:115)

The capital structure is rational judicious mix of debt, preference stock and common stock. Therefore, capital structure depends upon the efficiency of management in the rational estimation of capital mix. "There are four dimensional lists when thinking about capital structure decision" (Weston and Brigham, 1978:451).

a) Taxes

If company is the taxpaying and increases in leverage reduce the income tax paid by the company and increase in the tax paid by the investor. If the company has large accumulated loss, an increase in increase in leverage cannot reduce corporate tax, but does increase personal taxes.

b) Business Risk

With or without bankruptcy, financial distress is costly. Other things equal, distress is more likely for the firm with high business risk. That is why firm's generally issues debt.

c) Assets Type

The costs of distress are likely to be greater for firm's whose value depends on growth opportunity of intangible assets. These firm's are more likely to go for profitable opportunities and default occurs, their assets may be eroding rapidly. Hence, firm's whose assets are weighted forward intangible assets should borrow significantly less on average their firm's holding assets you can kick.

d) Financial Slack

Financial slack is most valuable to firms that have sample positive net present value growth opportunity. That is another reason why growth companies usually aspire to conservative capital structure.

2.3.4 Assumption and Definitions

In order to have better understanding of capital structure theory, the researcher makes following assumptions. These are (Van Horne, 2000:252)

- There is no corporate or personal tax.
- There are no bankruptcy costs.
- The ratio of debt to equity for a firm is changed by issuing debt to repurchase stock to issuing stock play off debt.
- The firm has a policy of paying 100% of its earning in dividends. Thus we abstract from the dividend decision.
- The expected value of the subjective probability distributions of expected future operating earnings for each company are the same for all investors in the markets.
- The operating income of the firm is not expected to grow the expected earning for all futures periods are same as present operating earnings.
- Two types of capital are employed: - Debt and Equity.
- The firm is expected to continue indefinitely.

We can find out cost of capital and their expected values by using following formula:

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

$$\frac{EBIT - I}{EBT}$$

$$\text{Cost of Equity (Ke)} = \frac{}{V - B} = \frac{}{S}$$

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

$$\text{Overall Cost of Capital (Ko)} = \frac{EBIT}{V}$$

The overall cost of capital I the weighted average cost of equity and cost debt.

Thus,

$$Ko = Kd \frac{D}{V} + Ke \frac{S}{V}$$

The value of the firm is combination value of debt capital and equity capital. So,

$V = D + S$

$$\text{Or, } \frac{EBIT}{Ko}$$

2.3.5 Theories of Capital Structure

The capital structure is a combination of long-term debt equity; it is a part of financial structure thus, the financial decision of a firm relates to choice of proportion of debt and equity to finance the investment requirement a proper balance between risk and return to shareholders. However, it can be expected that it the capital structure decision effect the total value of the firm, a firm should selected such a financing mix, which maximize the shareholders wealth. The optimal capital structure and its implication are more noticeable. Argument between those who believe that there is an optimal capital structure for each firm's and among those who believe in absence of such optimal capital structure for each firm began in late 1950's yet is no resolution of the conflict.

In theory, "Capital Structure is composition of debt and equity that compromises a firm's financially of its assets. Both debt and equity is made after a comparison of certain

characteristics of each kinds of security of internal factors related to the firm's operations and of external factor that can affect the firm" (Hampon, 1986:42)
Basically the theories of capital structure are distinguished into 6 different groups:

1. Traditional Theory
2. Modigliani-Miller Theory
3. Trade off Theory
4. Free Cash Flow Theory
5. Pecking Order Theory
6. Stakeholder Theory

2.3.5.1 Traditional Theory

The first theory is called the "traditional theory" supporters of this theory believe that the lowest weighted average cost of capital (WACC) will maximize the firm's market value. This means the existence of an optimum relation between debts and equity but it is very difficult to reach that point. Although, it is cheaper to finance with debt because after a certain level, the risks of nonpayment increases. In this case shareholders and debt financiers demand a higher compensation.

2.3.5.2 Modigliani-Miller Theory

In 1958, two prominent financial researchers, Franco Modigliani and Merton Miller (MM), showed that under certain assumptions, a firm's overall cost of capital and therefore, its value is independent of the capital structure.

The Modigliani-Miller Theory states that if the capital structure decision has no effect on the cash flows generated by a firm, the decision also will have no effect in the absence of transaction costs on the total value of the firm's debt and equity. This means that there is no relationship between a firm's market value and the capital structure. Profitability of firm's activities is the only factor that determines the market value and the capital structure. This theory is based on the perfect capital market. The only market imperfections they admit are corporate taxes (Van Horne 1995:112).

The assumptions of the Modigliani-Miller theory are:

- Capital market is perfect
- Information is free of costs and widely available
- Here are no transactions cost of buying and selling securities
- All investors behave-rationally and have homogeneous expectations of a firm's earnings.
- Every firm has perpetual flows of money with equal time values.
- All investors can borrow or lend at the same rate.
- There are no personal or corporate taxes.

2.3.5.3 Trade off Theory

The third theory is called the state trade of theory. The tradeoff between the costs and return of debt financing determines the optimum debt ratio. Firms consider this ratio as a target debt ratio, because this ratio will maximize the market value of firm. Myers assumes that firms need to adapt their capital structure to reach that ratio but an adaptation of the capital structure needs time costs and money. Therefore, it is possible that present temporary debt ratios differ from the target ratios (Myers, 1984:576).

2.3.5.4 Free Cash Flow Theory

In the contrary of the trade off theory, in which a firm strives after a maximization of the market value, the free cash flow theory presumes that there are enormous conflicts of interest between shareholders and stakeholders. This implies that manger's decision don't always maximize the market value of the firm (Jensen, 1986:324)

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

2.3.5.5 Pecking Order Theory

Pecking Order is also known as leader or class structure of financing. It was first suggested by Myers and Majluf in 1984. It is also known as pecking order theory for capital structure. This theory is preference theory because the fund sources are selected preference.

The first preference is given to the internal financing that is retained earnings. It is because it avoids the outside security of suppliers of capital and there is no floatation cost associated with the use of retained earnings. The next preference is also given to the straight debt. As explained in the previous section it is a good signal to the investors and help to raise the market price moreover, debt results in less intrusion into management by suppliers of capital and floatation costs are less than those other types of external financing. Next in order of financing preference is preferred stock which has some of the feature of debt. This is followed by the various hybrid securities, like convertible bonds. Finally the least desirable security to issue is straight equity. It is not only a method of financing but it is also likely to have adverse signaling effect. The following assumptions are made by this theory (Myers, 1984:592)

- Firms prefer internal ways to finance projects.
- Firms adapt their target dividend payout ratios to available investment resources.
- Internal resources of a firm are fluctuating because of unpredictable fluctuation of profitability.
- When firms need extra resources, they prefer the safest way of getting funds: this means that firms prefer debt to convertible stock and common stocks.

The result if this pecking order theory is that a firm doesn't have certain target debt ratio. The target ratio is dependent on the way a firm financed its projects in the past. This theory also pays attention to costs of asymmetrical information and cost of bankruptcy.

2.3.5.6 Stakeholder Theory

Assume that not only investors have a lot of influence in the financial policy of a firm. According to Cornell and Shapiro: financial structures also depend in a firm's net original capital and on the nature of its stakeholders (Cornell and Shapiro 1987:215).

2.3.6 Approaches to Capital Structure

The capital structure is a combination of long-term debt and equity; it is a part of financial structure. Thus, the financial decision of a firm relates to choice of proportion of debt and equity to finance the investment requirement a proper balance between risk and return to shareholders. However, it can be expected that if the capital structure decision effect the total value of the firm, a firm should selected such a financing mix, which maximize the shareholders wealth. The optimal capital structure and its implications are more noticeable. Argument between those who believe that there is an optimal capital structure for each

firm's and among those who believe in the absence of such optimal capital structure for each firm began in late 1950's yet there is no resolution of the conflict.

In theory, "Capital Structure is composition of debt and equity that compromises a firm's financially of its assets. Both debt and equity is made after a comparison of certain characteristics of each kinds of security of internal factor related to the firm's operations and of external factor that can affect the firm" (Hampton, 1986:42)

1. Net Income Approach
2. Net Operating Income Approach
3. Traditional Approaches
4. Modigliani Millers Approach

2.3.6.1 Net Income Approach

David Durand proposed the Net Income Approach. This approach states firm can increase its value or lower the cost of capital by using the debt capital. According to NI approach there exist positive relationship between capital structure and value of firm. Under this approach, the cost of debt (kd) and cost of equity (ke) are assumed to be independent of the capital structure. The weighted average cost of capital declines and the total value of the firm rise with increased use of leverage. "The emphasis is an EBIT is to measure how the degree of leverage changes in the valuation of the firm. Assuming a constant capitalization rate, the increases cheaper debt funds lower the WACC and thereby raising the value risky" (Shrestha, 1985:49).

Thus the use of additional debt is cause of increments of total value of the firm and decrease of cost of capital. The crucial assumptions of this approach are (Van Horne, 1977:380).

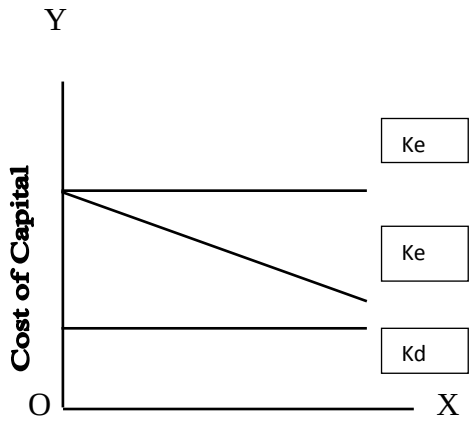
- The use of debt does not change the risk perception of the investors; as a result the equity capitalization rate, kd, remains with changes in leverage.
- The debt capitalization rate, kd, is less than equity capitalization rate, ke.
- The corporate income tax does not exist.
- The cost of debt rate is less than the cost of equity.

According to the first assumption, kd and ke are constant. Increased value of debt will result in the higher value of the firm via higher value of equity. Consequently, the overall cost of capital, ko will decrease. The overall cost of capital is measured by following formula:

$$Ko = \frac{\text{Net operating income}}{\text{Total Value of firm}}$$

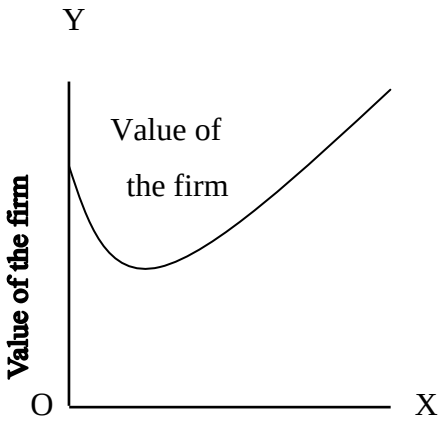
Graphic presentation of this theory is shown in the following graph.

Figure No. 1



Financial leverage

Figure No. 2



Financial leverage

In the above figure, the degree of financial leverage is shown in the horizontal axis and cost capital (ko,kd,ke) in vertical axis. Under this approach kd and ke are assumed to be not change with leverage. As the proportion of debt increased in the capital structure, it cause overall cost of capital to decrease and approach to cost of debt. The optimal capital structure would occur at a pint where the value of the firm is maximum and overall cost of capital is minimum. Under this approach, the firm will have a maximum value and lower cost of capital when it is almost debt financing.

2.3.6.2 Net Operating Income Approach

NOI approach is another behavioral approach suggested by Durand David. This approach is diametrically opposite form the NI approach with respect to the assumption of the behavior of equity holders and debt holders. "Under the NOI approach, the cost of capital is assumed to increase linearly with leverage. As a result, the WACC remains constant and the total value of the firm also remains constant as leverage is change" (Eugune and Hohnoson, 1976:236). The crucial assumptions of NOI approach are (Pradhan, 1992:359).

The market capitalizes the value of firm as a whole. Thus the split between debt and equity is not important. The market uses and overall capitalization rate (Ko) to capitalize the net operating income, Ko depends upon the business risk is assumed to remain unchanged, Ko is a constant. The use less costly debt fund increases the risk of the shareholder. This causes the enquiry capitalization to increase. Thus the advantage of debt is offset exactly by the increasing the equity capitalization rate (Ke). The debt capitalization rate is constant. The corporate income tax does not exist.

Under NOI approach, the capital structure selected is a more detail since the value of the firm is independent of the firm's is capital structure. If the firm increase its use of financial leverage by employing more debt this is directly affect by an increase in the cost of capital. In this approach Ke is determined by following formula:

$$\text{Equity capitalization rate (Ke)} = \frac{\text{EBIT}}{\text{S}}$$

The equation indicated that if Ko and Kd are constant, Ke would linearly debt equity rate (D/S) this is shown in the following graph.

Figure No. 3

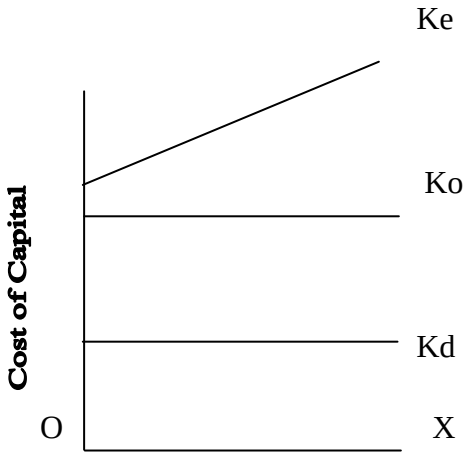
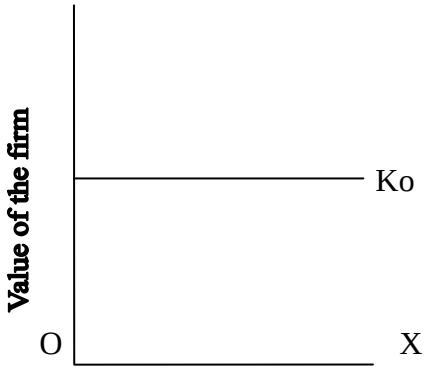


Figure No. 4



Financial Leverage Financial leverage

According to figure we can say at under NOI approach as low cost debt is used. Its advantages in exactly offset by increasing cost equity in such a way that to cost of capital remains constant. By this the values of the firm also remains constant. At the extreme degree of financial leverage, hidden cost become very high hence the firm cost of capital and its market value are not influenced by the use of additional cheap debt fund.

2.3.6.3 Traditional Approach

The traditional approach of capital structure has been popularized by EZRA Solomon, which is also known as intermediate approach. The preceding discussion clearly show that the NI approach as well as NOI approach represent to extreme as the theoretical relationship between financing decision as determining by the capital structure, the weighted average cost of capital and total value of the firm. The NI approach takes the position that use zero debt in the capital structure will always affect the overall cost of capital and total valuation while the NOI approach argues that capital structure is totally irrelevant.

"The traditional approach to valuation and leverage assumes that there is an optimal capital structure that firm can increase the total value of firm through the judicious use of leverage. The approach suggests that the firm initially can lower its cost of capital and raise its value through leverage" (Van Horne, 2000:254).

The traditional approach to valuation and leverage assumes that there is an optimal capital structure that the firm can increase the total value of the firm through the judicious use of leverage. This approach suggests that the firm initially can lower its cost of capital and raise its total value through leverage. Although the investors raise the required rate of return on equity, the increase in Ke does not affect entirely the benefit of using 'cheaper' debt funds.

The main assumptions of the traditional approach are:

The cost of debt (Kd) remains more or less constant up to a certain degree of leverage but rises thereafter at an increasing rate. The cost equity (Ke) remains more or less constant or raises only gradually up to a certain degree of leverage and rises sharply thereafter. The average cost of capital 'Ko' as a consequence of above behavior of 'Ke' and 'Kd' (i) decrease up to a certain point (ii) remains more or less unchanged for moderate increases in leverage thereafter rises beyond a certain point.

"According to the traditional position, the manner in which the overall cost of capital reacts to change in capital structure can be divided into three stages" (Soloman, 1989:194).

First Stage Increasing Value

In the first stage, the equity capitalization rate (Ke) rises only after a certain level of leverage and not before or rises slightly with debt. So that the use of debt does not necessarily increases the 'Ke' and this slight increase in Ke may not be so high as to neutralize the benefit of using cheaper fund. As result, the value of the firm 'V' increases while the overall cost of capital falls with increasing leverage.

Second stage optimum Value

Once the firm has reached a certain degree of leverage have a negligible effect on the value, or the cost of capital of the firm in this stage. This is so because the increase in the cost of equity due to added financial risk offsets the advantage of low cost debt. Within that range or a specific point, the value of the firm will be maximum or cost of capital will be minimum.

Third Stage Declining Value

If the amount of debt is increased further beyond the acceptable limit, the firm would become very risky to the creditors would like to be compensates by a higher return such that Ke will rise. The use of debt beyond a certain point will, therefore have effect of rising the weighted average cost of capital and conversely the total value of the firm.

The overall effect of these three stages is to suggest that the cost of capital is the function of leverage. It declines with leverage and after reaching a minimum point.

Overall Effect

Thus the overall effects of these three stages suggest that the cost of capital is the function of leverage. Up to a point, the use of debt will favorably affect the value of firm, beyond the point; use of debt will adversely affect it. At the level of debt-equity ratio, the capital structure is an optimum capital structure. At the optimum capital structure, the marginal real cost of equity. For the debt-equity ratio before that level of leverage, the marginal real cost of debt would exceed that of equity capital, while beyond that level of leverage, the marginal real cost of debt would exceed that of equity. Thus, according to traditional view, is an optimum capital structure (Khan and Jain, 1990:511).

2.3.6.4 Modigliani-Miller Approach

Franco Modigliani and Miller made formidable at traditional theory and said that the more use of debt increases the risk to common shareholders. Until 1958, capital structure theory considered the loose assertions about investors rather than carefully constructed model, which could test formal statistical analysis. It was believed that judicious mix of debt and equity capital i.e. financial leverage in the capital structure decreases the overall cost of capital, increase the value of firm and help in determining an optimal capital structure.

But in 1958, Franco Modigliani and Merton Miller (MM) addressed capital structure in a rigorous, scientific fashion, and they set off a chain of research that continuous to this day. In 1958, M-M published a research paper, the cost of capital, corporate finance and the theory of investment and added another miles stone on the theory of capital structure. Modigliani-Miller (MM) in their original position advocates the relationship between leverage and the cost of capital, which is explained by the net operating approach.

Modigliani-Miller (MM) theory is identical with a net operating income approach. They argue that, in an absence of taxes, a firm's market value and cost of capital remain invariant to the capital structure changes. In their 1958 article, they provide analytically sound and logically consistent behavioral justification in favor of their hypothesis, and reject any other capital structure theory as incorrect. M-M Explains their Theory Based on the following Important Assumptions:

- Capital market is perfect information is costless and readily available to all investors. There are no transactions costs and all securities are infinitely divisible. Investors are assumed to be rational and to behave accordingly.

- The average future operating earnings of firms are represented by subjective random variables. It is assumed that the expected values of probability distribution of all investors are same.
- Firms can be categorized into "equivalent return" classes. All firms within a class have the class have the same degree of business risk. As we shall see later, this assumption is not essential for their proof.
- The absence of corporate taxes is assumed. MM removes this assumption later.
- The M-M position is based on the idea that no matter how we can divide the capital structure of a firm among debt, equity and other claims, there is a conservation of investment value. M-M in 1958 proposed that the theory without taxes and they relaxed the theory with tax consideration. So, we can classify M-M theory under two ways:

a) M-M Theory without Taxes

This theory can be expressed in term of the propositions I & II.

Propositions-I

The proposition states that the market value of a firm is independent of its capital structure. M-M argue that, for firms in the same risk class, the total market value is independent of debt equity mix and is given by capitalization the net operating income by the rate appropriate to that risk class. This can be expressed as follows:

$$\text{Value of the firm (V)} = \frac{\text{Expected net operating income}}{\text{Expected overall capitalization rate}} = \frac{NOI}{Ko} \text{ or, } = \frac{EBIT}{Ko}$$

For an unlevered firm, Ko = Ke, so

$$V_u = \frac{NOI}{Ko_u} \text{ or, } \frac{NOI}{Ko_u}$$

$$\text{For levered firm, } V_L = \frac{NOI}{Ko_u}$$

Since, value of firm is a constant, and then under the M-M model, when there are no taxes, the value of firm is independent of its leverage. This also implies that:

- The weighted average cost of capital to the firm is completely independent of its capital structure.
- The weighted average cost of capital of the firm, regardless of amount of debt is used, is equal to the cost of equity it would have it is uses no debt.

According to this proposition, there is no relationship between value of firm and the way its capital structure is made up, nor there only relationship between the overall cost of capital and capital structure.

Proposition –II

This theory states that the cost of equity rises proportionately with the increasing leverage in order to compensate in the form of premium for bearing additional risk arising from the increase in leverage. It assumes that only the equity holders adjust the capitalization rate for the degree of financial risk. It means that Ke increases as debt equity ratio increase. The Kd does not respond to change in debt equity ratio and it remains constant.

The cost of equity capital for equity for a levered firm (Ke_L) is equal to cost of equity of an unlevered firm (Ke_U) plus a risk premium equal to the difference between Ke_U and Kd multiplied by debt equity ratio.

$$Ke_L = Ke_U + \frac{(Ke_U - Kd)\, D}{E}$$

According to the above equation, as the firm's use of debt increases, its cost of equity also rises. Due to increases in leverage, firm gets the benefit of cheaper debt, but the benefit is exactly offset by an increase in the cost of equity in the firm of risk premium expected by the share holders, against an increase in financial risk. The two M-M propositions imply that the inclusion of more debt in the capital structure will not increase the value of the firm. Thus M-M argue that in the world without taxes, both the value of the firm and its weighted average cost of would be unaffected by its capital structure.

b) M-M Theory with Taxes

The 1963 M-M article incorporated corporate taxes but the 1958 article did not include. In reality, the corporate income taxes exist and interest paid to the debt holders is treated as deductible expenses. So, debt financing is advantageous.

"In the 1963 article-M proved that the value of the firm will increase with debt due to deductibility of the interest charges for tax computation, and the value of levered firm will be higher than of levered firm" (Pandey, 1999:694). Thus the value of levered firm is equal to the value of the levered firm is equal to the value of unlevered firm plus the present value of tax shield.

Symbolically, $V_L = V_U$ + PV of interest tax shield

When corporate tax introduced, the value of levered firm exceed that of the unlevered firm by the amount of tax shield. Since the gain form leverage as debt increase, in the theory a firm's value is maximized at 100% debt financing. With zero debt, the value of firm is equal to the firm's value of equity. The value of unlevered firm can be found by using following equation.

$$V_U = S = \frac{EBIT\ (1 - T)}{Ke_U}$$

Where,

VL = Value of levered firm

VU = value of unlevered firm

T = corporate tax

Ke_U = Cost of equity of unlevered firm

The M-M's "Tax-Corrected" view suggests that, because of tax deductibility of interest charges, a firm can increase its value or lower its value or lower its cost of capital continuously with leverage. Thus the optimal capital structure is reached when the firm employs 100% debt in its capital structure. But the observed experience is contrary to this view. In practice firm do not employ large amount of debt, nor are lenders ready to lend

beyond certain limits. M-M suggests that firms would adopt a target debt ratio so as not violate the limit of debt level imposed by lenders.

2.4 Approaches to Establish Appropriate Capital Structure

The success of any company depends upon capital structure decision. This affects the value of the firm, earning per share and overall capitalization rate of the firm. The initial capital structure should be designed carefully. Firstly, all the available sources of funds should be identified. Carefully analysis should be carried out taking into consideration the advantages and disadvantages of each source. The company should make a proper mix of those sources while making the final decision for financing.

The financial manager should identify all alternatives and weigh the advantages & disadvantages of each of the available should select among the alternatives. Capital structure decision is ongoing process and should be considered when needed. Different approaches are available for the selection of appropriate capital structure. The common approaches are as follows:

- EBIT-EPS Analysis
- Cash flow Analysis

2.4.1 EBIT-EPS Analysis

The common goal of companies is to maximize the shareholder's wealth i.e. earnings per share. So, the company should select that financial plan which maximizes the earning per share of the company. EBIT-EPS approach analyzes the impact of various financial plans on earning per share.

The higher the level of EBIT in relation to indifference point, the stronger the case that can be made for debt financing, all other things being the same. The lower EBIT is in relation to the indifference point the stronger the case for common stock financing. This is particularly true when the indifference is below the existing level EBIT.

2.4.2 Cash Flow Analysis

Cash flow analysis is the other approach to establish an appropriate capital structure. When considering the appropriate capital structure, the financial manager should analyze the cash flow ability of the firm to serve fixed charges. Fixed charges include payment of interest,

preference dividend; principal payment and lease payment. They depend on both the amount of loan securities and term of payment.

The fixed charges will be high if the company employs large amount of debt or preference capital with short-term maturity. Whenever the company thinks of raising additional debt, it should analyze expected future cash flows to meet the fixed charges. The inability to meet these fixed charges would be disastrous to the company. Cash flow analysis is helpful to determine the debt capacity of the firm. Debt capacity is the amount which a firm can serve easily ever under adverse conditions; it is the amount that the firm should employ. Coverage ratios can be used to analyze the debt capacity of the firm.

Among the coverage ratios, most widely used coverage ratio is time interest earned or interest coverage ratio and can be calculated by using the following formula:

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

The ability to pay interest is measured with the help of this ratio. It also measures the extent to which operating income can decline before the firm is unable to meet its annual interest costs. Failure to meet this obligation can bring legal action by the firm's creditors, possibly resulting in bankruptcy.

Time interest earned ratio tells us nothing about the ability of the firm to meet principal payments on its debt. The inability to meet principal payment constitutes some legal default as failure to meet an interest payment. Therefore, debt service coverage ratio is useful to test the ability to serve debt. This ratio is

$$\text{Debt service coverage ratio} = \frac{\text{EBIT}}{\text{Interest} + \frac{\text{Principal payment}}{1 - \text{Tax rate}}}$$

Debt capacity should be thought in terms of cash flows rather than debt ratios. A high debt ratio is not necessarily bad. If firm can serve high debt without any risk, it will increase shareholder's wealth. On the other hand, a low debt flow ratio can prove to be burden for a

firm, which has liquidity problem. A firm faces financial distress when it has cash flow problem.

2.5 Review of Article and Journal

In this section various article and journal are reviewed to make clear view to analysis of capital structure.

Manohar Krishna Shrestha, (1985) *"The Journal of Public administration, Analysis Of Capital Structure In Selected Public Enterprises".* He has found that the selected public enterprises under study have a very confusing capital structure, since the cooperation's are not guides by objectives based financial plans and policies in many instances in idolism become the basis of capital structure and most of them want to eliminate debt if possible to relieve financial obligation. He has further pointed out that there were neither to the public enterprises nor private enterprises developed criteria is detaining capital structure and this is the reason as to why debt equity ratio cause a ticklish problem. He has also suggested that the debt equity rate should neither highly levered to create too much financial obligations that the beyond capacity to meet nor should it be much low lever infuse operational strategy to bypass responsibility without performance.

Reema Devi Shrestha, (1993) *"Focus On Capital Of Selected And Listed Public Companies".* The study used data from 19 companies, which covered different sectors such as manufacturing finance, utility service and other allied areas. It was found that most of these companies have capital relatively very high than equity capital. Consequently most of them are operating at the extent that payment of interest on loan which has been a serious issue. Most of these losses are after changing interest on loan. It has suggested that the government has to consider the public enterprises in evaluation the relationship between use of debt and its impact on overall earning of public enterprises. So government should be sure in knowing how to use debt capital which will maximize return, it should develop a suitable capital structure guideline to make public enterprises aware of its responsibility and to repay the debt schedules. Government has to analyze cost and risk return trade off. Thus capital structure needs to be made more determine by realistic analysis of cost. Lastly, she concluded that the policy makers have to be careful in developing the suitable capital

structure guidelines in making public enterprises as well as listed companies to be aware of financial accountability.

Pandey, (1995) in study of *"financial Management".* He has tried to test MM approach in the development economy with taking the sample form different utilities: Cotton, Chemicals, Engineering and Electricity from Indian Market. He made some improvement in the model derived by MM approach and he used multiple regression equation for the year 1969 and 1970 and for the pooled data of the three cross section years. The improvement was made on the measurement of leverage and added earnings variability and liquidity as risk measure variable in the regression equation; he used two types of leverage as follows:

The debt to total ratio, D/V

The debt to equity ratio, D/S

These two ratios were measured with or without preference share capital in the debt portion. Both leverages were done on book value and included short-term loan as part of leverage. The regression equation used as follows:

$$Ko = a_1 + b_1L_1 + b_2logs + b_3g + b\frac{4D}{P} + b_5Liq + b_6Ev + v$$

Where,

Ko = Average cost of capital

L = Leverage

S = Size

G = Growth

D/P = Dividend payout ratio

Liq = Liquidity

Ev = Earning Variability

V = Random Disturbance term

In the above, regression equation, the average cost capital regressed with both the measure of leverage, i.e. debt to total capital and debt plus preferred stock to total capital, with other explanatory variables and the result were consistent with the traditional view, the average cost of capital declines with increasing debt in financial structure.

Joshua Arbor, (2005) *"The Effect Of Capital Structure On Profitability"* Mentioned that the relationship between capital structure and firm has been the subject of considerable debate. Throughout the literature debate has centered on whether there is an optimal capital structure for an individual firm or whether the proposition of debt usage is irrelevant to the individual firms. Value the capital structure of firm concerns the mix of debt and equity the firm's uses in its operation Berkley and Myers contend that the choice of capital structure is fundamentally a marketing problem. According to Weston and Brigham, the optimal capital structure is the one that maximizes the market value of the firm's outstanding shares. The need balance gains and costs of debt financing emerged as a theory known as the static trade off theory by Myers. It values the company as the value of the firm if unleveled plus the present value of the tax shield minus the present value of bankruptcy and agency costs.

2.6 Review of dissertation

Previous studies are reviewed in this section. It consists of thesis and dissertations done by previous master level students as well as other research works related to the capital structure. In this section the following research studies have been reviewed.

A research done by **Mr. karna Bahadur Thapa, (1996) on** *"A Study on Capital Structure Management of Jyoti Spinning Mills Limited",* has found that in the beginning the company has employed large amount of outsiders loan which is beyond its debt servicing capital and debt removing capacity as well. The company is not able to maintain optimal capital structure. The relationship between risk and return is found negative. The company is suffering higher operating losses since its establishment. The shareholders are bearing cumulative losses, instead of getting return on their investment. He recommends maintaining the optimal capital structure, changing its existing capital structure by reducing debt capital and obtaining additional funds through the issue of share capital or by converting it into equity capital. The company should minimize the administrative and operating costs.

A study done by **Mr. Bal Krishna G.C., (1988)** on *"A Study on Capital and Assets Structure of Rastriya Beema Sansthan",* has found that the sound financial position as well as the strength of the company depends to a large existence in the capital and assts structures. The capital structure of Rastriya Beema Sansthan presents its variability and resource capacity. The capital and assets structure of Rastriya Beema Sansthan is subscribed as the composition of the capital, reserve and funds, balance of accounts, current liabilities investment, cash and bank, other assets, total income and expenditure. He has used statistical and financial tools such as ratio, percentage, average, correlation co-efficient, standard deviation, coefficient of determination, etc to analyze the components of capital and assets. From his analysis, it is known that capital has been in increasing trend during the study period and all other components also has been in increasing trend during the study period,. The return on assets is changing on percentage basis with a negative sign. The overall observation shows that the return on assets is not in favor, so he has suggested that the total assets have to be properly utilized. So that net income would increase.

A study done by **Mr. Koirala (2003)** has studied *"A Comparative Evaluation of Capital Structure Between Dabur Nepal Pvt. Ltd (DNPL) and Nepal Lever Limited (NLL)".* According to his study the DNPL is highly levered firm and NLL is unlevered since four years. The debt equity ratio, in terms of long term debt and shareholders equity, of DNPL is higher than NLL.

The capital structure of DNPL is debt based whereas NLL cut off long term debt financing. So he has suggested both the companies to change their debt by changing long term debt to share capital and incase of NLL, to consider long term debt while financing. So, both the companies are suggested to maintain appropriate debt ratio, which minimizes the cost and maximizes the return of the firm. He further finds that the DNPL is bearing operating expenses. Similarly, NLL also is bearing high interest expenses even it does not use long term debt in its capital structure. As a result, the return of the firm is not satisfactory. So, he has recommended both the companies to minimize interest expenses by using cheaper debt as well as other operating expenses to increase the return of the firm.

In study conducted by **Mr. Aryal (2004),** about the evaluation of *"Capital Structure of Bottlers Nepal Ltd"* has suggested that, the management must bring about the satisfactory compromise among these confusing factors of cost, risk, control and timing. And it was found that the company has high debt to equity ratio, so the company is regarded as highly geared company is to lower down the amount of debt and to obtain additional funds through the issue of equity capital from debt capital if the company had high rate of return and company has to follow the greater norms of optimum capital structure.

Pandey, (2006) *"The Relationship between Capital Structure and Cost of Capital of Selected Listed Company in Nepal".* The main objectives of study are; to test the relationship between capital structure and average cost of capital in Nepalese industries and to analyze the properties formed on leverage and cost of capital of Nepalese on enterprises. The major findings of the study are: average cost of capital and liquidity are higher in manufacturing industry, leverage size of capital employee and cost of equity of banking sector is higher than other sectors. The correlation coefficient of leverage has positive correlation with cost capital of banking industry. Growth in total assets, dividend payout ratio and earning variability of finance, trading and hotel industrialist are higher than other industries respectively. As per based on the study, the major recommendation and suggestion of the study are; Nepalese enterprises should be designed and appropriate capital structure in order to maximize shareholders' wealth proper analyze and evaluation of capital mixed decision should be required in the Nepalese enterprises. Nepalese Enterprises do not appear to maintain proper liquidity standard. It is necessary to maintain liquidity standard to compensate short term risk.

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

Pradhan, (2010) has carried out a study on "*Capital & Profitability"* a comparative case study between Nepal investments Bank Ltd & Nepal SBI Bank Ltd". The capital structures of both banks are highly levered, so it is difficult for them to interest and principal that may ultimately lead them to liquidity and bankruptcy. There is no significance relationship between debt and equity ratio in term of fixed deposit to net worth and overall capitalization rates of the banks. He has suggested that NIBL should expand assets and branches, which ultimately affect the bank's performance, increase the profitability more than ever.

2.7 Research Gap

There are various researches which have been done on the capital structure of manufacturing industries, non manufacturing industries, hotel, banking sector, and also some thesis are written in airline sector, but not many thesis have been conducted on general insurance sector. It has studies about the three sample insurance companies to suggest the whole general insurance sector. Only one thesis on the study of assets and capital structure of Rastriya Beema Sansthan have been conducted, but comparative study about this sector in capital structure have not been studied from last few years.

I have used primary data to know view of respondent and capital structure effects and decisions as well as secondary data to find out the problem faced by the insurance sector in decision of capital structure and suggest them to overcome from such decision problems. I have used almost all the ratios have been applied to overcome the analytical part and fulfill the objectives of the study. I hope this research will definitely help the new researcher to study in the corresponding subject. It will find out the problem faced by the insurance sector in decision of capital structure and suggest them to overcome from such decision problems.

CHAPTER -3

RESEARCH METHODOLOGY

3.1 Introduction

Research is the combination of two words. i.e. Re plus search which means to search again. Research is a systematic method of finding out solution to a problem. This process of investigation involves a series of well throughout activities of gathering, recording, analysis and interpretation of the facts and figures. The basic objective of the study is to analyze the capital structure of Premier Insurance Co. Ltd., Sagarmatha Insurance Co. Ltd. and Neco Insurance Ltd. So, suitable research methodology as demanded by the study is followed. It consists of the research design, population and sample, data collection procedure, method of analysis and tools for analysis.

3.2 Research Design

"A research is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure" (Claire, 1962: 50).

The research design is a plan to obtain the answers of research question through analysis of data. It is the foundation of any study and it is taken as a conceptual frame work for a study that helps the analysis of data related to the study topic.

For the analysis of capital structure of selected insurance companies, analytical as well as descriptive designs are applied to achieve the objective of the research. The various financial tools use the analytical research design to measure the financial position. It includes the calculation of correlation coefficient, mean ranking and bar diagram. All these elements will cover in research design; will be very essential to find out the desired resulting order to develop insurance business in the country.

3.3 Population and Sample

"The large group about which the generalization is made is called the population under study or the universe and small portion on which the study is made is called the sample of the study" (Shrestha and Silwal, 2057:155)

There are 25 insurance companies in Nepal. It is not possible to study all of them. Therefore, three of them i.e. Premier Insurance Co. (Nepal) Ltd., Sagarmatha Insurance Co. Ltd. And Neco Insurance Limited are taken as sample among the population.

The selected three companies are private companies and all of them are operating non-life insurance business i.e. general insurance business. The relevant data is taken from these three companies to cover the objectives of the study. For our study comparative analysis of capital structure of insurance sector, three insurance companies are to select as sample. Therefore Premier Insurance Co. Ltd., Sagarmatha Insurance Co. Ltd. and Neco Insurance Co. Ltd are the sample of the study.

3.4 Data Collection Procedure

The collection of the data is considered as an integral part of research activity. Thus, according to the nature of our study, the require data will be collect from two sources.

- Primary
- Secondary

The primary data were collected from the response of person representing from the various sector through questionnaire, informal and formal discussion and interview with concern person.

Data, which are already and are made available to others in the form of published statistics, are known as secondary data and it is collected from insurance Board, the financial statement of the concerned insurance companies.

All the information were grouped at one place and analyzed thoroughly. After these financial tools and statistical tools are used evaluate and examine capital structure management in the research process.

3.5 Methods of Data Analysis

For the purpose of analysis, data of five years will be taken as sample from 2064/65 to 2068/069. These will be analyzed financially and statistically and results are jointly interpreted. This study, analysis of capital structure of Premier Insurance Co. Ltd., Sagarmatha Insurance Co. Ltd. and Neco Insurance Ltd. is a part of financial analysis.

In this way all the tools used in this study can be classified into two categories; financial tools and statistical tools that are as follows:

(I) Financial tools:-

Financial tools help to analyze the capital structure. There are many financial tools, which are helpful to analyze the capital structure of firm. But our concern is limited to some financial tools that are directly concerned with the study of capital structure.

The capital structure ratio is defined a financial ratios, which throw light in the long-term solvency of a firm. The major ratio used in this research is:

a) Financial Leverage ratio

The financial leverage indicates the relationship between the total debts to total assets of a firm. It shows share of debt in the purchase of assets. The total debt of the firm compromises long-term debt and current liabilities. The total asset consists of permanent capital plus current asset. The total debt to total assets can be calculated by using following formula;

$$\text{Financial Leverage} = \frac{\text{Total Debt}}{\text{Total asset}} \times 100$$

The higher ratio indicates that the creditors claim in the total assets of the company is higher than the owners claim. Higher ratio specifies the higher leverage risk and too high ratio leads the carelessness of share holders to the business activities.

b) Debt Equity Ratio

Debt Equity ratio is vital tool to analyze the long-term solvency of a firm. This ratio equals the firm's debt divided by its equity, where debt can be defined as total debt or as long-term debt. This ratio shows the number of times the interest charges are covered by funds that are ordinarily available for their payment. Thus it is computed as

$$\text{Debt-equity ratio} = \frac{\text{Long-term debt}}{\text{Shareholder's equity}} \times 100$$

The higher ratio indicates that the claim of the creditor's than that of the owner's.

c) Interest Coverage Ratio

It is also known as time interest earned ratio. This ratio is one of the most convention coverage ratio used to test the firm's servicing capacity. The ratio shows the number of times the interest charges are covered by funds that are ordinarily available for their payment, thus it is computed as

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

d) The Degree of Financial Leverage (DFL)

It is also called EBIT-EPS approach. This approach analyses impact of debt on earning per share. It examines possible fluctuations in EBIT and its impact on EPS under different financial plan. It thus concluded that greater level of EBIT and lower the probability of downward fluctuation, it is more beneficial to use debt in capital structure. But EBIT-EPS approach suffers from certain limitation like EPS criteria doesn't consider long term perspective of financing i.e. it doesn't focus on wealth maximization rather it focus on EPS maximization because company can increase debt into a certain point and if the company increases its debt beyond that point the expected EPS may increase but the value of firm decrease due to greater exposure of shareholder's toward financial risk. So, while determining capital structure. The firm should analyze EBIT and its impact on EPS this ratio shows the efficiency of management and utilization of shareholders funds. It can be calculated as follows:

$$\text{DFL} = \frac{\text{\% change in EPS}}{\text{\% change in EBIT}}$$

Or, it can be also calculated as:

$$\text{DFL} = \frac{\text{EBIT}}{\text{EBIT} - \frac{\text{Pref. div}}{1 - \text{T}}}$$

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

e) Return on Total Assets Ratio

This measures the profitability with respect to total asset. It is computed as

$$\text{Return on Total Asset} = \frac{\text{Net income}}{\text{Total assets}}$$

f) Net Profit Ratio

This ratio shows the operating efficiency of management. It establishes the relationship between net profit and net sales. It can be calculated as follows.

$$\text{Net Profit Ratio} = \frac{\text{EAT}}{\text{Net Sales}}$$

Note : Here net sales stands for total premium collection.

High net Profit ratio indicates the high operating efficiency.

g) Return On Shareholder's Equity

A return on share holder's equity is calculated to see the profitability of owner's investment. The shareholder's equity includes paid-up share capital, share premium, reserves and supplies less accumulated losses. This ratio can be calculated as follows

$$\text{Return on Shareholder's Equity} = \frac{\text{Net Profit After Tax}}{\text{Shareholder's equity}} \times 100$$

Here, the shareholder's equity includes both ordinary and preference capital but excluded post-accumulated losses and deferred expenditures.

h) Value of the firm

The market value of firm is sum value of debt and value of equity.

i) The overall capitalization rate under NI approach

Overall capitalization means the cost of overall capital collected by the company from different source. The ratio is calculated by using the following formula.

$$Ko = \frac{EBIT}{V}$$

Where, Ko = Overall Capitalization rate

V = Value of the firm

EBIT = Earning before Interest and Taxes

j) Statistical Tools

Statistics, originated as the quantity of information use for a political state, has now become a very much well developed discipline backed by efficient scientific methods for the collection, analysis and interpretation of both qualitative and quantitative information. It deals with collection, analysis and interpretation of data" (Swain, 1997: 3-4)

The relationship between two or more variables can be measured by using statistical tools. For the purpose of the study simple statistical tools are used.

i) Correlation co-efficient (r)

Correlation simply is mutual dependence of two or more variables. The correlation co-efficient indicates the relationship between dependent variables and independent variables. It is one of the methods of determining the relationship these two variables.

There are several methods of measuring correlation. In this method, it can be calculated by using the method of Karl Person's correlation co-efficient because it is one of the widely used mathematical methods of calculating the correlation coefficient between variables. The correlation co-efficient denoted by 'r' can be calculated by using following formula:

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

Where, N = number of observation

X and Y are variables

The value of correlation co-efficient range from -1 to +1.

If r = 0, there is no relationship between two variables or the variables are uncorrelated.

If r = +1, there is positive correlation between the two variables

If r = -1, there is negative perfect correlation between the two variables

ii) 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 in so far it depends on the conditions of random sampling. The probable error of the coefficient of correlation is obtained as follows

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

Where, r = correlation coefficient
N = Number of pairs of observation

It can be interpreted to know whether its calculated value of correlation co-efficient is significant or not in the following ways.

If r > P.E., the value of 'r' is significant i.e. practically the correlation is certain.

If the value of r is more than six times the probable error, the coefficient of correlation is practically certain. The value of 'r' is significant.

iii) Mean Ranking

The data generated through questionnaire of respondents are analyzed using descriptive method. After this the data are presented into table whenever necessary. The tabulated data

are analyzed by using mean ranking, first of all it conducted mean and they are ranked to take easily decision.

iv) Bar Diagram

The collected data for the statistical analysis is always in raw form, which we need to organize. So as to have better understanding what information the data aim to convey. Te diagrammatic and graphic presentation of data makes it clear to understand what the given data is going to tell us. The pictorial presentation of statistical data in the form of geometrical figures like bars, square and caraculs etc. are known as diagram. Bar diagram are constructed specially for categorical data. They consider group of equidistant rectangles to present the given values.

CHAPTER 4

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter deals with presentation of data in meaningful way. 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, financial analysis and performing statistical analysis. The financial analysis is done through presentation of data and calculating various financial ratios. The main objective of this study to evaluate capital structure decision of Nepalese insurance sector. To analyze the financial performance in respect of capital structure, various presentation and analysis have been done in this chapter.

Capital structure is concerned with the analyzing the capital composition of the company. It refers to the combination of long-term debt and equity capital. To access the position and decision of capital structure of capital structure of Premier Insurance Company Ltd., Sagarmatha Insurance Company Ltd. and Neco Insurance Ltd. the whole analysis has been divided into following sections.

- Ratio Analysis
- Capital Structure Analysis
- Statistical Analysis

4.2 Ratio Analysis

An arithmetical relationship between two figures is known as ratio. It is computed by dividing one items of relationship with the other.

To evaluate the performance of the firm's by creating ratios from of figures of different account consisting in balance sheet and income statement is known as ratio analysis. Financial ratios can be classified into liquidity ratio, leverage ratio, profitability ratio and turnover ratio. But our study is based on following ratios that are directly or indirectly related to the capital structure of the firm.

4.2.1 Analysis of debt to Equity Ratio

The debt to equity ratio is the relationship between borrowed funds and owner's capital. It is determined to measures the firm's obligation to creditors in relation to funds invested by owners. Short-term debt and accruals provide leverage in just as long term debt. Current liabilities are usually omitted from the ratio because the firm is assumed to be able to adjust the short-term part of capital structure rapidly when the rate of return on assets declines. Debenture/bonds, long term loan etc. are major sources of debt or borrowed capital. But due to the lack of long term borrowing, the debt considered here including of current liabilities only. This ratio is computed by using following formula i.e.

$$\text{Debt to equity ratio} = \frac{\text{Total debts}}{\text{Shareholder's equity}}$$

Here, Total debts = Current liabilities

From the fiscal year 2064/65 Beema Samiti has changed its rules. The annual report of insurance companies has been changed into a new format. So, in previous studies till 2063/64 Shareholder's equity = Share capital + Preference share capital share Premium retained earning reserve and surplus profit and loss A/c + general reserve capital reserve sinking fund reserve for contingencies, has been studied as equity capital. But, in this study we are using Paid up capital and Reserves and funds only as shareholders equity. Thus in following table debt equity ratio are presented and interpret in the following ways.

Table No. 2

Debt to Equity Ratios of PICL

(Amount in NRs.)

Fiscal Year	Total Debt	Share Holders Equity	D/E Ratio %	Change %
2063/64	26,736,882	94,830,902	28.19	-
2064/65	76,475,143	100,062,988	76.43	48.23
2065/66	67,883,331	135,125,986	50.24	(26.19)
2066/67	76,807,401	135,600,288	56.64	6.41
2067/68	92,742,980	142,470,435	65.10	8.45
Average			55.32	

Source : Annual reports of PICL

Table No. 3

Debt to Equity Ratios of SICL

(Amount in NRs.)

Fiscal Year	Total Debt	Share Holders Equity	D/E Ratio %	Change %
2063/64	121,730,778	134,946,175	90.21	-
2064/65	87,933,832	155,303,631	56.62	(33.59)
2065/66	93,462,830	165,356,535	56.52	(0.10)
2066/67	121,743,385	179,976,791	67.64	11.12
2067/68	112,723,820	248,177,173	45.42	(22.22)
Average			63.28	

Source : Annual reports of SICL

Table No. 4

Debt to Equity Ratio of NIL

(Amount in NRs.)

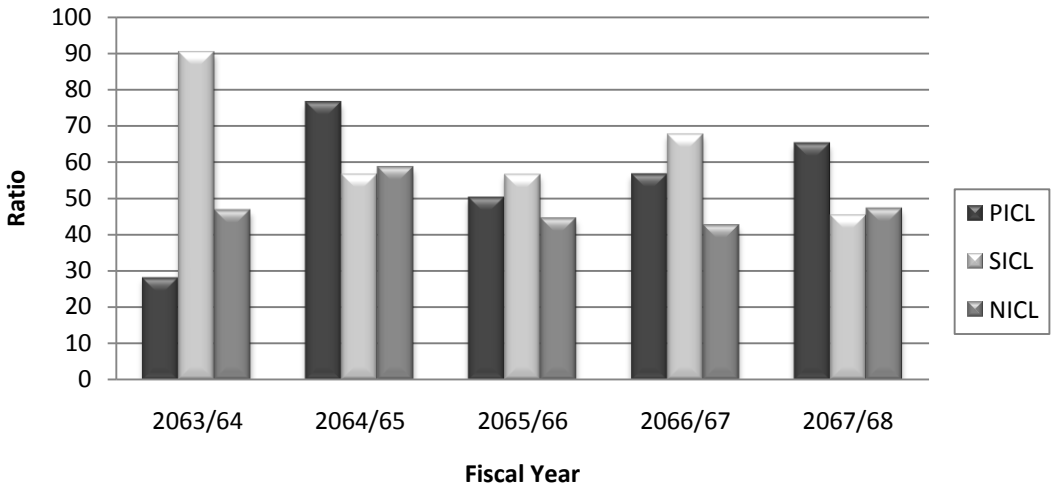
Fiscal Year	Total Debt	Share Holders Equity	D/E Ratio %	Change %
2063/64	38,275,452	82,195,229	46.57	-
2064/65	47,966,945	82,195,229	58.36	11.79
2065/66	61,388,136	138,457,382	44.34	(14.02)
2066/67	61,328,119	144,471,564	42.45	(1.89)
2067/68	71,596,473	152,237,347	47.03	4.58
Average			47.75	

Source : Annual reports of NIL

The above data can be presented by following figure:

Figure No. 5

Debt to Equity Ratio of PICL, SICL and NIL



The calculated ratio in above table shows that PICL has fluctuating trends of D/E ratio. The D/E ratio in fiscal year 2063/64 constitutes 28.19% then afterwards 76.43%, 50.24%, 56.64% and 65.10% in the fiscal year 2064/65, 2065/66, 2066/67 and 2067/68 respectively. The above calculated table indicates that D/E ratio of PICL range between 76.43% to 28.19%. The average D/E ratio of PICL is 55.32% of Equity Financing. The calculation shows that the ratios of fiscal year 2063/64 and 2065/66 are less than average and the ratio of fiscal year 2064/65, 2066/67 and 2067/68 are greater than average. The greater ratio implies that

the high claim of creditors than the owners of the company. The average ratio of PICL is 55.32%, which indicates that the claims of creditors are 55.32% higher than the owners.

While SICL has also its ratio in fluctuating trend. The D/E ratio in the fiscal year 2063/64 constitutes 90.21% then afterwards 56.62% , 56.52%, 67.64% and 45.42% in the fiscal year 2064/65, 2065/66, 2066/67 and 2067/68 respectively. The ratio of SICL range between 90.21% to 45.42%. The average ratio of SICL is 63.28%, which indicates that the claims of creditors are 63.28% higher than the owners. The calculation shows that the ratios of fiscal year 2064/65, 2065/66 and 2067/68 are less than average and the ratios of fiscal year 2063/64 and 2066/67 are greater than average.

Likewise, the D/E ratio of NIL is fluctuating in every year. The D/E ratio in the fiscal year 2063/64 constitutes 46.57% then afterwards 58.36%, 44.34%, 42.45% and 47.03% in the fiscal year 2064/65, 2065/66, 2066/67 and 2067/68 respectively. The ratio of NIL range between 58.36% to 42.45%. The average D/E ratio of NIL is found to be 47.75%. The above calculation shows that the ratios of fiscal year 2063/64, 2065/66, 2066/67 and 2067/68 are less than average and the ratios of fiscal year 2064/65 is greater than average. The average ratio indicates that the claims of creditors are 47.75% higher than the owners.

4.2.2 Analysis of Total Debt to Total Assets Ratio

The ratio of total debt assets, generally called the debt ratio is also known as leverage ratio. It measures the percentage of total funds provided by outsiders. Raising their value through the raising their expected earning per share, when the funds provided by outsiders are successfully employed benefits to shareholders. High ratio shows firm's success in exploiting debt to more profitable. High ratio also indicates the riskier capital structure position to the owner or the shareholders of the firm as well as carelessness of shareholders to the business. This ratio can be calculated by dividing total debt by total assets. This ratio of PICL, SICL and NIL is calculated and interpreted in the following ways.

Table No. 5

Total Debt to Total Assets Ratio of PICL

(Amount in NRs.)

Fiscal Year	Total Debt	Total Assets	Debt Ratio %	Change %

2063/64	26,736,882	196,352,940	13.62	-
2064/65	76,475,143	237,719,740	32.17	18.55
2065/66	67,883,331	291,851,581	23.26	(8.91)
2066/67	76,807,401	361,328,982	21.26	(2.00)
2067/68	92,742,980	393,571,413	23.56	2.31
Average			22.77	

Source : Annual reports of PICL

Table No. 6

Total Debt to Total Assets Ratio of SICL

(Amount in NRs.)

Fiscal Year	Total Debt	Total Assets	Debt Ratio %	Change %
2063/64	121,730,778	351,013,057.00	34.68	-
2064/65	87,933,832	387,183,942.00	22.71	(11.97)
2065/66	93,462,830	459,578,652.53	20.34	(2.37)
2066/67	121,743,385	658,944,174.73	18.48	(1.86)
2067/68	112,723,820	853,137,640.94	13.21	(5.26)
Average			21.88	

Source : Annual reports of SICL

Table No. 7

Total Debt to Total Assets Ratio of NIL

(Amount in NRs.)

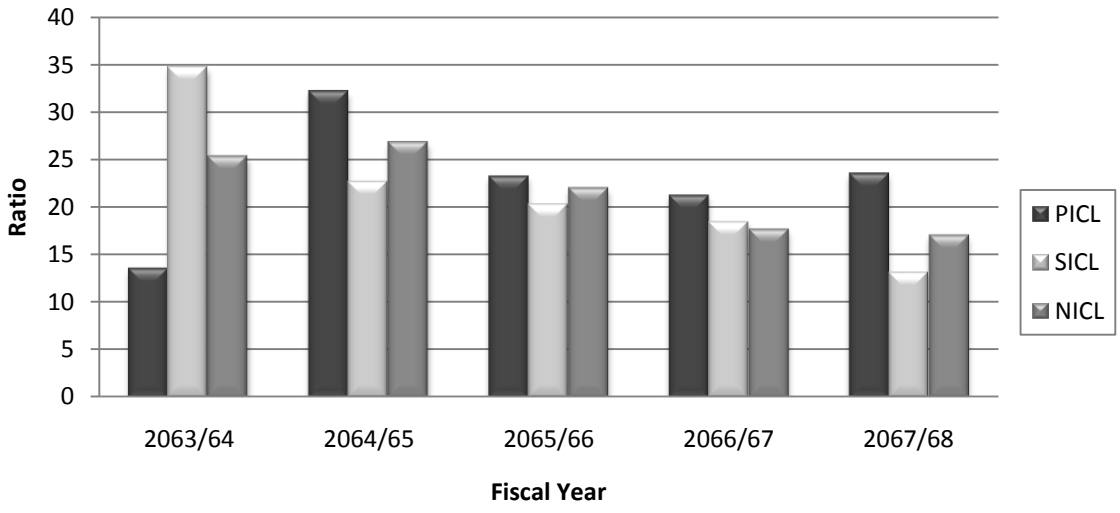
Fiscal Year	Total Debt	Total Assets	Debt Ratio %	Change %
2063/64	38,275,452	151,138,046	25.32	-
2064/65	47,966,945	179,004,432	26.80	1.47
2065/66	61,388,136	279,279,702	21.98	(4.82)
2066/67	61,328,119	346,800,841	17.68	(4.30)
2067/68	71,596,473	419,698,022	17.06	(0.62)
Average			21.77	

Source : Annual reports of NIL

The above data can be presented in the following figure:

Figure No. 6

Total Debt to Total Assets Ratio of PICL,SICL & NIL



According to above calculation, the calculated debt to total assets ratio of PICL shows the fluctuating trend. The ratio in fiscal year 2063/64 is 13.62%, then afterwards 32.17%, 23.26%, 21.26% and 23.56% in the fiscal year 2064/65, 2065/66, 2066/67 and 2067/68 respectively. The above calculated table indicates that debt to total assets ratio of PICL range between 32.17% to 13.62%. The average debt to total assets ratio of PICL is 22.77 %. The calculation shows that the ratios of fiscal year 2064/65, 2065/66 and 2067/68 are greater than average. The greater ratio shows firm's success in exploiting debt to more

profitable. The greater ratio also indicates the riskier capital structure position to the owner or the shareholders of the firm as well as carelessness of the shareholders to the business.

While SICL also has its ratio in decreasing trend. The ratio in the fiscal year 2063/64 is 34.68%. Similarly, ratio in the fiscal year 2064/65, 2065/66, 2066/67 and 2067/68 are 22.71%, 20.34%, 18.48% and 13.21% respectively. The average debt to total assets ratio of SICL is 21.88%. The above calculated table indicates that debt to total assets ratio of SICL range between 34.68% to 13.21%. The calculation shows that the ratios in fiscal year 2063/64 and 2064/65 are greater than the average. The greater ratio shows firm's success in exploiting debt to more profitable.

Likewise, the ratio of NIL is found fluctuating every year of our study. The debt to total assets ratio in the fiscal year 2063/64 is 25.32% then afterwards 26.80% , 21.98%, 17.68% and 17.06% in the fiscal year 2064/65, 2065/66, 2066/67 and 2067/68 respectively. The ratio of NIL range between 26.80% to 17.06%. The average debt to total assets ratio of NIL is found to be 21.7 %. The above calculation shows that the ratios of fiscal year 2063/64, 2064/65 and 2065/66 are greater than average. The greater indicates the riskier capital structure position to the owner or the shareholders of the firm as well as carelessness of shareholders to the business.

4.2.3 Analysis of Debt to Total Capital Ratio

It shows the relation between total debts and total liabilities. It can be presented by following formula.

$$\text{Debt to total capital ratio} = \frac{\text{Total Debts}}{\text{Permanent capital}}$$

Where, permanent Capital = Equity share capital + Insurance fund

This ratio shows the contribution of long- term debts on total permanent capital. High ratio shows the high riskiness and creditors are more serious about their investment. Low ratio shows the low riskiness and creditors feel more safety on their investment.

Table No. 8

Total Debt to Total Capital Ratio of PICL

(Amount in NRs.)

Fiscal Year	Total Debt	Total Capital	Ratio %	Change %
2063/64	26,736,882	94,830,902	28.19	-
2064/65	76,475,143	105,295,073	72.63	44.44
2065/66	67,883,331	147,174,911	46.12	(26.51)
2066/67	76,807,401	155,990,877	49.24	3.11
2067/68	92,742,980	172,294,624	53.83	4.59
Average			50.00	

Source : Annual reports of PICL

Table No. 9

Total Debt to Total Capital Ratio of SICL

(Amount in NRs.)

Fiscal Year	Total Debt	Total Capital	Ratio %	Change %
2063/64	121,730,778	134,946,175	90.21	-
2064/65	87,933,832	163,006,367	53.95	(36.26)
2065/66	93,462,830	194,397,134	48.08	(5.87)
2066/67	121,743,385	236,998,268	51.37	3.29
2067/68	112,723,820	327,835,728	34.38	(16.98)
Average			55.60	

Source : Annual reports of SICL

Table No. 10

Total Debt to Total Capital Ratio of NIL

(Amount in NRs.)

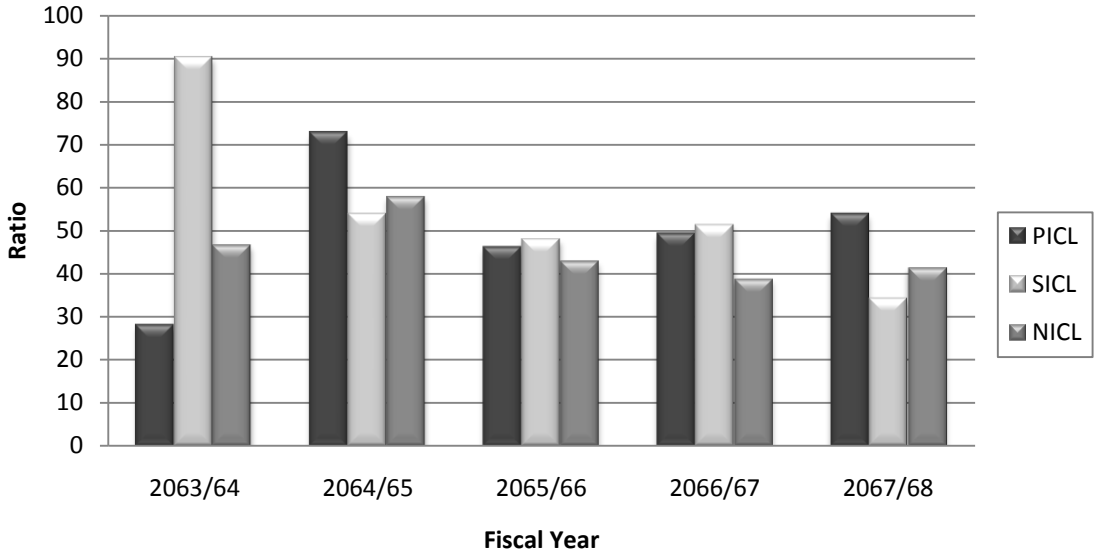
Fiscal Year	Total Debt	Total Capital	Ratio %	Change %
2063/64	38,275,452	82,195,229	46.57	-
2064/65	47,966,945	83,012,270	57.78	11.22
2065/66	61,388,136	143,251,684	42.85	(14.93)
2066/67	61,328,119	158,429,812	38.71	(4.14)
2067/68	71,596,473	173,414,047	41.29	2.58
Average			45.44	

Source : Annual reports of NIL

The above data can be presented in the following figure:

Figure No. 7

Total Debt to Total Capital Ratio of PICL, SICL & NIL



According to above calculation, the calculated debt to total capital ratio of PICL shows the fluctuating trend. The ratio in fiscal year 2063/64 is 28.19%. Similarly, ratio in fiscal year 2064/65, 2065/66, 2066/67 and 2067/68 are 72.63%, 46.12%, 49.24% and 53.83% respectively. Its average is 50.00%, which means that about 50.00% of total capital is employed by total debt and rest 50.00% is financed through shareholder's equity. The ratio of PICL range between 72.63% to 28.19%. The calculation shows that the ratios of fiscal year 2064/65 and 2067/68 are greater than average. The greater ratio implies that high riskiness.

While SICL has also its ratio in fluctuating trend. The debt to total capital ratio in the fiscal year 2063/64 constitute 90.21% then afterwards 53.95% , 48.08%, 51.37% and 34.38% in the fiscal year 2064/65, 2065/66, 2066/67 and 2067/68 respectively. The ratio of SICL range between 90.21% to 34.38%. The average of total debt to capital ratio of SICL is 55.60%, which means that about 55.60% of total capital is employed by total debt and rest 44.40% is financed by shareholders equity. The calculation shows that the ratio of fiscal year 2063/64, 2064/65 and 2066/67 are greater than average. The greater ratio implies that high riskiness.

Likewise, the ratio of NIL is found fluctuating in every year. The debt to total capital ratio in the fiscal year 2063/64 is 46.57% then afterwards 57.78% , 42.85%, 38.71% and 41.29% in the fiscal year 2064/65, 2065/66, 2066/67 and 2067/68 respectively. The ratio of NIL range between 57.78% to 38.71%. The average debt to total capital ratio of NIL is found to be 45.44% which means that about 45.44% of total capital is employed by total debt and rest 54.56% is financed by shareholders equity. The above calculation shows that the ratios of fiscal year 2063/64 and 2064/65 are greater than average.

4.2.4 Analysis of Net Profit Margin Ratio

This ratio of net profit on sales indicates the firm's capacity to withstand adverse economic condition. A firm with a high net profit ratio would be in the advantageous position to service in the face of falling selling prices, rising costs of production or declining demand for the products and vice versa. It indicates that the efficiency of management in manufacturing, administrating and selling of the product or services. If net profit is inadequate, the firm will fail to achieve satisfactory return on owner's equity. In order to get net profits operating expenses, interest and taxes expenses are deducted from gross profit.

Note : here net sales are stand as total premium collection.

Table No. 11

Analysis of Net Profit Ratio of PICL

(Amount in NRs.)

Fiscal Year	EAT	Premium Collection	Net Profit Ratio %	Change %
2063/64	5,529,678	129,039,104	4.29	-
2064/65	10,464,171	236,824,438	4.42	0.13
2065/66	13,633,680	141,034,038	9.67	5.25
2066/67	16,975,966	304,455,310	5.58	(4.09)
2067/68	18,867,200	1,680,042,262	1.12	(4.45)
Average			5.01	

Source : Annual reports of PICL

Table No. 12

Analysis of Net Profit Ratio of SICL

(Amount in NRs.)

Fiscal Year	EAT	Premium Collection	Net Profit Ratio %	Change %
2063/64	11,561,097.00	230,545,000	5.01	-
2064/65	15,405,472.00	246,454,000	6.25	1.24
2065/66	42,675,724.68	273,360,000	15.61	9.36
2066/67	56,002,012.44	430,942,000	13.00	(2.62)
2067/68	11,561,097.00	532,718,000	17.05	4.06
Average			11.38	

Source : Annual reports of SICL

Table No. 13

Analysis of Net Profit Ratio of NIL

(Amount in NRs.)

Fiscal Year	EAT	Premium Collection	Net Profit Ratio %	Change %

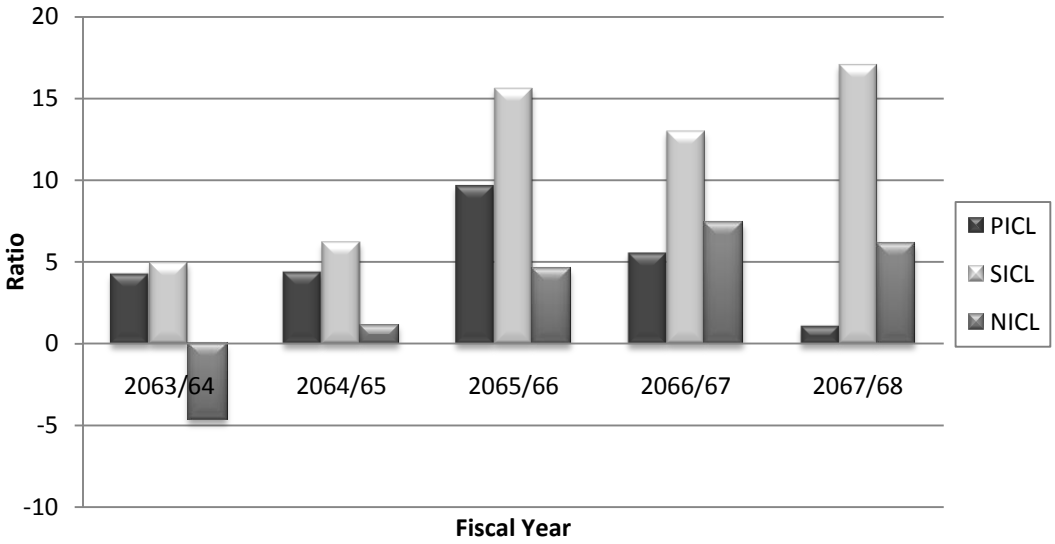
2063/64	(5,515,681)	118,864,828	(4.64)	-
2064/65	1,634,081	143,569,151	1.14	5.78
2065/66	7,954,522	172,498,471	4.61	3.47
2066/67	18,591,858	251,503,559	7.39	2.78
2067/68	17,195,027	281,691,374	6.10	(1.29)
Average			2.92	

Source : Annual reports of NIL

The above data can be presented in the following figure:

Figure No. 8

Net Profit Ratio of PICL, SICL & NIL



From the above calculation PICL has 5.01% of net profit ratio in average, which means that PICL has earned after tax is 5.01% of its total premium collection during the study period. Net profit ratio of 9.67% of fiscal year 2065/66 is highest and 1.12% is lowest of year 2067/68. In fiscal year 2063/64, 2064/65 and 2066/67 stands as 4.29%, 4.42% and 5.58% respectively. While comparing this ratio, the ratio of fiscal year 2065/66 and 2066/67 are greater than the average and 2063/64, 2064/65 and 2067/68 are lower than average. The above calculation shows that net profit ratio of PICL is fluctuating in nature.

While SICL has also its ratio in fluctuating trend. The net profit ratio in the fiscal year 2063/64 is 5.01%. Similarly, ratio in fiscal year 2064/65, 2065/66, 2066/67 and 2067/68

are 6.25%, 15.61%, 13% and 17.05 % respectively. Its average net profit is 11.38%. The ratios of fiscal year 2065/66, 2066/67 and 2067/68 are greater than average and the ratio of fiscal year 2063/64, 2064/65 and 2067/68 are lower than average. The above calculation also shows that net profit ratio of SICL is fluctuating in nature.

Likewise, the ratio of NIL is found fluctuating in every year. The net profit ratio in the fiscal year 2063/64 is -4.64% because of negative EAT. Then it goes on increasing in following years. The ratio in the fiscal year 2064/65, 2065/66, 2066/67 and 2067/68 are 1.14 %, 4.61 %, 7.39 % and 6.1 % respectively. The average net profit ratio of NIL is found to be 2.92%. The calculation done above shows that the ratios of fiscal year 2065/66, 2066/67 and 2067/68 are greater than average and the ratio of fiscal year 2063/64 and 2064/65 are lower than the average.

While comparing the ratio between PICL, SICL and NIL, operating efficiency of SICL is found better than that of PICL and NIL. Average ratio of SICL is higher than of PICL by 6.37% and NIL by 8.46%.

4.2.5 Analysis of Return on Equity (ROE)

It shows the relationship between net profit and shareholder's equity. The shareholder's equity includes preference share capital, ordinary or common share capital, share premium and undistributed profit. Management objective is to generate the maximum return on shareholder's investment in firms. ROE is therefore the best signals measures of the company success fulfilling its goals.

Thus, the ratio is of great interest and value to the present as well as perspective shareholders and also of great concern to management, which has the responsibility of maximizing the owner's welfare. The ratio equals the net profit after taxes dividing by common stockholder's equity. The ROE ratio of PICL, SICL and NIL are presented and interpreted in the following ways.

Table No. 14

Analysis of Return on Equity (ROE) of PICL

(Amount in NRs.)

Fiscal Year	EAT	Share Holder's Equity	ROE %	Change %
2063/64	5,529,678	94,830,902	5.83	-
2064/65	10,464,171	100,062,988	10.46	4.63
2065/66	13,633,680	135,125,986	10.09	(0.37)
2066/67	16,975,966	135,600,288	12.52	2.43
2067/68	18,867,200	142,470,435	13.24	0.72
Average			10.43	

Source : Annual reports of PICL

Table No. 15

Analysis of Return on Equity (ROE) of SICL

(Amount in NRs.)

Fiscal Year	EAT	Share Holder's Equity	ROE %	Change %
2063/64	11,561,097.00	134,946,175.00	8.57	-
2064/65	15,405,472.00	155,303,631.00	9.92	1.35
2065/66	42,675,724.68	165,356,535.24	25.81	15.89
2066/67	56,002,012.44	179,976,790.90	31.12	5.31
2067/68	90,837,459.98	248,177,172.87	36.60	5.49
Average			22.40	

Source : Annual reports of SICL

Table No. 16

Analysis of Return on Equity (ROE) of NIL

(Amount in NRs.)

Fiscal Year	EAT	Share Holder's Equity	ROE %	Change %
2063/64	(5,515,681)	82,195,229	(6.71)	-
2064/65	1,634,081	82,195,229	1.99	8.70
2065/66	7,954,522	138,457,382	5.75	3.76
2066/67	18,591,858	144,471,564	12.87	7.12

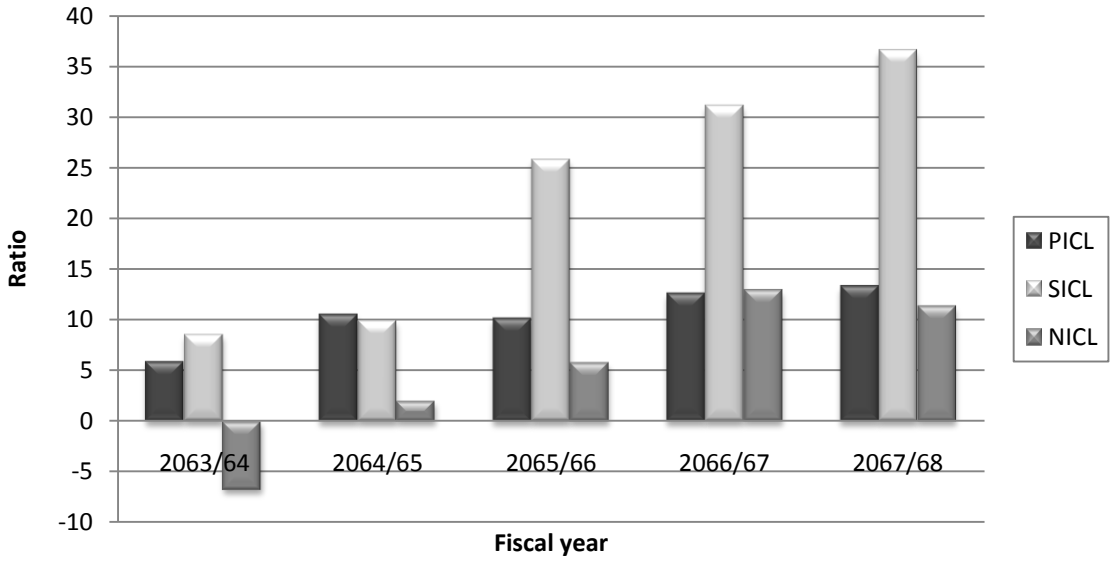
2067/68	17,195,027	152,237,347	11.29	(1.57)
Average			5.04	

Source : Annual reports of NIL

The above data can be presented in the following figure:

Figure No. 9

Return on Equity of PICL, SICL & NIL



The individual trend analysis of PICL, SICL and NIL of return on equity ratio is in fluctuating nature. The above table shows that the ROE of PICL range between 13.24% to 5.83%. This ratio of PICL stands on fiscal year 2063/64, 2064/65, 2065/66, 2066/67 and 2067/68 are 5.83%, 10.46%, 10.09%, 12.52% and 13.24% respectively. In average it has provided 10.43% return to shareholders as a return on their investment.

Similarly range of ROE of SICL is 36.6% to 8.57%. This ratio of SICL stands on fiscal year 2063/64, 2064/65, 2065/66, 2066/67 and 2067/68 are 8.57%, 9.92%, 25.81%, 31.12% and 36.6% respectively. In average SICL has provided 22.40% return to shareholders as a return on their investment. Generally this ratio indicates how well the firm has used the resource of the owners. High ratio is preferable.

Likewise, the range of ROE of NIL is 12.87% to -6.71%. The minimum range is negative due to negative EAT of that year. This ratio of NIL stands on fiscal year 2063/64, 2064/65,

2065/66, 2066/67 and 2067/68 are -6.71%, 1.99%, 5.75%, 12.87% and 11.29% respectively. In average NIL has provided 5.04% return to shareholders as a return on their investment.

Generally this ratio indicates how well the firm has used the resource of the owners. High ratio is preferable. Comparing these three firms' we can say that SICL has higher ROE than that of ROE of PICL and NIL.

4.2.6 Analysis of Return on Assets (ROA)

Return on assets ratio measure the probability of the firm that explains a firm to earn satisfactory return of all financial resources invested in the firm's assets; otherwise its survival is threatened. The ratio explains net income for each unit of assets. Higher ratio indicates efficiency in utilizing its overall resources and vice versa. Rate of return on assets is major tools to judge the operational efficiency of firm. This ratio of PICL, SICL and NIL are presented and interpreted as following ways.

Table No. 17

Analysis of Return on Assets (ROA) of PICL

(Amount in NRs.)

Fiscal Year	EAT	Total Assets	ROA %	Change %
2063/64	5,529,678	196,352,940	2.82	-
2064/65	10,464,171	237,719,740	4.40	1.59
2065/66	13,633,680	291,851,581	4.67	0.27
2066/67	16,975,966	361,328,982	4.70	0.03
2067/68	18,867,200	393,571,413	4.79	0.10
Average			4.28	

Source : Annual reports of PICL

Table No. 18

Analysis of Return on Assets (ROA) of SICL

(Amount in NRs.)

Fiscal Year	EAT	Total Assets	ROA %	Change %
2063/64	11,561,097.00	351,013,057.00	3.29	-
2064/65	15,405,472.00	387,183,942.00	3.98	0.69
2065/66	42,675,724.68	459,578,652.53	9.29	5.31
2066/67	56,002,012.44	658,944,174.73	8.50	(0.79)
2067/68	90,837,459.98	853,137,640.94	10.65	2.15
Average			7.14	

Source : Annual reports of SICL

Table No. 19

Analysis of Return on Assets (ROA) of NIL

(Amount in NRs.)

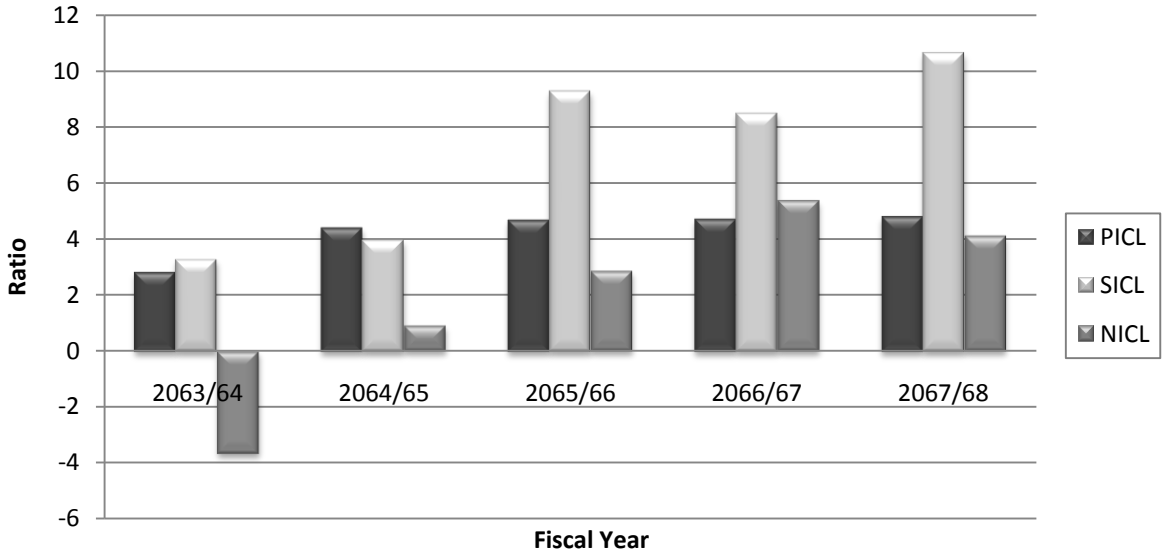
Fiscal Year	EAT	Total Assets	ROA %	Change %
2063/64	(5,515,681.00)	151,138,046.00	(3.65)	-
2064/65	1,634,081.00	179,004,432.00	0.91	4.56
2065/66	7,954,522.00	279,279,702.00	2.85	1.94
2066/67	18,591,858.00	346,800,841.00	5.36	2.51
2067/68	17,195,027.00	419,698,022.00	4.10	(1.26)
Average			1.91	

Source : Annual reports of NIL

The above data can be presented in the following figure:

Figure No. 10

Return on Assets of PICL, SICL & NIL



From above Calculation ROA ratio of PICL is increasing trend. This ratio of PICL range up to 4.79% to 2.82%. This ratio of PICL stands on fiscal year 2063/64, 2064/65, 2065/66, 2066/67 and 2067/68 are 2.82%, 4.40%, 4.67%, 4.70% and 4.79% respectively. The average ROA of PICL is 4.28% as employing its total assets. While as the ROA ratio of SICL and NIL is in fluctuating trend. The range of ROA ratio of SICL is 10.65% to 3.29%. This ratio of SICL stands on fiscal year 2063/64, 2064/65, 2065/66, 2066/67 and 2067/68 are 3.29%, 3.98%, 9.29%, 8.50% and 10.65% respectively. The average ROA of SICL is 7.14% which means that SICL has earned 7.14% as a employing its total assets. Similarly, the range of ROA ratio NIL is 5.36% to -3.65%. The negative percentage is obtained because of the negative value of EAT. This ratio of NIL stands on fiscal year 2063/64, 2064/65, 2065/66, 2066/67 and 2067/68 are -3.65%, 0.91%, 2.85%, 5.36% and 4.10% respectively. The average ROA of NIL is 1.91% which means that SICL has earned 1.91% as employing its total assets.

The average of SICL is greater than PICL and NIL. So we can say that SICL has been able to utilize its resources in most profitable projects than that of PICL and NIL.

4.2.7 Analysis of Earning Per Share

Earnings per share show the profitability of the firm on a per share basis. It does not reflect how much is paid as dividend and how much is retained in the business. EPS is one of the most widely used measures of the firm's performance. It is an important index of insurance company's performance and the investors relay heavily on it for their investment decision. EPS of PICL, SICL and NIL can be presented and interpreted in the following ways:

Table No. 20

Analysis of Earning Per Share of PICL

(Amount in NRs.)

Fiscal Year	EAT	No. of Shares	EPS (in Rs.)	Change (in Rs.)
2063/64	5,529,678	30,000,000	18.43	-
2064/65	10,464,171	63,000,000	16.61	(1.82)
2065/66	13,633,680	102,000,000	13.37	(3.24)
2066/67	16,975,966	102,000,000	16.64	3.28
2067/68	18,867,200	102,000,000	18.50	1.85
Average			16.71	

Source : Annual reports of PICL

Table No. 21

Analysis of Earning Per Share of SICL

(Amount in NRs.)

Fiscal Year	EAT	No. of Shares	EPS (in Rs.)	Change (in Rs.)
2063/64	11,561,097.00	78540000	14.72	-
2064/65	15,405,472.00	102102000	15.09	0.37
2065/66	42,675,724.68	102102000	41.80	26.71
2066/67	56,002,012.44	112312200	49.86	8.07
2067/68	90,837,459.98	129159030	70.33	20.47
Average			38.36	

Source : Annual reports of SICL

Table No. 22

Analysis of Earning Per Share of NIL

(Amount in NRs.)

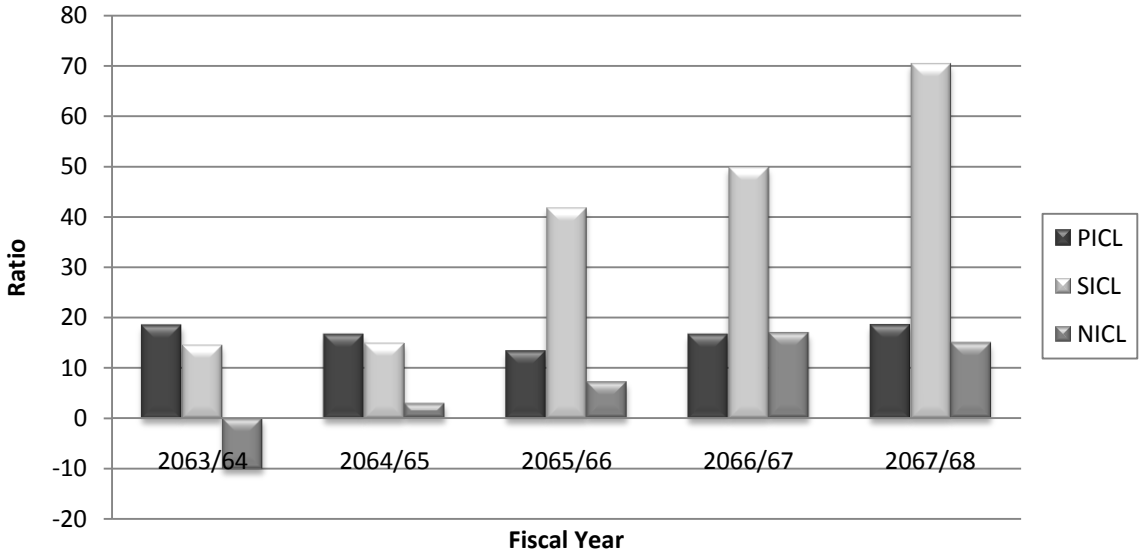
Fiscal Year	EAT	No. of Shares	EPS (in Rs.)	Change (in Rs.)
2063/64	(5,515,681.00)	55,000,000	(10.03)	-
2064/65	1,634,081.00	55,000,000	2.97	13.00
2065/66	7,954,522.00	110,000,000	7.23	4.26
2066/67	18,591,858.00	110,000,000	16.90	9.67
2067/68	17,195,027.00	115,500,000	14.89	(2.01)
Average			6.39	

Source : Annual reports of NIL

The above data can be presented in the following figure:

Figure No. 11

Earning Per Share of PICL, SICL and NIL



From the above calculations value of EPS of PICL is in decreasing trend in 2063/63 to 2065/66 then after it goes on increasing. It has been ranged between Rs. 18.50 to Rs.13.37. In fiscal year 2063/64, 2064/65, 2065/66, 2066/67 and 2067/68 are Rs. 18.43, Rs. 16.61, Rs. 13.37, Rs. 16.64 and Rs. 18.50 respectively. The average EPS of PICL is Rs. 16.71.

Same way SICL has almost its EPS is in increasing trend. The range of EPS of SICL is Rs. 70.33 to Rs. 14.72. In fiscal year 2063/64, 2064/65, 2065/66, 2066/67 and 2067/68 this ratio stand as Rs. 14.72, Rs. 15.09, Rs. 41.80, Rs. 49.86and Rs. 70.33 respectively. The average EPS of SICL is Rs. 38.36.

Similarly, EPS of NIL is also in increasing trend. EAT of NIL is negative in fiscal year 2063/64, the EPS is also negative that year. Only in the year 2067/68 this ratio falls down, otherwise other year is in increasing trend. The range of EPS of NIL is Rs. 16.90 to Rs. -10.03. In fiscal year 2063/64, 2064/65, 2065/66, 2066/67 and 2067/68 this ratio stand as Rs.-10.03, Rs. 2.97, Rs. 7.23, Rs. 16.90 and Rs. 14.89 respectively. The average EPS of SICL is Rs. 6.39.

Comparing these three companies SICL has higher EPS then PICL and NIL. So we can say that SICL gives the strength of the share in the market.

4.2.8 Analysis of Capital Structure

Capital structure analysis plans refers to the comparison of long term debt and equity and preference share capital including reserve and surplus. In other words, capital structure is the composition of debt and equity that comprises a firm financing of its assets. Bothe debt and equity are used in largest corporations. Theories are developed to analyze the capital structure. But here following these approaches are considered to analysis the capital structure.

4.2.8.1 Total Value of Firm

The total value of firm is simply obtained by adding the value of debt and value of equity. Here in our calculation only total debt and shareholders equity are taken for calculation. However, the actual value of the company may not be applicable by considering only long term debt.

Total value of PICL, SICL and NIL has been calculated as follows.

Table No. 23

Total Value of the Firm of PICL

(Amount in NRs.)

Fiscal Year	Value of debt	Share holder's Equity	Value of Firm (in Rs.)
2063/64	26,736,882	94,830,902	121,567,784
2064/65	76,475,143	100,062,988	176,538,131
2065/66	67,883,331	135,125,986	203,009,317
2066/67	76,807,401	135,600,288	212,407,689
2067/68	92,742,980	142,470,435	235,213,415
Average			189,747,267.20

Source : Annual reports of PICL

Table No. 24

Total Value of the Firm of SICL

(Amount in NRs.)

Fiscal Year	Value of debt	Share holder's Equity	Value of Firm (in Rs.)
2063/64	121,730,778	134,946,175	256,676,953
2064/65	87,933,832	155,303,631	243,237,463
2065/66	93,462,830	165,356,535	258,819,365
2066/67	121,743,385	179,976,791	301,720,176
2067/68	112,723,820	248,177,173	360,900,993
Average			284,270,989.90

Source : Annual reports of SICL

Table No. 25

Total Value of the Firm of NIL

(Amount in NRs.)

Fiscal Year	Value of debt	Share holder's Equity	Value of Firm (in Rs.)
2063/64	38,275,452	82,195,229	120,470,681
2064/65	47,966,945	82,195,229	130,162,174
2065/66	61,388,136	138,457,382	199,845,518
2066/67	61,328,119	144,471,564	205,799,683
2067/68	71,596,473	152,237,347	223,833,820
Average			176,022,375.20

Source : Annual reports of NIL

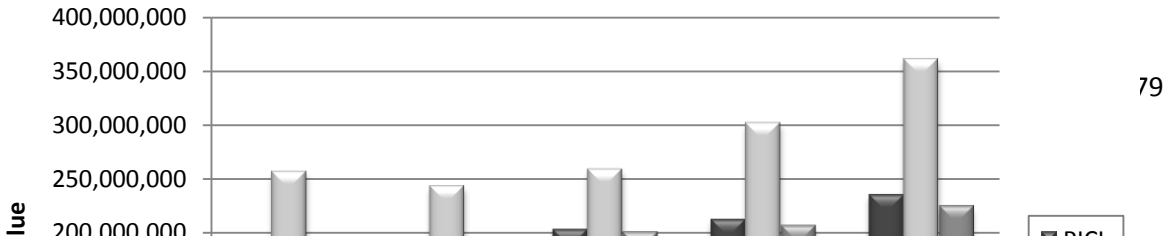
Above table shows that the value of PICL are in increasing trend every year. In fiscal year 2064/65 company has issued Rs. 76,475,143 as debt and Rs. 100,062,988 Shareholder equity. Thus the total value of PICL is Rs. 176,538,131 But this value in fiscal year 2065/66 is increased although the value of debt is in decreasing trend because; in this year value of equity is in increasing trend. So in our study period the average value of PICL is Rs. 189,747,267.20 and below bar diagram shows the increasing trend of PIC's total value observed during the study period.

As same time the total value of SICL are also in fluctuating trend. The average value of SICL is Rs. 284,270,989.90. Similarly, the total value of the NIL is in increasing trend as well. The average value of NIL is 176,022,375.20. In fiscal year 2063/64 company has issued Rs. 38,275,452 as debt and Rs. 82,195,229 Shareholder equity. Thus the total value of PICL is Rs. 120,470,681 But this value in fiscal year 206/65 is increased to Rs. 130,162,174 although the value of equity remains the same because; in this year value of debt is in increasing trend. The below bar diagram shows the increasing trend of total value observed during the study period.

The above data can be presented in the following figure:

Figure No. 12

Value of Firm of PICL, SICL & NIL



As an optimal capital structure is one which maximizes the market value of the firm and minimizes the overall capitalization rate. By analyzing above figure it is clear that capital structure in fiscal year 2067/68 is best among our observation period for PICL, SICL and NIL as well. From above table reveals that increased use of debt funds ensures the optimal capital structure. Thus, the firm should try to maximize value by using optimal debt equity mix.

4.2.8.2 Analysis of Overall Capitalization Rate (NI approach)

One crucial assumption of NI approach is that "the use of debt doesn't change risk perception of investor, as a result, the equity capitalization rate Ke, and debt capitalization Kd, remains constant with the change in leverage. Thus, according to this approach, the higher use of cheap debt lowers the equity capitalization rate of firm and consequently increases the total value. Now, by considering this implication we can calculate overall capitalization collected by the company from different sources. Overall capitalization rate Ko, is calculated as per NI approach, which means Ko is calculated EBIT dividend by value of the firm. Overall capitalization rate of PICL, SICL and NIL can be presented and interpreted in following ways.

Table No. 26

Analysis of Overall capitalization Rate of PICL

(Amount in NRs.)

Fiscal Year	EBIT	Value of the Firm	Ko %	Change %

2063/64	76,415,44	121,567,784	6.29	-
2064/65	16,023,163	176,538,131	9.08	2.79
2065/66	19,521,193	203,009,317	9.62	0.54
2066/67	24,264,334	212,407,689	11.42	1.81
2067/68	27,819,291	235,213,415	11.83	0.40
Average			9.65	

Source : Annual reports of PICL

Table No. 27

Analysis of Overall capitalization Rate of SICL

(Amount in NRs.)

Fiscal Year	EBIT	Value of the Firm	Ko %	Change %
2063/64	16,090,774.00	256,676,953	6.27	-
2064/65	23,265,549.00	243,237,463	9.56	3.30
2065/66	61,752,580.68	258,819,365	23.86	14.29
2066/67	79,979,748.76	301,720,176	26.51	2.65
2067/68	131,414,458.12	360,900,993	36.41	9.90
Average			20.52	

Source : Annual reports of SICL

Table No. 28

Analysis of Overall capitalization Rate of NIL

(Amount in NRs.)

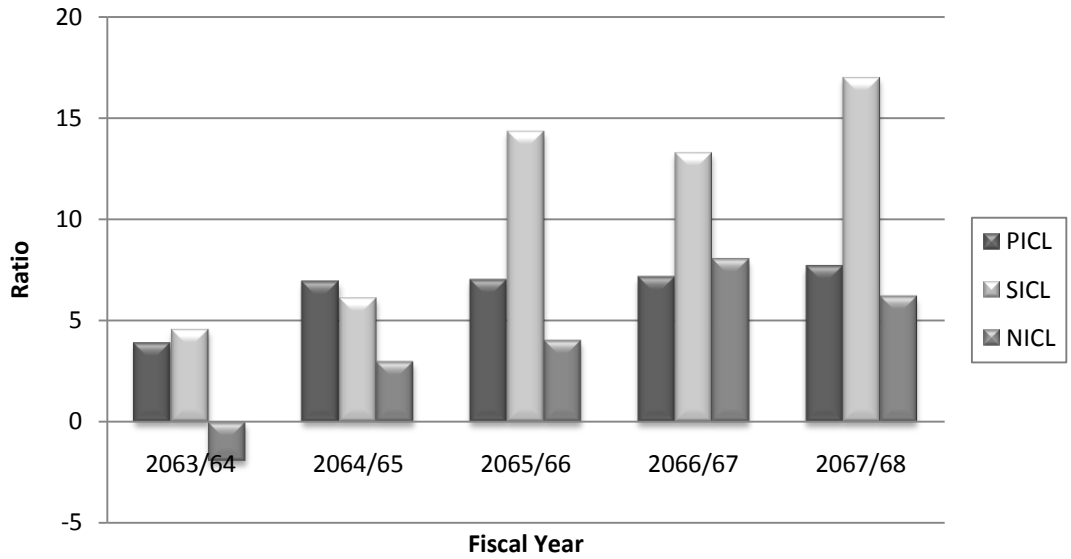
Fiscal Year	EBIT	Value of the Firm	Ko %	Change %
2063/64	(3,011,973)	120,470,681	(2.50)	-
2064/65	5,837,126	130,162,174	4.48	6.98
2065/66	11,125,556	199,845,518	5.57	1.08
2066/67	26,709,536	205,799,683	12.98	7.41
2067/68	24,613,064	223,833,820	11.00	(1.98)
Average			6.31	

Source : Annual reports of NIL

The above data can be presented in the following figure:

Figure No. 13

Overall Capitalization Rate of PICL, SICL & NIL



According to above calculation it shows that the overall capitalization rate of PICL is 9.65% in average. While comparing it in fiscal year only the rate of 2063/64, 2064/2065

and 2065/66 are less than average and remaining rates in fiscal year i.e. 2066/67 and 2067/68 are more than the average. In fiscal year 2063/64, overall capitalization rate is very low i.e. 6.29% , because in this year company has made very minimum EBIT. In fiscal year 2067/2068 this rate increases to 11.83% which is the highest because in this year has highest EBIT during our observation period.

As same overall capitalization rate of SICL is 20.52% in average. Overall capitalization rate of SICL in fiscal year 2063/64 and 2064/2065 are less than the average and in remaining year are more than average.

Similarly , NIL has its overall capitalization rate 6.31 % in average. The rate is negative in fiscal year 2063/2064 due to negative EBIT (loss) that year. Overall capitalization rate of NIL in fiscal year 2063/64, 2064/2065 and 2065/66 are less than the average and in remaining year are more than average.

Both companies SICL and NIL have overall capitalization rate in fluctuating trend. Whereas, PICL has the rate in increasing trends in year after year.

4.2.8.3 Analysis of Equity Capitalization rate (NOI Approach)

The NOI approach focuses on the Equity capitalization rate and appears as irrelevancy theory of capital structure. According to this approach overall capitalization rate, Ko as well as the debt capitalization rate Kd, is independent of degree of leverage. However, the equity capitalization rate is obtained simply dividing the earning before tax market value of equity. Thus, under NOI approach, the equity capitalization rate of PICL, SICL and NIL can be calculated, presented and interpreted as following ways.

Table No. 29

Analysis of Equity capitalization Rate of PICL

(Amount in NRs.)

Fiscal Year	EBT	Share Holder's Equity	Ke %	Change %

2063/64	7,641,544	94,830,902	8.06	-
2064/65	16,023,163	100,062,988	16.01	7.96
2065/66	19,521,193	135,125,986	14.45	(1.57)
2066/67	24,264,334	135,600,288	17.89	3.45
2067/68	27,819,291	142,470,435	19.53	1.63
Average			15.19	

Source : Annual reports of PICL

Table No. 30

Analysis of Equity capitalization Rate of SICL

(Amount in NRs.)

Fiscal Year	EBT	Share Holder's Equity	Ke %	Change %
2063/64	16,090,774.00	134,946,175.00	11.92	-
2064/65	23,265,549.00	155,303,631.00	14.98	3.06
2065/66	61,752,580.68	165,356,535.24	37.35	22.36
2066/67	79,979,748.76	179,976,790.90	44.44	7.09
2067/68	131,414,458.12	248,177,172.87	52.95	8.51
Average			32.33	

Source : Annual reports of SICL

Table No. 31

Analysis of Equity capitalization Rate of NIL

(Amount in NRs.)

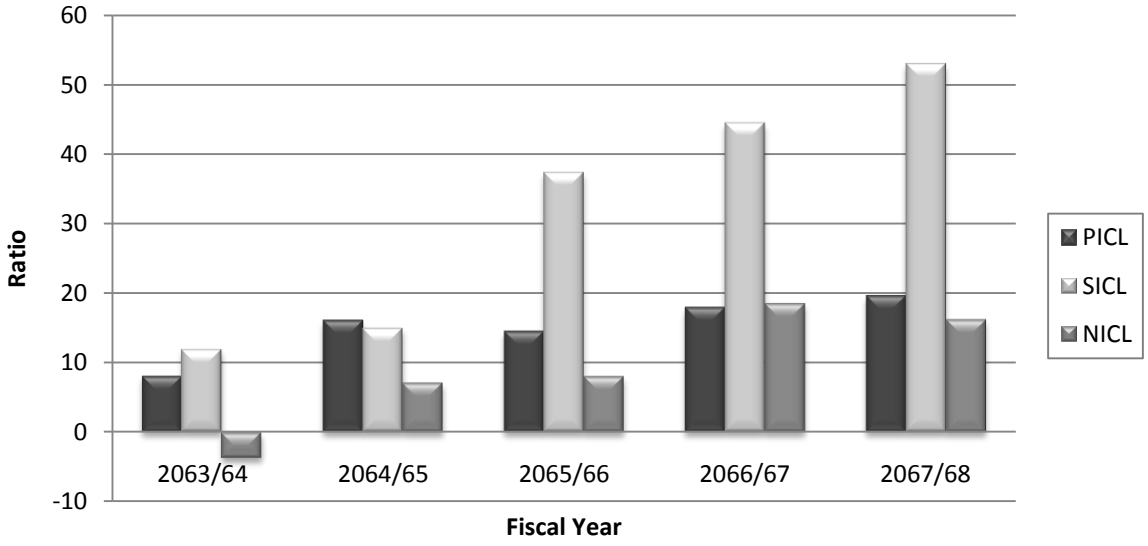
Fiscal Year	EBT	Share Holder's Equity	Ke %	Change %
2063/64	(3,011,973)	82,195,229	(3.66)	-
2064/65	5,837,126	82,195,229	7.10	10.77
2065/66	11,125,556	138,457,382	8.04	0.93
2066/67	26,709,536	144,471,564	18.49	10.45
2067/68	24,613,064	152,237,347	16.17	(2.32)
Average			9.23	

Source : Annual reports of NIL

The above data can be presented in the following figure:

Figure No. 14

Equity capitalization Rate of PICL, SICL & NIL



From the above calculated value it shows that the equity capitalization rate of PICL is in fluctuating trend over the study period. Equity capitalization rate of PICL during fiscal year

2063/64, 2064/2065, 2065/66, 2066/67 and 2067/68 are 8.06%, 16.01%, 14.45%, 17.89% and 19.53% respectively. Equity capitalization rate of PICL is 15.19% in average. As comparing average in fiscal year 2063/64 and 2065/66 is lower than the average but remaining year is higher than the average.

Same time equity capitalization rate of SICL is in increasing trend. Equity capitalization rate of SICL range between 52.95% to 11.92%. the average of Equity capitalization rate during our study periods is 32.33%, while comparing it in fiscal year 2063/64 and 2064/2065 is less than average and remaining year is more than average.

Similarly, the equity capitalization rate of NIL is in fluctuating trend because from fiscal year 2063/64 to 2066/67 the rate in increasing but in fiscal year 2067/68 it slightly decreases by 2.32%. the ROE rate is negative in fiscal year 2063/2064 due to negative EBT (loss) that year. The average of equity capitalization rate during our study is 9.23%, while comparing it in fiscal year, 2063/64, 2064/65 and 2065/66 is less than the average and remaining year is more than average.

4.2.9 EBIT-EPS Analysis

The EBIT-EPS analysis is one of the most important financial tools for analyzing the effects of leverage. Any fluctuation in EBIT is magnified on the earning per share by operation of leverage. The greater degree of leverage, the wider is the variation in the EPS given in any variation in EBIT. The choice of the combination of the different source i.e. capital structure, would be one which, given level of EBIT, would ensure the largest EPS. Thus to analysis this relationship, EBIT and EPS of PICL, SICL and NIL over fiscal year are presented and interpreted in following ways.

Table No. 32

Analysis of EBIT and EPS of PICL

(Amount in NRs.)

Fiscal Year	EBIT	EPS
2063/64	7,641,544	18.43
2064/65	16,023,163	16.61

2065/66	19,521,193	13.37
2066/67	24,264,334	16.64
2067/68	27,819,291	18.50
Average	19,053,905	16.71

Source : Annual reports of PICL

Table No. 33

Analysis of EBIT and EPS of SICL

(Amount in NRs.)

Fiscal Year	EBIT	EPS
2063/64	16,090,774.00	14.72
2064/65	23,265,549.00	15.09
2065/66	61,752,580.68	41.80
2066/67	79,979,748.76	49.86
2067/68	131,414,458.12	70.33
Average	62,500,622.11	38.36

Source : Annual reports of SICL

Table No. 34

Analysis of EBIT and EPS of NIL

(Amount in NRs.)

Fiscal Year	EBIT	EPS
2063/64	(3,011,973)	(10.03)
2064/65	5,837,126	2.97
2065/66	11,125,556	7.23
2066/67	26,709,536	16.90
2067/68	24,613,064	14.89
Average	13,054,661.80	6.39

Source : Annual reports of NIL

Above table shows the increasing trend of EBIT of PICL from fiscal year 2063/64 to 2067/68 but the EPS of PICL shows decreasing trend from 2063/64 to 2065/66 and then after in 2066/67 and 2067/68 is shows increasing trend. The EBIT of PICL are Rs.

7,641,544, Rs. 16,023,163, Rs. 19,521,19, Rs. 24,264,334 and Rs. 27,819,291 during the fiscal year 2063/64, 2064/65, 2065/66, 2066/67 to 2067/68 respectively. EPS of PICL during the fiscal year 2063/64, 2064/65, 2065/66, 2066/67 to 2067/68 is Rs. 18.43, Rs. 16.61, Rs.13.37, Rs.16.64 and Rs. 18.50 respectively. The average of EBIT and EPS of PICL is Rs. 19,053,905 and Rs. 16.71 respectively.

As same time trend of EBIT and EPS of SICL are in increasing trend in every year of our study. The EBIT of SICL is Rs. 16,090,774, Rs. 23,265,549, Rs. 61,752,580.68, Rs. 79,979,748.76 and Rs. 131,414,458.12 during the fiscal year 2063/64, 2064/65, 2065/66, 2066/67 to 2067/68 respectively. EPS of SICL is Rs. 14.72, Rs. 15.09, Rs. 41.80, Rs. 49.86 and Rs. 70.33 during the fiscal year 2063/64, 2064/65, 2065/66, 2066/67 to 2067/68 respectively. Average of EBIT and EPS of SICL is Rs. 131,414,458.12 and Rs. 38.36 respectively.

During the same study period of NIL, EBIT and EPS are in increasing trend except in fiscal year 2067/68. Average of EBIT and EPS of NIL is Rs. 13,054,661.80 and Rs. 6.39 respectively. The EBIT in fiscal year 2063/2064 is negative due to loss that year. The EBIT of NIL is Rs. (3,011,973) Rs. 5,837,126, Rs. 11,125,556, Rs. 26,709,536 and Rs. 24,613,064 during the fiscal year 2063/64, 2064/65, 2065/66, 2066/67 to 2067/68 respectively. EPS of NIL is Rs. (10.03), Rs. 2.97, Rs. 7.23, Rs. 16.90 and Rs. 14.89 during the fiscal year 2063/64, 2064/65, 2065/66, 2066/67 to 2067/68 respectively.

4.2.10 Statistical Analysis

The method of measuring relationship between two or more variables as well as their significance can be analyzed by using help of statistical tools. In our study different relationships have been calculated with help of correlation co-efficient. Correlation co-efficient indicates the relationship between dependent and independent variables. As a same time probable error of the correlation co-efficient is the measure of the value of correlation co-efficient. It test the calculated value of correlation co-efficient is significant or not.

In this analysis, correlation co-efficient between following variables are calculated and testing probable error for significant correlation are calculated and analyzed as following ways.

4.2.10.1 Analysis of correlation co-efficient and P.E. between Debt and SHE

The relationship between debt and shareholders equity has been analyzed by correlation co-efficient formula. In order to find out the relationship between these two variables the correlation co-efficient has been calculated of PICL, SICL and NIL in appendix 1, 2 and 3. The calculated correlation and their respective probable error have been shown in the following table:

Table No. 35

Correlation Coefficient and their respective P.E. between Debt and SHE

Name of Firm	r	P.E.	Relationship	Effects
PICL	0.70	0.154	Positive	Not significant
SICL	0.15	0.295	Positive	Not significant
NIL	0.94	0.035	Positive	Significant

Source : Appendix 1, Appendix 2 and Appendix 3

The calculated correlation co-efficient between debt and shareholders' equity of PICL is 0.70, which shows the positive relationship between debt and SHE. Which means that an increase in debt ratio varies to increase in SHE. But the value of 'r' is less than six times of P.E, so the value of 'r' is not significant i.e. there is not significant relationship between debt and shareholder's equity of PICL.

As same time correlation co-efficient between these two variables of SICL is 0.15, which shows the positive relationship between debt and SHE. The P.E. of SICL is 0.295, which clarifies that the relationship between debt and equity is not significant because the correlation co-efficient is less than probable error.

Above calculated correlation coefficient between debt and share holder's equity of NIL is 0.94, which shows the positive correlation between debt and SHE. That means the increase in debt causes to increase in SHE. Considering the value of 'r' is greater than six times of P.E., so the value of 'r' is significant i.e. there is significant relationship between Debt and shareholder's Equity of NIL.

4.2.10.2 Analysis of Correlation Co-efficient and P.E. between Overall Capitalization Rate (Ko) and Debt-Equity Ratio

Correlation co-efficient between overall capitalization rates Ko, in terms of total debt to net worth is calculated in order to measure whether increase in the debt-equity ratio decreases overall capitalization rate of firm's. After calculation, which is shown in Appendix 4, 5 and 6, the correlation co-efficient and their respective probable error, following result is obtained for PICL and SICL has been shown in the following table.

Table No. 36

Correlation Coefficient and their respective P.E. between D/E Ratio and Ko

Name of Firm	r	P.E.	Relationship	Effects
PICL	0.65	0.174	Positive	Not significant
SICL	-0.70	0.154	Negative	Not significant
NIL	-0.30	0.274	Negative	Not significant

Source : Appendix 4, Appendix 5 and Appendix 6

The calculated correlation co-efficient between D/E ratio and overall capitalization rate (Ko) of PICL is 0.65, which shows the positive relationship between D/E ratio and Ko. That means the relationship between D/E ratio and Ko is positive, where increase in D/E ratio causes to increase in Ko. But the value of 'r' is less than six times of P.E, so the value of 'r' is not significant i.e. there is not significant relationship between D/E ratio and Ko of PICL.

As same time correlation co-efficient between these two variables of SICL is -0.70, which shows the negative relationship between D/E ratio and Ko. Where increase in D/E ratio causes to decrease in Ko and vice versa. The P.E. of SICL is 0.154, which clarifies that the relationship between D/E ratio and Ko is not significant because the correlation co-efficient is less than probable error.

Above calculated correlation coefficient between D/E ratio and Ko of NIL is -0.30, which shows the negative correlation between D/E ratio and Ko. That means the increase in D/E ratio causes to decrease in Ko and vice versa. Considering the value of 'r' is lesser the

value of P.E., so the value of 'r' is not significant i.e. there is not significant relationship between D/E ratio and Ko of NIL.

4.2.10.3 Analysis of Correlation Co-efficient and P.E. between Equity Capitalization Rate (Ke) and Debt to Equity Ratio:

The relationship between equity capitalization rate Ke, and Debt to Equity ratio interms of total debt to shareholders equity is calculated in order to measure whether increase in the debt to equity ratio increases the equity capitalization rate of firm. In order to find out the relationship between these two variables which is calculated in appendix 7, 8 and 9 the correlation coefficient has been calculated of PICL, SICL and NIL. The calculated value of 'r' and their respective probable error has been shown in the following table:

Table No. 37

Correlation Coefficient and their respective P.E. between D/E Ratio and Ke

Name of Firm	r	P.E.	Relationship	Effects
PICL	0.82	0.099	Positive	Significant
SICL	-0.64	0.178	Negative	Not significant
NIL	-0.26	0.281	Negative	Not significant

Source : Appendix 7, Appendix 8 and Appendix 9

The calculated correlation co-efficient between D/E ratio and equity capitalization rate (Ke) of PICL is 0.82, which shows the positive relationship between D/E ratio and Ke. That means the relationship between D/E ratio and equity capitalization rate (Ke) is positive, where increase in D/E ratio causes to increase in Ke. The value of 'r' is greater than six times of P.E, so the value of 'r' is significant i.e. there is significant relationship between D/E ratio and Ke of PICL.

As same time correlation co-efficient between these two variables of SICL is -0.64, which shows the negative relationship between D/E ratio and Ke. Where increase in D/E ratio causes to decrease in Ke and vice versa. The P.E. of SICL is 0.178, which clarifies that the relationship between D/E ratio and Ke is not significant because the correlation co-efficient is less than probable error.

Above calculated correlation coefficient between D/E ratio and Ke of NIL is -0.26, which shows the negative correlation between D/E ratio and Ke. That means the increase in D/E ratio causes to decrease in Ke and vice versa. Considering the value of 'r' is lesser the value of P.E., so the value of 'r' is not significant i.e. there is not significant relationship between D/E ratio and Ke of NIL.

4.2.11 Analysis of Primary Data

Although secondary data have provided a result but this section the opinions of various respondents are collected. The study is based on thirty five respondents included financial managers, asst. managers, chief executive officers, directors, financial analyst. The preformed of question asked during schedule interview is presented in appendix.

The basic objective of the firm's is to maximize shareholders wealth and it is possible through maintaining optimal capital structure by using debt. Our query was that do you think use of debt helps to maximize shareholders wealth, following result was obtained.

Table No. 38

Respondents over Affect of Debt on SHE

Items	No. of Respondents	Percentage
Yes	18	72%
No	5	20%
Don't Know	2	8%
Total	25	100%

The above table shows that 72% respondent agree that use of debt maximize SHE. While 20% did not agree towards the use of debt that use of debt cannot maximize SHE and remaining stay at did not know. In respect to this, majority if total respondents stated total

respondents stated towards the use of debt maximize SHE, due to advantage of tax deductibility on debt.

Whether the capital structure affects the profitability of firm is concerned to our study. For this we have next query that do you think that there is relationship between capital structure and profitability of firm, following result were obtained.

Table No. 39

Respondents over relationship of capital structure and profitability

Items	No. of Respondents	Percentage
Yes	20	80%
No	3	12%
Don't Know	2	8%
Total	25	100%

Regarding the relationship between capital structure and profitability, 80% of total respondent agrees with the statement that the source of capital affects the profitability of firm; however, 12 % of total respondent did not agree with the statement and 8 % of total respondent did not know about it.

In another query for respondent were asked to rank different source of financing the new project they are to undertake. Following result was obtained by using mean and ranks.

Table No. 40

Respondent's preference over financing Alternative

Items	Scale					Mean	Rank
	1	2	3	4	5		
Common Stock	1	5	8	9	2	3.24	3
Retained Earning	16	4	2	1	2	1.76	1
Preferred Stock	1	3	7	4	10	3.76	4

Debt	6	13	3	1	2	2.2	2
Other	1	2	8	2	12	3.88	5

Respondents were asked to rank different source of financing, by giving alternatives. On the basis of their response, they gave first priority to retained earnings. They gave second priority to debt, third to common stock and forth to preferred stock and at last they gave priority to others such as trade credit etc.

Another query to respondents were that what do you think the degree of risk associated with the firm will also increases if the leverage increases, alternatives provided to respondents to rank were risk increases, risk decreases, share price will increase and share price will decreases. Following table shows the result obtained by using ranking.

Table No. 41

Respondents preference over Debt ratio

Items	**Scale**				**Mean**	**Rank**
	1	**2**	**3**	**4**		
Risk increases	14	5	4	2	1.76	1
Risk decreases	1	3	4	17	3.48	4
Share price will increase	8	7	6	4	2.24	2
Share price will decrease	2	6	8	9	2.96	3

On the basis of response of respondents, they gave first priority to risk increases. It means that when leverage increases risks will also increases. Then share price will increases is to

give second rank/preference. Third and fourth rank is given to share price will decreases and risk decreases respectively.

Another query to respondents was that can following factors influences attributes on capital structure. The different factor affecting capital structure was given to respondents. The rank has been provided to different alternatives response from lowest to the highest i.e. 1 for strongly agree and 5 for strongly disagree and mean and rank has been found. Following result was obtained which can be in following table:

Table No. 42

Respondents over factor affecting capital structure

Attribute	Strongly agree	Agree	Indifference	Dis-agree	Strongly Disagree	Mean	Rank
Tax Rate	10	8	7	-	-	1.88	2
Interest Rate	12	10	2	1	-	1.68	1
Assets structure	3	9	11	2	-	2.48	5
Growth opportunity	3	4	13	3	2	2.88	6
Stability of sales and growth	8	10	7	-	-	1.96	3
Period of finance	8	4	12	1	-	2.24	4

Majority of respondents stated that interest rate is major determinants of capital structure. According to our survey, other important factors affecting capital structure decision are tax rate and stability of sales and growth. Period of financing, assets structure and growth opportunities are gave to be less important by respondents while observing factor affecting capital structure decision.

From above it is clear that interest rate is major determinants of capital structure decision along with tax rate and stability of sales in Nepalese context.

4.2.12 Major Findings

Major findings of the study are presented as follows:

- The total debt to shareholders equity ratio shows that PICL has higher ratio than that NIL and lower than that of SICL. From this we can that SICL is highly levered than PICL and NIL.
- Average of debt to total assets ratio for PICL is higher than that of SICL and NIL. It means that debt amount is comparatively high in PICL for assets financing.
- Long term debt to capital employed ratio shows the use of more long term debt in terms of capital employed by SICL than that of PICL and NIL.
- Net profit ratio on sales for SICL seems better than PICL and NIL in average. But PICL has better operating efficiency than that of NIL.
- Average ROE of SICL is higher than that of PICL and NIL. So SICL can give satisfactory return than that of PICL and NIL to their shareholders. But the investors of PICL get more return from than of NIL.
- Average ROA for SICL seems to higher than that of PICL and NIL. It means that production power of assets for SICL is highest.
- Average EPS of SICL seems higher than that of PICL and NIL. But both in both companies SICL and NIL, EPS are seem to be less attractive to investor as investment proposal.
- Total value of the firm of PICL is higher than that of NIL but lower than that of SICL. It means SICL value of SICL is highest. This value of PICL and NIL is in increasing trend and SICL is in fluctuating trend.
- Overall capitalization rate of SICL is higher than that of PICL and NIL. So we can say that SICL is better levered company in terms of overall capitalization rate.

- Equity capitalization rate of SICL is also higher than that of PICL and NIL. Higher Ke of SICL means that it has higher equity than that of both companies. By analyzing it is found that EPS of PICL and EPS-EBIT of NIL are in fluctuating trend. And also EBIT of PICL and EPS-EBIT of SICL are in increasing trend.
- The calculated correlation co-efficient between debt and shareholders equity shows the positive for PICL, SICL and NIL. These values of 'r' are not significant for PICL and SICL but significant for NIL.
- The calculated correlation co-efficient between D-E ratio and overall capitalization rate shows the negative correlation for SICL and NIL. But Positive for PICL. These values of 'r' are not significant for PICL, SICL and NIL.
- The calculated correlation co-efficient between D-E ratio and equity capitalization rate shows the negative correlation for SICL and NIL. Same time positively correlated for PICL. These values of 'r' are not significant for SICL and NIL but significant for PICL.

CHAPTER 5

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The concluding chapter deals with the findings in a logical and rational manner to the problems of research within the framework stated in introduction chapter. The relevance of the related ratios to the capital structure and their contribution to analysis are described in this chapter. Similarly, this chapter is also related with the findings and conclusions derived from the study of the selected insurance companies in Nepal. This chapter is comparison of conclusion of the study and lastly some practical recommendations are suggested to help to solve the problems observed on the basis of findings.

Insurance is a contract made by a company, society or by the state, to provide a guarantee of compensation for loss, damage, sickness, death etc. in return for regular payment. Insurance is a precautionary measure that has been taken by any party's to compensate for the loss incurred due to any undesirable events. It is an intangible service which helps to get rid from the painful sufferings caused by the uncertainties. It helps to create opportunities for employment and increase government revenues and to contribute significantly in the national development as well as to assist in the country's economic development. Thus the insurance provides a relief in the form of compensation packages in a period desperate need.

In Nepal, there are 25 insurance companies. One of them is fully government owned corporation. Out of these 25 insurance companies, one company is operating both life and nonlife insurance business. Whereas, 8 are holding life insurance and other 17 are non life companies. Among the insurance companies PICL, SICL and NIL are well established companies in Nepal and taken as sample for the study.

The study "A comparative Analysis on Capital Structure Management of General Insurance Companies In Nepal" has been prepared to fulfill the requirement of Master of Business Studies (MBS). While selecting the sample companies for analysis; three listed companies with almost similar size, similar in nature have been selected. This study is mainly based on secondary and primary data that is provided by concern companies and respondents. The main objective of this is study is to assess the capital structure in respect to identify debt

servicing capacity, effect of leverage in profitability. So to fulfill the mentioned objectives various tools have been used. Due to the time and resource constraints all types of analysis are not conducted. Information is gathered during the period of fiscal year 2069/70.

To conclude this study, collected information is presented, analysis and conclusion is drawn from the study. The whole study has been divided into five chapters of different aspects. The summary of each chapter is presented as follows.

Chapter I 'Introduction' provide the brief introduction of this study. It explains about objective of the study, statements of problems of problem, limitation of study and organization of the study which provides guideline for entire study. Even though, this study can't deprive from some limitations.

Chapter II 'Review of Literature' deals with reviewing of available literature in the field of this study. From theoretical review section, we can take advantages of conceptual foundation of capital structure decision. Similarly, by reviewing related research works, articles and previous studies, may inputs can be taken for this study and other researcher can also take advantage from this section. From this chapter we can conclude that all the theories of capital structure are not properly applicable in the Nepalese context.

Chapter III 'Research Methodology' deals about the methodology of this study. The study covers the five years data of concerned companies. Secondary as well as primary data are used in this study. In this study ratio analysis, capital structure analysis, correlation analysis and probable error have been used to species the guidelines, tools and research to achieve the objective of the study.

Chapter IV 'Data Presentation and Analysis' included presentation and analysis of data. To analysis the data financial as well as statistical tools are used. Ratio analysis which is directly related to the capital structure analysis and leverage are main financial tools used. Correlation coefficient and probable error are main statistical tools. Data generated through questionnaires are analyzed using descriptive methods and are presented table whenever necessary.

Chapter V 'Summary, Conclusion and Recommendations' is concluding chapter. This chapter explains about the overall conclusion of this study. Based on the analysis and conclusion of this study some recommendation are made in this chapter, which are helpful

to take corrective action in capital structure decision for the concerning companies as well as whole sector for their betterment.

5.2 Conclusion

This study "A comparative Analysis on Capital Structure Management of General Insurance Companies In Nepal" tries to analyze the capital structure of the sampled companies based on the data provided in the financial statements. After analyzing primary and secondary data which are presented in chapter 4, the following conclusion is drawn from the study.

- By analyzing debt to equity ratio, all these companies are using equity and debt in their capital structure. Through this analysis, it is found that PICL, SICL and NIL have 55.32%, 63.28% and 47.75% of D/E ratio in average respectively. Above data shows that SICL is highly levered firm than that of PICL and NIL. But again we can say that PICL is highly levered than NIL. SICL has highest claim of outsiders than there of equity holders. It can conclude that higher ratio would be in danger of encouraging irresponsibility on the part of owners.
- By analyzing the total debt to total assets ratio, it seems to be highest ratio is PICL than that of ratio in average of SICL and NIL. This ratio in average of PICL is 22.77%. Whereas this ratio in average of SICL is 21.88% and of NIL is 21.77%. This ratio PICL is highest which indicated that the creditor's margin of safety is low.
- By analyzing the total debt to total capital ratio, it is found that the averages of total debt to total capital ratio of PICL, SICL and NIL are 50%, 55.60% and 45.44% respectively. This implies that about 55.60% of total capital is financed by total debt in case of SICL and about 50% of total capital is financed by total debt of SICL. Similarly, about 45.44% of total capital is financed by debt of NIL. Having higher ratio of SICL we can say that SICL borrowed fund has greatest contribution to total debt to total capital than that of SICL and NIL. Whereas SICL and NIL has nominal contribution of total debt to total capital ratio. An arbitrary rule is that total debt should not be more than 67% of total capital.
- By analyzing the net profit ratio, average of this ratio of PICL, SICL and NIL stands as 5.01%, 11.38% and 2.92% respectively. So it is found that operating efficiency of SICL is better than that of PICL and NIL. How the management operates the organization is

shown by this ratio. So, we can say that net profit ratio of SICL is satisfactory trend, PICL is good enough but is not so much satisfactory.

- By analyzing the return on equity of all three companies, it is found that these ratios of PICL, SICL and NIL are 10.43%, 22.40% and 5.04% average respectively. Here this ratio of SICL seems to be better than that of PICL and NIL. But both companies PICL and SICL have better ROE in respect to gain higher return from their investments except NIL.
- By analyzing the return on assets the average ratio of PICL, SICL and NIL are found 4.28%, 7.14% and 1.91% respectively. By comparing this SICL has highest ROA than that of PICL and NIL. We can say that SICL is utilizing its assets in profitable investments and PICL also have a better ROA but it looks like NIL has not utilized its assets in profitable investments.
- By analyzing EPS of both companies. It is found Rs. 16.71, Rs. 38.36 and Rs. 6.39 are earning per share in average of PICL, SICL and NIL respectively, which shows the better earnings to its shareholder by companies. EPS of SICL, seem to be better than that of PICL and NIL but here the EPS of PICL is better than that of NIL. Investor always wants to invest its investment or share in profitable opportunities. So here all three companies are desirable investment opportunities by the side of investor.
- Total value of the firm of PICL, SICL and NIL are found Rs. 189,747,267.20, Rs. 284,270,989.90 and Rs. 176,022,375.20 respectively in average. This shows that SICL has higher total value of firm. While total value of PICL and NIL are in increasing trend.
- By analyzing the overall capitalization rate according to NI approach, net operating income is capitalized at an overall capitalization rate to obtain the market value of the firm. According to this approach Ko and Kd stay same, regardless the degree of leverage. So the company can use high amount of debt capital with the same rate of interest. With this analysis overall capitalization rate of PICL, SICL and NIL are 9.65%, 20.52% and 6.31% in average.
- Another aspect of NOI approach is that the required rate of the return increases with decreasing value of debt. From the analysis this, it is clearly known that Ke is in high percentage for those companies which are giving priority to equity than debt. So, Ke of SICL seems to be higher than that of PICL and NIL. From this study we conclude that Ke is directly affected by leverage position of the company, i.e. increasing leverage

position is the reason for decreasing rate of Ke. At last, we can make a conclusion that the market value of firm is not affected by the leverage position of the firm and that only Ke depends upon the leverage position of the firm.

- By analyzing the correlation co-efficient it is found that PICL and SICL have positive correlation, but this relationship is not significant because the value of 'r' is not greater than six times of P.E. while the correlation co-efficient between debt and equity of NIL has highly positive correlation, which implies that the relationship between debt and equity is significant, because the value of 'r' is greater than six times of P.E.
- By analyzing the correlation co-efficient between debt to equity ratio and Ko of PICL it is found positive correlation, but this relationship is not significant because the value of 'r' is not greater than six times of P.E. As same time the value of 'r' of SICL and NIL has negative correlation, which signifies that the relationship between debt to equity ratio and Ko is in high degree of negative correlated this relationship is not significant.
- By analyzing the correlation co-efficient between debt to equity ratio and Ke, it can be concluded that the value of 'r' is significant and there is highly positive relationship between these two variables for PICL because the value of 'r' is greater than six times of P.E. As same time the value of 'r' is not significant and there is no proper relationship between these two variables i.e. there is high degree of negative correlation for SICL and NIL.

5.3 Recommendations

For the above findings and conclusion following recommendation to the concern companies as well as whole sector have been suggested, this can be presented as follows.

1. It is necessary to identify and attain optimal capital structure by the companies to enhance the overall performance of the company. Insurance companies are recommendation to plan their capital structure by analyzing the possible alternative financial plan.
2. The proposition of debt and equity capital should be decided keeping in mind the efforts to tax advantages and financial distress. When it is difficult to pay interest and principle, it's ultimately leads to liquidation or bankruptcy. For such companies are

recommended to balance their capital structure, which minimized cost and maximizes the return to shareholders of company.

3. We have assumed current liabilities as debt in our study. Due to this it shows the most of portion of permanent capital of these companies has been financed by shareholder equity. During our study, it is found that the Insurance companies studied here have not used debt in real manners. These companies are somehow completely operating in equity. To take tax deductibility advantages, these companies are suggested that they have to use long term debt to gain maximum returns to shareholders.
4. The management of the insurance companies should always be well informed about the source of capital, their reliability, their cost and possible terms, condition that can made by lenders.
5. Insurance companies should give continuity in providing both conceptual and practical training to the staff to enhance their knowledge, skill and competency level.
6. Lastly, the company has to enhance effectiveness, efficiency and proper co-ordination of its department's tasks by continuously reviewing its structural design in accordance with the need of the changing time and situation. The management of insurance companies should not take any financial decision randomly always keep in mind those capital structure theories and cost of capital concept which are helpful in taking corrective decision.

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Appendix 1

Correlation Coefficient and their respective P.E. between Debt and SHE of PICL

Fiscal Year	Total Debt (X)	SHE (Y)	X^2	Y^2	X.Y
2063/64	267.37	948.31	71486.72	899290.00	253549.38
2064/65	764.75	1000.63	584842.56	1001260.16	765231.70
2065/66	678.83	1351.26	460810.17	1825903.21	917275.73
2066/67	768.07	1356.00	589931.52	1838743.81	1041505.13
2067/68	927.43	1424.70	860126.40	2029782.48	1321313.56
Total	3406.45	6080.91	2567197.38	7594979.66	4298875.50

Correlation Coefficient,

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

$$= \frac{5 \times 4298875.50 - 3406.45 \times 6080.91}{\sqrt{5 \times 2567197.38 - (3406.45)^2}\ \sqrt{5 \times 7594979.66 - 6080.91)^2}}$$

$$= 0.70$$

$$\text{Probable Error} = \frac{0.6745\,(1-r^2)}{\sqrt{N}}$$

$$= \frac{0.6745\,(1 - 0.70^2)}{\sqrt{5}}$$

$$= 0.154$$

Appendix 2

Correlation Coefficient and their respective P.E. between Debt and SHE of SICL

Fiscal Year	Total Debt (X)	SHE (Y)	X^2	Y^2	X.Y
2063/64	1217.31	1349.46	1481838.23	1821047.01	1642710.29
2064/65	879.34	1553.04	773235.88	2411921.78	1365644.34
2065/66	934.63	1653.57	873530.06	2734278.37	1545468.97
2066/67	1217.43	1799.77	1482145.18	3239164.53	2191098.38
2067/68	1127.24	2481.77	1270665.96	6159190.92	2797547.90
Total	5375.95	8837.60	5881415.31	16365602.61	9542469.87

Correlation Coefficient,

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

$$= \frac{5 \times 9542469.87 - 5375.95 \times 8837.60}{\sqrt{5 \times 5881415.31 - (5375.95)^2}\ \sqrt{5 \times 16365602.61 - (8837.60)^2}}$$

$$= 0.15$$

$$\text{Probable Error} = \frac{0.6745\,(1-r^2)}{\sqrt{N}}$$

$$= \frac{0.6745\,(1-0.15^2)}{\sqrt{5}}$$

$$= 0.295$$

Appendix 3

Correlation Coefficient and their respective P.E. between Debt and SHE of NIL

Fiscal Year	Total Debt (X)	SHE (Y)	X^2	Y^2	X.Y
2063/64	382.75	821.95	146501.02	675605.57	314605.95
2064/65	479.67	821.95	230082.78	675605.57	394265.40
2065/66	613.88	1384.57	376850.32	1917044.66	849964.06
2066/67	613.28	1444.72	376113.82	2087203.28	886016.93
2067/68	715.96	1522.37	512605.49	2317620.98	1089965.71
Total	2805.55	5995.57	1642153.44	7673080.06	3534818.05

Correlation Coefficient,

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

$$= \frac{5 \text{ x } 3534818.05 - 2805.55 \text{ x } 5995.57}{\sqrt{5 \text{ x } 1642153.44 - (2805.55)^2}\ \sqrt{5 \text{ x } 7673080.06 - (5995.57)^2}}$$

$$= 0.94$$

$$\text{Probable Error} = \frac{0.6745\ (1-r^2)}{\sqrt{N}}$$

$$= \frac{0.6745\ (1 - 0.94^2)}{\sqrt{5}}$$

$$= 0.035$$

Appendix 4

Correlation Coefficient and their respective P.E. between D/E ratio and Ko PICL

Fiscal Year	D-E ratio (X)	Ko (Y)	X^2	Y^2	X.Y
2063/64	28.19	6.29	794.68	39.56	177.32
2064/65	76.43	9.08	5841.54	82.45	693.98
2065/66	50.24	9.62	2524.06	92.54	483.31
2066/67	56.64	11.42	3208.09	130.42	646.83
2067/68	65.1	11.83	4238.01	139.95	770.13
Total	276.60	48.24	16606.38	484.92	2771.57

Correlation Coefficient,

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

$$= \frac{5 \times 2771.57 - 276.60 \times 48.24}{\sqrt{5 \times 16606.38 - (276.60)^2}\quad \sqrt{5 \times 484.92 - (48.24)^2}}$$

$$= 0.65$$

$$\text{Probable Error} = \frac{0.6745\,(1-r^2)}{\sqrt{N}}$$

$$= \frac{0.6745\,(1 - 0.65^2)}{\sqrt{5}}$$

$$= 0.174$$

Appendix 5

Correlation Coefficient and their respective P.E. between D/E ratio and Ko SICL

Fiscal Year	D-E ratio (X)	Ko (Y)	X^2	Y^2	X.Y
2063/64	90.21	6.27	8137.84	39.31	565.62
2064/65	56.62	9.56	3205.82	91.39	541.29
2065/66	56.52	23.86	3194.51	569.30	1348.57
2066/67	67.64	26.51	4575.17	702.78	1793.14
2067/68	45.42	36.41	2062.98	1325.69	1653.74
Total	316.41	102.61	21176.32	2728.47	5902.35

Correlation Coefficient,

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

$$= \frac{5 \times 5902.35 - 316.41 \times 102.61}{\sqrt{5 \times 21176.32 - (316.41)^2}\quad \sqrt{5 \times 2728.47 - (102.61)^2}}$$

$$= -0.70$$

$$\text{Probable Error} = \frac{0.6745\,(1- r^2)}{\sqrt{N}}$$

$$= \frac{0.6745\,\{1-(-0.70)^2\}}{\sqrt{5}}$$

$$= 0.154$$

Appendix 6

Correlation Coefficient and their respective P.E. between D/E ratio and Ko NIL

Fiscal Year	D-E ratio (X)	Ko (Y)	X^2	Y^2	X.Y
2063/64	46.57	-2.5	2168.76	6.25	-116.43
2064/65	58.36	4.48	3405.89	20.07	261.45
2065/66	44.34	5.57	1966.04	31.02	246.97
2066/67	42.45	12.98	1802.00	168.48	551.00
2067/68	47.03	11	2211.82	121.00	517.33
Total	238.75	31.53	11554.51	346.83	1460.33

Correlation Coefficient,

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

$$= \frac{5 \times 1460.33 - 238.75 \times 31.53}{\sqrt{5 \times 11554.51 - (238.75)^2}\qquad \sqrt{5 \times 346.83 - (31.53)^2}}$$

$$= -0.30$$

$$\text{Probable Error} = \frac{0.6745\ (1- r^2)}{\sqrt{N}}$$

$$= \frac{0.6745\ \{1-(-0.30)^2\}}{\sqrt{5}}$$

$$= 0.274$$

Appendix 7

Correlation Coefficient and their respective P.E. between D/E ratio and Ke PICL

Fiscal Year	D-E ratio (X)	Ke (Y)	X^2	Y^2	X.Y
2063/64	28.19	8.06	794.68	64.96	227.21
2064/65	76.43	16.01	5841.54	256.32	1223.64
2065/66	50.24	14.45	2524.06	208.80	725.97
2066/67	56.64	17.89	3208.09	320.05	1013.29
2067/68	65.1	19.53	4238.01	381.42	1271.40
Total	276.60	75.94	16606.38	1231.56	4461.52

Correlation Coefficient,

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

$$= \frac{5 \text{ x } 4461.52 - 276.60 \text{ x } 75.94}{\sqrt{5 \text{ x } 16606.38 - (276.60)^2}\quad \sqrt{5 \text{ x } 1231.56 - (75.94)^2}}$$

$$= 0.82$$

$$\text{Probable Error} = \frac{0.6745\ (1- r^2)}{\sqrt{N}}$$

$$= \frac{0.6745\ (1 - 0.82^2)}{\sqrt{5}}$$

$$= 0.099$$

Appendix 8

Correlation Coefficient and their respective P.E. between D/E ratio and Ke SICL

Fiscal Year	D-E ratio (X)	Ke (Y)	X^2	Y^2	X.Y
2063/64	90.21	11.92	8137.84	142.09	1075.30
2064/65	56.62	14.98	3205.82	224.40	848.17
2065/66	56.52	37.35	3194.51	1395.02	2111.02
2066/67	67.64	44.44	4575.17	1974.91	3005.92
2067/68	45.42	52.95	2062.98	2803.70	2404.99
Total	316.41	161.64	21176.32	6540.13	9445.40

Correlation Coefficient,

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

$$= \frac{5 \times 9445.40 - 316.41 \times 161.64}{\sqrt{5 \times 21176.32 - (316.41)^2}\ \sqrt{5 \times 6540.13 - (161.64)^2}}$$

$$= -0.64$$

$$\text{Probable Error} = \frac{0.6745\,(1- r^2)}{\sqrt{N}}$$

$$= \frac{0.6745\,\{1-(-0.64)^2\}}{\sqrt{5}}$$

$$= 0.178$$

Appendix 9

Correlation Coefficient and their respective P.E. between D/E ratio and Ke NIL

Fiscal Year	D-E ratio (X)	Ke (Y)	X^2	Y^2	X.Y
2063/64	46.57	-3.66	2168.76	13.40	-170.45
2064/65	58.36	7.1	3405.89	50.41	414.36
2065/66	44.34	8.04	1966.04	64.64	356.49
2066/67	42.45	18.49	1802.00	341.88	784.90
2067/68	47.03	16.17	2211.82	261.47	760.48
Total	238.75	46.14	11554.51	731.80	2145.78

Correlation Coefficient,

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

$$= \frac{5 \times 2145.78 - 238.75 \times 46.14}{\sqrt{5 \times 11554.51 - (238.75)^2}\quad \sqrt{5 \times 731.80 - (46.14)^2}}$$

$$= -0.26$$

$$\text{Probable Error} = \frac{0.6745\,(1- r^2)}{\sqrt{N}}$$

$$= \frac{0.6745\,\{1-(-0.26)^2\}}{\sqrt{5}}$$

$$= 0.281$$

Questionnaire used for Primary data collection

Dear Respondents,

This research questionnaire has been developed to achieve the main objective of the research entitled "A Comparative Analysis on Capital Structure Management between three insurance companies i.e. Premier Insurance Co. (Nepal) Ltd., Sagarmatha Insurance Co. Ltd. and Neco Insurance Ltd." conducted by me in partial fulfillment of the requirement for the degree of Masters Business Studies (MBS). For the research reports your valued opinions, experience and thoughts may play a significant role. Thus you are kindly requested to answer the question set by the researcher.

1. Do you think that the optimal capital structure helps to minimize the cost of capital and maximize the value of the firm?

- Yes
- No
- Don't Know

2. Do you think that use of debt helps to maximize shareholders wealth?

- Yes
- No
- Don't Know

3. Do you think that there is relationship between capital structure and profitability of firm?

- Yes
- No
- Don't Know

4. Do you think that current political situation affect the profitability ratio of service sector rather than that of management sector?

- Strongly agree
- Moderately agree
- Disagree
- Strongly Disagree
- Don't Know

5. Which alternate do you rank among the source of financing the new project they are to undertake?

Items	Scale	Mean	Rank

	1	2	3	4	5		
Common Stock							
Retained Earning							
Preferred Stock							
Debt							
Other							

6. Do you think the degree of risk associated with the firm also increases if the leverage increases?

Items	**Scale**				**Mean**	**Rank**
	1	**2**	**3**	**4**		
Risk increases						
Risk decreases						
Share price will increase						
Share price will decrease						

7. Can following factors influence attributes on capital structure decisions? Please assign for strongly agree and strongly disagree.

Attribute	Strongly agree	Agree	Indifference	Disagree	Strongly Disagree
Tax Rate					
Interest Rate					
Assets structure					
Growth opportunity					
Stability of sales and growth					
Period of finance					