

*Working Capital Management
Of
Nepal Life Insurance Company Ltd.*

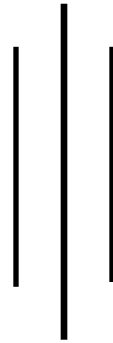
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A Thesis

Submitted to:

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Faculty of Management

Tribhuvan University



*In partial fulfillment of the requirements for the degree of
Master in Business Studies (M.B.S.)*

Kathmandu, Nepal

July, 2010

RECOMMENDATION

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I Hereby, declare that the work of reported in dissertation entitled *“Working Capital Management of Nepal Life Insurance Company Ltd.”* submitted to the Research Department of Shanker Dev Campus, Putali Sadak, Faculty of Management, Tribhuwan University is my original work done in the form of partial fulfillment of the requirements for the master’s degree in Business studies (MBS) under the guidance and supervision of Mrs. Ruchila Pandey and Mr. Manoj Bhattarai, Lecturer of Shanker Dev Campus, Tribhuwan University, Nepal.

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TABLE OF CONTENTS

	Page No.
Recommendation	
Viva Voce Sheet	
Declaration	
Acknowledgements	
List of Tables	
List of Figures	
Abbreviations	
Chapter – I; Introduction	1-11
1.1 Background of the Study	1
1.2 Focus of the study	7
1.3 Statement of the Problem	7
1.4 Objective of the Study	8
1.5 Need of the Study	9
1.6 Limitation of the Study	10
1.7 Organization of the Study	10
Chapter – II; Review of Literature	12-56
2.1 Conceptual Framework	12
2.1.1 Meaning of Insurance	13
2.1.2 Evolution of Insurance	15
2.1.3 Types of Insurance	17
2.2.1 Meaning of Working Capital	21
2.2.1.1 Concept of Gross Working Capital	22
2.2.1.2 Concept of Net Working Capital	23
2.2.2 Classification of Working Capital	23
2.2.2.1 Permanent Working Capital	23
2.2.2.2 Temporary Working Capital	24
2.2.3 Need of Working Capital	25
2.2.4 Importance of Working Capital	27
2.2.5 Determinants of Working Capital	28
2.2.6 Financing of Working Capital	31
2.2.7 Working Capital Financing and Investment Policy	32
2.2.8 Working Capital Cash Flow Cycle	35
2.3 Review of Related Studies	38
2.4 Review of Related Unpublished Thesis	42
2.5 Research Gap	55
Chapter – III; Research Methodology	57-66
3.1 Introduction	57
3.1.1 Research Design	57
3.1.2 Population and Sample	58
3.1.3 Nature and Source of Data	58
3.1.4 Data Collection Techniques	59
3.1.5 Data Processing Procedure	58
3.1.6 Tools and Techniques of Analysis	60

3.1.6.1 Financial Tools	60
3.1.6.1.1 Liquidity Ratios	60
3.1.6.1.2 Profitability Ratios	61
3.1.6.1.3 Turnover Ratios	62
3.1.6.2 Statistical Tools	64
3.1.6.3 Claim Analysis	66
Chapter – IV; Data Presentation and Analysis	67-112
4.1 Analysis of Composition of Working Capital	67
4.2 Position of Current Assets	67
4.3 Working Capital policy Analysis	69
4.4 Size of Working Capital	69
4.5 Structure of Working Capital	78
4.6 Financing of Current Assets	83
4.7 Growth of Working Capital	84
4.8 Ratio Analysis	86
4.8.1 Efficiency of Working Capital Management	87
4.8.2 Profitability Ratio	91
4.8.3 Liquidity Management Ratio	94
4.9 Trend Analysis	98
4.10 Sectarian Management of Current Assets	102
4.10.1 Management of Receivables	102
4.10.2 Management of Cash	104
4.11 Claim Analysis	104
4.11.1 Death Claim to Total Premium Collection	106
4.11.2 Surrender Value Payment to Total Premium Collection	108
4.12 Major Findings of The Study	109
Chapter – V; Summary, Conclusions and Recommendations	113-119
5.1 Introduction	113
5.2 Summary	113
5.3 Conclusions	115
5.4 Recommendations	116

Bibliography
Annexes

List of Tables

Table No.	Description	Page No.
4.1	Current Assets of Nepal Life Insurance Co. Pvt. Ltd	68
4.2	Percentage of Current Assets To Total Assets	70
4.3	Percentage of Current Assets To Fixed Assets	72
4.4	Percentage of Current Assets To Operating Income	74
4.5	Proportion of Net Working Capital To Current Assets	76
4.6	Proportion of Net Working Capital To Operating Income	77
4.7	Proportion of Receivable To Current Assets	79
4.8	Proportion of Cash and Bank Balanced To Current Assets	80
4.9	Proportion of Investment To Current Assets	81
4.10	Proportion of Misc. Current Assets To Current Assets	82
4.11	Structure of Current Assets	82
4.12	Financing Mix of Nepal Life Insurance Co. Pvt. Ltd	83
4.13	Growth Trend of Current Assets, Total Assets and Sales	85
4.14	Receivable Turnover and Average Collection Period	87
4.15	Cash and Bank Balance Turnover Ratio	88
4.16	Current Assets Turnover Ratio	89
4.17	Net Working Capital Turnover Ratio	90
4.18	Return on Current Assets	92
4.19	Return on Net Working Capital	93
4.20	Return on Capital Employed	94
4.21	Current Ratio of Nepal Life Insurance Co. Pvt. Ltd	95
4.22	Absolute Liquid Ratio of Nepal Life Insurance Co. Pvt. Ltd	97
4.23	Liquidity and Profitability Table	98
4.24	Trend Analysis of Working Capital, It's Component and Operating Income	99
4.25	Total Claim Statement of Nepal Life Insurance Co. Pvt. Ltd	105
4.26	Death Claim Payment to Total Premium Collection	107
4.27	Surrender Value Payment to Total Premium Collection	108

List of Figures

Figure No.	Description	Page No.
4.1	Percentage of Current Assets To Total Assets	71
4.2	Percentage of Current Assets To Fixed Assets	73
4.3	Proportion of Current Assets To Operating Income	75
4.4	Composition of Net Working Capital and Current Assets	77
4.5	Composition of Net Working Capital and Operating Income	78
4.6	Structure of Current Assets	83
4.7	Financing Mix of Nepal Life Insurance Co. Pvt. Ltd	84
4.8	Trend indices of Current Assets & Current Liabilities	100
4.9	Trend indices of TA, Operating Income & NWC	100
4.10	Trend indices of Cash & Bank Balance and Receivables	101
4.11	Total Claim Statement of Nepal Life Insurance Co. Pvt. Ltd	106
4.12	Death Claim Payment to Total Premium Collection	107
4.13	Surrender Value Payment to Total Premium Collection	109

ABBREVIATION

NLIC	:	Nepal Life Insurance Company Limited
A/C	:	Account
P.U.	:	Purbanchal University
T.U.	:	Tribhuvan University
F.Y.	:	Fiscal Year
ROA	:	Return of Assets
ROE	:	Return on Equity
ROCE	:	Return on Capital Employed
Co.	:	Company
Ltd.	:	Limited
R/I	:	Reinsurance
sd	:	Standard Deviation
CV	:	Coefficient of Variance
r:	:	Coefficient of Correlation
PE	:	Probable Error
Govt.	:	Government
NCW	:	Net Working Capital
CE	:	Capital Employed
CA	:	Current Assets
CL	:	Current Liabilities
ACP	:	Average Collection Period
PDP	:	Payable Deferred Period
RCP	:	Receivable Conversion Period
CCC	:	Cash Conversion Cycles
LTF	:	Long Term Financing
OI	:	Operating Income
NW	:	Net Worth
DSO	:	Days Sales Outstanding

CHAPTER- I

INTRODUCTION

1.1 Background of the study

Insurance is a contract by which one party, for a compensation called premium, assumes particular risk of the other party and promises to pay to him or his nominee a certain sum of money on a specified contingency.

The insurance industry provides financial protection against various kinds of losses, such as accidental death, fire, sickness and injury, or loss of income. The industry has two main components: one is insurers that underwrite insurance policies, assuming financial risk and other is insurance agents or brokers who sell insurance policies to businesses and individuals. Insurers are generally large companies, although many small insurers actively compete for a piece of the insurance market. Insurance agents are only mediators of insured and insurer; generally they are employees of other companies or self-employed professionals.

The term reinsurance also play essential role in insurance business. It is meaningless to imagine insurance business and unable to survive without reinsurance. Insurance companies are not capable to bear huge sum assured of policies for potential incidents and losses occur from catastrophe like earth quake, flood, storm etc. In other words, reinsurance is a contract or agreement in which a part of the risk, which an insurance company has insured is transferred to another insurance company. Reinsurance means the insuring again by the insurer of a risk already insured.

In context of Nepal, there is not any reinsurance company established till now and great amount of money is going in foreign land from our country for reinsurance. Though, Nepalese insurance law does not define reinsurance. But there is a definition of reinsurance business according to section 2(h) of the insurance Act.2049, "Re-Insurance Business means re-insuring the portion of the risk which is excess of the risk to be hold by the Insurer".

Insurance Business is classified into two types; Life Insurance and Non Life Insurance. Insurance other than life insurance are non-life or general insurance, on which insurer charges nonrefundable premium for bearing of risk as well as will have to compensate according to the terms and conditions of policy, if defined incident occurred. But the life insurance is vast different in type than general insurance. Life insurance is legal contract made against the risks related to human being's life. In fact, if the insured meets incidentally and untimely death, the financial protection to his depended family provided by the insurer as mentioned in policy paper and if the insured remains alive until the maturity period of insurance plan, it becomes financial saving for his old age with or without profit bonus, whatever mentioned in policy. Life insurers' today offer tax deferred annuities, estate planning and tax planning services in addition to providing death-benefit coverage.

The Insurer, who deals with the Life Insurance Business, should assess the financial position and the valuation of liabilities by an Actuary once in every three years. Life Insurance Company should appoint an Actuary compulsory to evaluate for financial position of the company, valuation of liabilities, forecasting of new business plan and for analysis related to financial activities and should submit a copy of the reports submitted by the Actuary. Life insurance business cannot perform effectively without Actuary counseling. Actuary means a person having excellence knowledge of Statistics, Finance and Account, in other word he or she should be competence mathematician and certified from recognized Institute of Actuary. Great amount of money is going in foreign land for Actuarial Counseling due to unavailability of any Actuary in Nepal till now. Though, Nepalese insurance law does not define Actuary. But there is a definition of Actuary according to section 2(j) of the insurance Act.2049, "Actuary means a person having the qualification as prescribed and is appointed by the Insurer for assessing and calculating the liabilities of the Insurance Business. And qualification of the actuary defined as; any person who has obtained the fellowship award from an Institute of Actuary recognized by the Board may work as an Actuary pursuant to this Regulation".

According to section 35 of the Insurance Regulation 2049, "the report of the valuation of Life Insurance Business within the Kingdom of Nepal made by an Actuary shall be submitted to the Board, and the approval of the Board shall be taken for making arrangement according to the valuation report. If the report of Actuary has not submitted pursuant to Section 26, Certificate of Registration of the Insurer Cannot renewed".

To affect life insurance contract, two essential pre-requisite basic principles must be fulfilled rather than other principles of life insurance. The contract of life insurance will be a wagering agreement, which shall be void and unenforceable in absence of these principles:

➤ **Principle of Insurable Interest.**

A person is said to have an insurable interest in the subject matter insured where he or she will derive pecuniary benefit from its existence or will suffer pecuniary loss form its destruction.

➤ **Principle of Utmost Good Faith.**

The main intention of it is that the insured does not get the financial benefit on the basis of false statement and the insurer also should tell loss and gain upon the subject matter.

The business of life insurance appeared for short period, about 16th century only. One of the 1st records of life insurance was in Rome. There, groups came together called Fraters (burial clubs). These were set up by the poor to pay for the funerals of the members and to help the surviving family members financially. To talk about the modern life insurance, in 18th June 1583 by an associate of 16 persons, the first life insurance policy of the world was issued for 12 months on the life of William Gybbons at the 8% premium rate. The insured died within 11 months and they had to pay claim. In 1693 A.D., an astronomer named Admand Heley submitted a "Mortality table", to the Royal Society and nearly after 70 years, in 1762 the first insurance institution was established by using the insured amount technology on the basis of data.

The first registered office of life insurance named "The Hand in Hand Society" was opened in England in 1696, than the companies came up were The Royal Exchange Assurance, London Assurance and British Insurance Company. Lately the first life insurance company in the United States started in 1735 A.D. This company was started for the benefit of Presbyterian ministers' families. The application of mortality tables in 1755 by Dadson and the introduction of actuarial science revolutionized the whole concept of life insurance. In 1762 A.D. the Equitable Society was first to be founded on a scientific basis. The Church of Scotland passed an Act to give financial protection to the family of dead ministers. Then after passed the life insurance Act 1774, the emphasis was given to the necessity of the insurable interest of the insured which prohibited to effect insurance without inquiring the persons who wanted to make insurance.

Working capital is the most important aspects of any organization. Organizations may success or fail because of its working capital management. In this regards, how far Nepalese organization are being able to manage working capital is essential to study.

The wheel of development is accelerated by industrialization and industrialization is possible only with the support of two big institutions banking and insurance. The one pillar, banking provides and helps in the financial transaction of business in many ways. Another pillar, insurance, offer a high economic relief of different types of industrialist businessmen and individuals. Insurance has become the pillar of alertness, courage and eagerness to develop life and the living standard of common people, industrialists and trade of today's world. Insurance is a kind of financial mechanism, which provides the financial security against risk. Insurance is equally important for common people and businessmen. It is part and parcel of business houses. Insurance is a developing industry of Nepal. It provides security to general people. Besides, it is one of the major employment generating sectors. People who are able and not have insurance facility are more 90%. To sum up, Nepal has tremendous insurance potential. All Nepalese are its target customers. Nepal still has a long way to go in accelerating the pace of its economic growth and human development. It is one of the most important industries for

the economic growth, industrialization as well as human development. In Nepal, insurance business is important not only as a source of earning currency but also one of the major employments generating industry.

Nepal is one of the poorest countries of the world. More than 80% of the people are dependent on agriculture. Most of the people live on low income level. Income makes them able to fulfill basic needs. They are not able to fulfill even safety need. Economic, social accident makes them unbalance. In this regard insurance is one way to be safety managing low-income level. In this regard, what is the situation of present insurance companies in Nepal is essential to study.

Insurance works as a double-egg weapon. On one side it provides financial security against risk and on the other side; it provides capital to the business houses. Now-a-days, insurance has not only been a necessary thing but also a part and parcel of business world. In thin context, the importance and necessity of insurance business in Nepal cannot ignore. There no long history of insurance business in Nepal. The necessity of formal insurance was not realized before the revolution of 2007 B. S. At the time people's life was mostly depended on agriculture. There were no big industries and the country had not 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 the time some person traveling in India used to make insurance in Indian insurance companies. Insurance agent of Indian Life Insurance Company used to come to Nepal to make insurance of Nepalese people.

The parental role of the development of insurance in Nepal goes to Nepal Bank Limited. Transport of goods and Insurance company (Nepal Mal Chalani Ra Beeme Company) was established under the control of Nepal Bank Limited in 2004 B. S. The Transport of Goods and Insurance Company used to release the goods from the customs of Rakasaul-Birgunj imported through Nepal Bank Limited. And handover such goods to the goods owner of the bank or parties after receiving it. The name of the company was changed into Nepal insurance and Transport in 2016 B. S. Again in 2048 B. S. the

name of this company changed into Nepal insurance company Ltd. which is the oldest insurance company in Nepal.

Nepal Life Insurance Co. Ltd. (Established under company act 2053 and Insurance Act 2049 in 4th of May 2001), is one of the esteemed and pioneer Private Life Insurance Company. Triveny Group, the promoters of the Co. are reputed business houses and enlightened persons of the Country, so the financial situation of the Co. is always stable. It is the first and the only Insurance Co., which has been given license to transact life insurance business exclusively and is solely invested by Nepalese citizens. The company has Rs 1,000,000,000 authorized capital and Rs. 300,000,000 paid up capital out of which 80% has been fully paid up by 45 promoters and the remaining 20% shares have been opened to the general public within one year form the commencement of the Co. The company only provides life insurance. It is the first Nepalese life insurance Company invested by only Nepalese investor. Now it has 9164 public shareholders. It has its own 6 storied building with area of 3-13-2 at Kamalpokhari, Kathmandu.

NLIC has appointed J. B. Boda & Company for Actuarial Valuation, esteemed Actuary of India located in Maker Bhavan No.1, Sir Vithaldas Thackersey Marg, Mumbai – 400 020, India.

NLIC has made re-insurance company Hanover-Re, Germany, lies at Malaysian Branch, Hannover Rueckversicherungs-AG, Suite 31-1-, 31st Floor, Wisma UOA .., 21 Jalan Painang, 50450 Kuala Lumpur. "Hanover-Re ranked top 3rd Reinsures out of top 25 Reinsurers in 2002 & 2003 and awarded as Reinsurance Co. of the year in 2004". (Source–World Insurance Report).

The Corporate Office of NLIC lies at Heritage Plaza-I, Second Floor, Kamaladi, Kathmandu. Its nationwide insurance services are available through different branches spread all over Country. At present it have 21 branches at Phidim, Birtamod, Urlabari, Biratnagar, Lahan, Janakpur, Birgunj, Hetauda, Naranghat, Kamaladi Kathmandu, Naxal Kathmandu, Patan Lalitpur, Banepa, Trisuli Nuwakot, Butwal, Pokhara, Nepalgunj, Surkhet, Dang, Dhangadi and Mahendranagar. It has also 40 Sales Center.

NLIC has always been committed to providing a quality service to its valued customers, with a personal touch. All customers are treated with utmost courtesy as

valued clients. To further extend the reliable and efficient services to its valued customers, recently it has provided unique service for deposit insurance premium in any of these Finance Companies: - Birgunj Finance, Mahalaxmi Finance, National Finance and Guheshwori Finance. All these factors give the company customers' confidence; financial strength and technical know how to ensure steady growth of the company, good returns on policies and efficient customers' service.

1.2 Focus of the study

Two types of capital are employed in an organization & both are equally important. This study's is on working capital which is concerned to day-to-day operation. The company should always concern on structure of working capital its management. Working capital helps to operate fixed assets in proper way. For insurance, if the company doesn't have inventory, it can't increase its sales revenue and has to keep fixed assets in idle condition. In other words, the company isn't able to utilize its overall fixed assets due to the lack of the working capital. Therefore, the financial manager always concern to make optimal level of working capital; which helps in wealth maximization as well as profit maximization of any business organization.

Working capital is a crucial aspect of management. In this modern business age, working capital covers broad area. Working capital management covers almost half of the work of the financial management. Among this broad area, we are focusing on its size, structure, turnover position, liquidity and profitability position of Nepal Life Insurance Company.

1.3 Statement of the problem

The insurance business is a multi-dimensional business. Insurance has become part and parcel of the contemporary business world. Insurance works as a double edged weapon. On one hand it provides the financial security against future loss and on the other hand it provides funds for liquidity to the business houses. By knowing the reality, the numbers of insurance companies are providing this service in Nepal. Lack of the sufficient number of industries, limited market opportunities poses and serious threat to

the insurance business in Nepal. In this context working capital management is being a challenging task for them.

Working capital is required for financing the working needs of enterprises. So, to run smoothly, an organization requires it every time. So it can be regarded as the lifeblood of the organization. Working capital circulates from one to another in ordinary conduct of business. It is a significant part of decision as value maximization goal depends essential on present working capital decision and the cost of industry due to inadequate planning in use of the working capital is immeasurable. If a business enterprise wants to maintain sound financial position, it should maintain optimal level of working capital because high financing made on working capital will create high liquidity and low return and vice-versa.

Service sector business generally needs low level of working capital. So it has been found that they are not concerned in working capital management but working capital management is equally important for them also. Therefore, it is highly essential to analyze the working capital requirement and its proper balance in ordinary course of business transaction.

This study is basically to find out the problem of working capital management of Nepal Life Insurance Company by analyzing the following research questions.

1. Is the composition of working capital of NLIC appropriate?
2. Is there sound liquidity position in NLIC?
3. How is working capital financed in this company?
4. How far is NLIC being able to utilize its current assets properly?
5. What is the profitability position of this company?
- 6.

1.4 Objectives of the study

The main objective of this study is to analyze working capital management of NLIC. But some specific objectives are as follows,

1. To analyze the size and structure of working capital and relationship between them of life insurance company with special reference to NLIC.
2. To analyze the relationship between operating income and different variable of working capital or turnover position of NLIC.
3. To check the efficiency of working capital of NLIC.
4. To see the trend of different variables of working capital and there composition with others.
5. To know whether the adequacy of working capital depends upon the nature of financing current assets or not.
6. To recommend the appropriated management system of working capital management.

1.5 Need of the study

Nepalese business environment is the threshold of challenge. In this situation, a firm adopts suitable strategies for its existence. The success or failure of business organization depends on its strategies which depend upon working capital. It is life blood of the company. Adequate and inadequate working capital may harm company because it directly affects on liquidity and profitability of the company. They should balanced and coordinate the different functional areas of business concern. Therefore, proper working capital management is very difficult task for financial manager. This study will be helpful to NLIC to know liquidity and profitability position. It is guideline to manage balance and coordinate its day operation and to maintain optimal level of working capital in the future. This study may be valuable for the researcher, scholars and the students who want to investigate about the working capital management.

Working capital management is being difficult task for managers because it covers the broad area. Most of studies related to working capital have been conducted on manufacturing company and no studied could be found that is conducted on life insurance companies. So, such study is needed to observe the management of working capital on such companies and suggest if required.

1.6 Limitations of the study

This study is mainly based on the secondary data which have been collected from web-site, books, financial statement and annual report of the company. Moreover, the study covers the information of only five years, which available in its web-sites and annual report. Due to time and resource constraints, the study has been conducted with the following limitations:

1. This study is primarily based on secondary source of data. Thus no effort has been made to verify the data provided by the NLIC and other corporate bodies from their official records.
2. This study is fully base on the student's financial resources and is to be completed within limited time from the view point of submission in partial fulfillment of the requirements for Masters Degree in Business Studies (MBS).
3. Unavailability of sophisticated computer software to carry out comprehensive test of all the methodologies.

1.7 Organization of the study

The study is organized on the following standardized pattern of usual sequence of topics:

Chapter I- Introduction

This chapter contains introductory part. It includes general background of the study, focus of the study, statement of the study, objective of the study, significance of the study, limitation of the study and the organization of the study.

Chapter II- Review of Literature

This chapter contains brief review of past research works and studies. It describes the theoretical framework of market price behavior and their significance along with their limitations.

Chapter III- Research Methodology

This chapter explains about the methods to collect the data, the sample size used and about the methods used to analyze the data.

Chapter IV- Data presentation and Analysis

This chapter presents the collected data in tabular form and in different charts, graphs and pictures, so that it could be easy to analyze them.

Chapter V- Summary, Conclusions and Recommendations:

This chapter finally summarizes the study in few paragraphs and tries to conclude the whole study; that is the result of the research. And finally depending upon the summary and conclusion, recommendations have been given.

CHAPTER- II

REVIEW OF LITERATURE

This chapter is considered to the review of major related literature about the major financial activities of life insurance companies in more details and descriptive manner. It provides the foundation for developing a comprehensive theoretical framework to the field of research in order to explore the true facts for the reporting purpose. This chapter reviews some basic academic courses, books, journals, articles, web search and annual reports and some research paper. In an effort to gather information some of the master's degree dissertation related to the topic has also been reviewed. In addition to independent studies carried out by well know experts and others are also taken into consideration. The review of literature is further classified as:

- Conceptual Review
- Review of related Studies

2.1 Conceptual Framework

Life Insurance Business is extremely vast different in character compare to other manufacturing and non-manufacturing business and it is long-term business, the company should not take its financial decisions focusing on present condition and traditional basis of insurance business. In this 21st centaury, we have modern mechanism of Accounting, Financial and Statistical tools to evaluate the long-term effects from kind of any financial decision required and the existing and up-coming life insurance companies should follow such mechanism.

Financial Analysis provides the clear vision about competency of the selected organization and helps to make roadmap for future action planning. As life insurance is different type of business, it has different type of revenue and expenditure account heads too compare to other. To discern about life insurance businesses and compare them, definitely the briefly analysis of whole transactions applied by life insurance companies is required.

The conceptual framework involves defining the concept and theories of relevant studies made to this date so it includes meaning of insurance, evolution of insurance, types of insurance, meaning of concept of gross working capital, concept of net working capital, classification of working capital, need of working capital, importance of working capital, determination of working capital, financing of working capital, working capital financing & investment policy and working capital cash flow cycle.

2.1.1 Meaning of Insurance

Developing modern society plays various roles in a society. They bear a major character, the inevitable uncertainty surroundings. Due to the uncertainty and competition factor the concept of insurance and its evolution was enforced and these days it is for more strengthening due to the competitive business environment and many dropped-down situations. Thus, the insurance seems as an auxiliary for the modern society and organized business company as well as individuals. Here are some relevant factors that are associated with the insurance.

Risk

Risk means uncertainties about future losses, in other words, the inability to predict the occurrence and size of losses. Generally risk can be defined as the probability of unfavorable outcomes. There are different meanings of risk. It can define at statistical terms and in insurance terms too. In the content of the insurance, it takes uncertainty of occurrence of economic loss. Every one wants to save own self from the risk or unfavorable situation. Thus, the people want to safeguard lay insuring them to the insurance companies. It is therefore said if there is no risk in the world, then why anyone should be insured.

Risk Management

Risk management is the systematic and efficient handling of pure risks. In simple word risk management is the planning, organizing, directing, coordinating and controlling process of risk. In practice risk management is the device and the process of decision making for either personal or organizational risky situation. Risk management is “a general management function that seeks to identify, assess and address the cause and

effect of uncertainty and risk on an organization. The purpose of risk management is to enable an organization to progress towards its goal and its mission in the most direct, efficient and effective path". (S. Williams, 1995-27)

Insurance

Insurance has been introduced to safeguard the interest of people from uncertainty by providing certainty of payment at a given contingency. Insurance companies mean the enterprises that are involved in insurance business. Insurance companies are integrated part of same business. The two are the two wheel of a car. In the absence of one, the other cannot functions.

It is quite hard to define the insurance to satisfy every viewpoint of insurance. "Insurance may be defined as a system of combining many loss exposures, with the cost of losses being shared by all of the participants" (F G Crane, 1980). Insurance can be explained as a social device to accumulate fund to meet the uncertain losses arising through a certain risk to a person insured against the risk. For the economic growth of the country, insurance Provides strong hard and minds, protections against loss of property and adequate capital to provide more wealth. Each member will have financial security against old age, death, damage, destruction and disappearance of his wealth including the life wealth. Through prevention of economic losses, insurance protects the society against degradation. Thus, the present, future, potential human and property insurance are well protected lay insurance.

"It may be an economic system of reducing the risk through transfer and pending of losses. A legal process of transforming in a contract of indemnity, a business institution providing many jobs in a free enterprise economy, a social device in which the losses of few are paid by many or as actuarial system of applied mathematics. (D. L. Bickihaup, 1983)

In some generic term, insurance is regarded as "cooperative risk carrying", transfer of specializing risk carriers, "redistribution of actual loss." Etc. "As a business institution, insurance has been define as a plan by which large number of people associate themselves and transfer to the shoulder of all risk that attach to and individuals." (John H. Magee, Life Insurance 1959:p.2). Thus, we come to know insurance as a device, which issue to minimize or block the risk through economic aspect.

We can use the insurance as a total of risk management is often misleading concept. “The word insurance sometimes is applied to a fund accumulated to meet certain losses, as well as to a simple transfer of risk. But the accumulated definition of insurance must include either accumulation of a fund or the transfer of risk but not necessarily both.” (R. I. Mehr, Fundamental of Insurance 1986:p.37). In Practice insurance involves spreading loss over more than one entity within a present period. In fact, “Insurance distribute the cost of the risk over a large group of individuals subjected to the some risk in order to reimburse the few who actually suffer from the risk.” (S. B. Ackerman, Insurance A Practice Guide 1951:p.3)

2.1.2 Evolution of Insurance

The terms of insurance developed through the faith of cooperation. The origin of insurance is lost in antiquity. Evidence is on record that arrangements embodying the idea of insurance were made in Bobylonia and India at quite an early period. In regard, the most sacred book of India, reference were made to the concept ‘yogkshema’ more or akin to the well being and security of the people. The codes of Hummurabi and Manu had recognized the advisability of provision for sharing the future losses. However, there is no evidence that insurance in its present form was practiced prior to the twenty century.

The earliest traces of insurance in the ancient word are found in the form of marine trade loans or carries contract, which include an element of insurance. Evidence shows that the marine insurance is the oldest form of insurance. Travelers by sea and land were very much exposable to the risk of losing their vessels and merchandise because the piracy on the open seas and highway robbery of caravans was very common. Besides, there were very risks. The risk to owners of such ships was enormous and, therefore to safeguard them, the marine traders devised a method of spreading over them the financial losses, which could not be conveniently borne by the unfortunate individual victim. The cooperative devices were quite voluntary in the beginning, but now in modern age it has been converted into modified shape of premium. The Brugains sold the marine policies of the present forms in the beginning of the fourteen

century, but the insurance development was not confined to the Lombards and to the Hansa merchants, it spread through out Spain, Portugal, France, Holland and England.

After the marine insurance; fire insurance developed in its present form. It organized in Germany in the beginning of sixteen century. It got momentum in England after the grate fire in 1666 when the fire losses were tremendous. Gradually, all types of insurance were developed at this form.

The Context of Nepal

In our society, the concept of insurance can be traced down to the Guthi system and joint family culture that has been prevalent since the ancient times. This system has provided security and assistance to individuals and families in time of need. With the change in the economy and social perspectives and the increasing complexities of the up coming small scale industries, an immense need for the domestic insurance company was felt to insure against any loss that could arise due to mishaps in industries.

With the development of the trade, commerce and industries, the necessity of insurance in our country was felt long ago. But there was no evidence of nay organized form of insurance in Nepal until 1947. Society was organized in an agricultural basis and socio-economic organization took care of any problem or calamity confronted to the community. The fire insurance in Nepal, at first was started by “mal chalani ra beema.” (Transport and Insurance Company). The “National fire insurance Company” of Calcutta is the first insurance company to open branch in Kathmandu in 1958, to transact fire insurance in Nepal. With development of the trade and the industry, establishment of Nepal Rastra Bank (Central Bank), Nepal Bank Ltd (Commercial Bank), co operative Bank, Nepal industrial Development Corporation, numerous other companies and corporations, the need of fire insurance in Nepal is growing in a manifold way. To meet ever growing needs of fire insurance Indian branches such as ‘Ruby’, ‘Oriental’, ‘Sterling’ and ‘Hindustan General’ and the domestic insurance company ‘Insurance and Transport Company’ and ‘Rastriya Beema Sasthan’ are transacting fire insurance business.

Though there is no organized form of fire insurance in Nepal, a kind of life which can be better termed “death insurance” is practiced since along time. Like “Insurance” there

is “Guthee”, which helps its member in facing in financial burden out of death. Its policyholders are known as “Gutheear” instead of insured. Though they have not got policies in black and white they have a kind of verbal understanding by which they can work smoothly without facing any difficulties. Gutheears pay a certain amount of money to the “Guthee” in same way as the insured pays premium to the insurer. Before 1951, Patana branch of insurance company was exploring life insurance business with the nationalization of “Life Insurance Corporation of India”. It is solely and wholly transacting life assurance business in Nepal. It established a branch office in Kathmandu in 1962. Thus, this corporation has got a kind of monopoly in life insurance business. However a need for an insurance company that would incorporate every type of insurance function was also felt at the national level. This resulted to establishment of Rastriya Beema Sasthan on 15th December 1968. The company was established as a private company with an authorized capital of 10,000,000/- and capital issued was 2,500,000/- under the Nepal company act, 2021. The company started its business by king Mahendra’s car. A year later, the company started operating with same name but under National insurance corporation Ac, 2025. On 21st feb1973, five years its establishment life insurance was introduced.

After the introduction of insurance Act. 1992, the number of private insurance companies came into existence. There are twenty-six insurance companies in Nepal.

See in Annex-

1

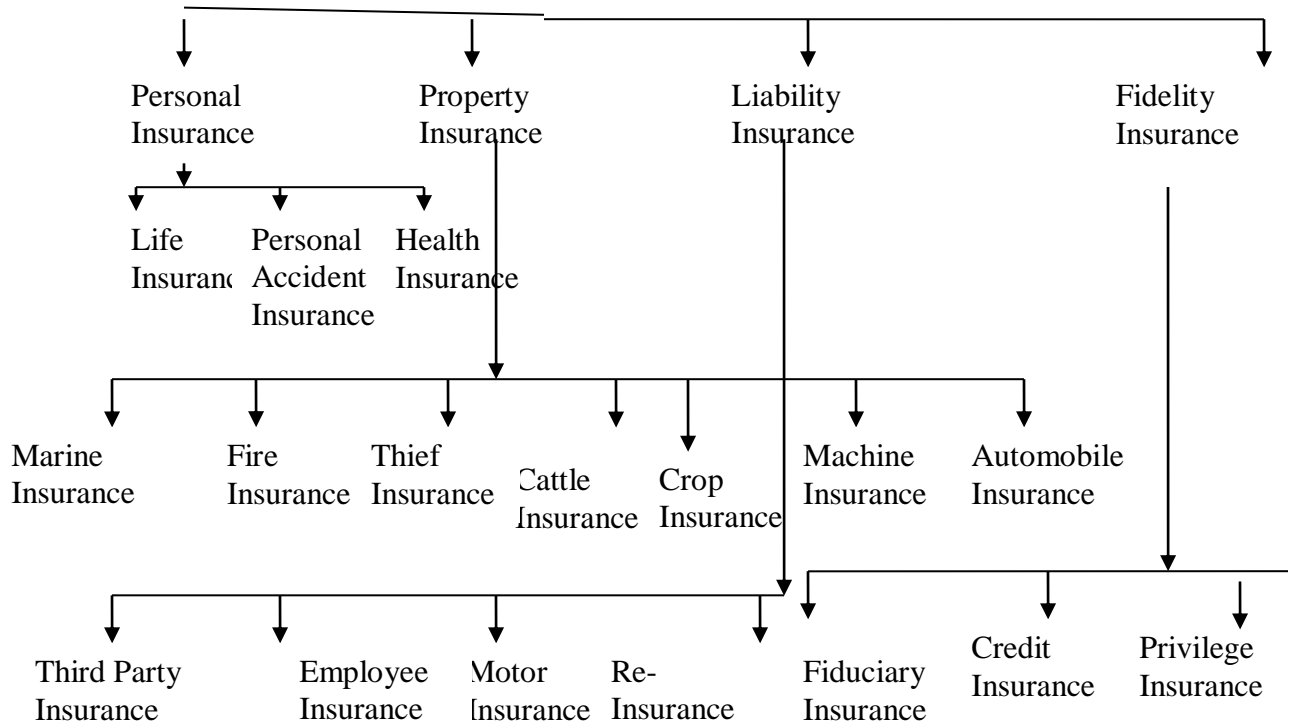
2.1.3 Types of Insurance

All the insurance companies provided certainty against the risk. When they can define in the generic concept, it will take the form like social insurance and private insurance. But we have divided the insurance into two parts as life insurance and general insurance. Life insurance may be define as the contract, where by the insurer in consideration of a premium, undertakes to pay a certain sum of money either on the death of the insured or on the expiry of the fix period. Life insurance is concern only about physical and mental accident risk. General insurance considers all insurance expect life insurance. However, we can classify the insurance as a life insurance and non-life insurance. Some of exports and writers classify the insurance in different

viewpoint i.e. forms the potential insurers view and other. When view from professional use insurance will take two broad forms as life insurance and non-life insurance. All the insurance under risk point of view in following way

Kind of Insurance from Risk Point of View

Insurance



Source: - Insurance principle and Practice In Nepal

Life Insurance

Life insurance provides protection against a wide variety of risk. However, life insurance provides sum of amount against the various risk related to the human being body through issuing different kinds of policies. Life insurance is a financial instrument for providing post death resources to support survivors or pay obligations of the estate of the deceased. Generally, life insurance as a type of insurance plan conducted by the insurers is directly related with providing assurance against the economic part of total life. “Life insurance contract may be defined as the contract, where by the insurer in consideration of a premium undertakes, to pay a certain amount of money either on the death of the insured or on the expiry of certain period.” (M. N. Mishra, Insurance

Principle and Practice, 1996: p. 49). Life insurance is particularly concerned with that aspect of human life. Since the insurance or assurance of a person's life is impossible because of a certainty of death of a person once born, life insurance only provides assurance against the economic aspect of human life not the assurance the human life, itself life insurance provides future benefits against unseen future accident and its helps to live comfort in retirement life. Life insurance never fulfill losses of human life, it measures in various risk and provides sum of amount in accordance to policy. Life insurance plays a vital role in the society. Therefore, it is also known as social insurance too. Life insurance can be defined as "a contract by the insurer, for certain sum of amount of money or premium proportionate to the age, health and other circumstances of the person whose life is insured if such person shall die within the period limited in the policy, will pay the sum specified to the person in whose favors such policy is granted.

Nepal insurance Act. 2049(section-2.1) has defined life insurance as the contract of insurance, effected on human life on the basis of age to pay fixed sum to the assured or his/her nominee, on the death or on the happening of any contingency, depended on human life in consideration of payment of fixed installment premium by the assured." Insurance companies provided the life insurance under various policies. Insurer provided various policies in accordance insured interest and desire. Generally, we can see following policies in life insurance company: Endowment policy, Child Endowment policy, Whole life policy annuity, Term Insurance Policy, Money Back Policy, Group Insurance Policy, Survivorship policy etc. Following insurance company provided life insurance service in Nepal.

- Nepal Life Insurance Co. Ltd. (NLIC)
- Rastriya Beema Shasthan
- American Life Insurance Co. Ltd. (ALICO)
- National Life Insurance Co. Ltd.
- Life Insurance Corporation Nepal Co. Ltd.
- Asian Life Insurance Co. Ltd.
- Gurash Life Insurance Co. Ltd.
- Surya Life Insurance Co. Ltd.

- Prime Life Insurance Co. Ltd.

The scope of life insurance business is seen to be bright because of its nature and popularity. So, the various investors are interested on invest in life insurance business, although having restriction of government and challenge of other affecting factor.

Non Life Insurance

Non life insurance is known as general insurance. It is a pure insurance because it can measure and risk in terms of money. General insurance is the insurance of property and liabilities risk of insured against some specified cost i.e. the premium. It includes property insurance, liability insurance and other forms of insurance. General insurance considers all kinds of risk except death of human body risk and it provided certainty against the risk through certain amount of money. This part of insurance includes the insurance and risk transfer of the property and liability of insured where, “property insurance, against loss arising from the ownership or use of the property, includes two general classifications. The first indemnifies the insured in the event of the loss growing out of damage to, or destruction of, his/her own property. The second form pays damages, for which the insured is legally liable, the consequence of negligent acts that result in injuries to other persons or damage to their property. This is known as liabilities insurance.” (David L. Bickhaup, 1983-p.80-81). General Insurance responsible to payment of any amount to insured. But, when the accident is held by negligent of insured, where the insurer does not responsible to pay any amount against the risk.

Insurer and insured may agreed to accept every kind of risk under their contract and risk transfer through the assurance. But the “coverage written by the property liability insurance insurers may be divided into five types, physical damage or loss, loss of income and extra expenses resulting from physical damage to property, liabilities, health and security.” (R. I. Maher, 1986-p.11).

We classified the insurance into two part i.e. life insurance and non-life insurance. These have been mentioned above details. In practice the insurers provided various types of non-life insurance policies, which are shown as follows at practically.

- Marine Insurance Policy
- Fire Insurance Policy
- Aviation Insurance Policy
- Automobile Insurance Policy
- Engineering Insurance Policy
- Boiler Insurance Policy
- Contractor All Risk Insurance Policy
- Burglary Insurance Policy
- Money In Transit Insurance Policy
- Personal Accident Insurance Policy
- Household Insurance Policy
- Medical Aid Scheme Insurance Policy
- Fidelity Guarantee Insurance Policy
- Women's compensation And Employers Liability Insurance Policy
- Machinery All Insurer Risk Insurance Policy
- Miscellaneous Insurance Policy

2.2.1 Meaning of Working Capital

The word 'working' means work at present. So, working capital is the capital, which working at present. Therefore, working capital is defined as all the short term assets used in day to day transaction of a form. Technically, working capital management is an integral part of overall financial management. It represents that part of fund, which circulates from one form of current assets to another form in ordinary course of business. For example, cash is used to purchase raw material which creates stock of finished goods which is sold for cash. Therefore, working capital management is concern with the problems that arise within attempting to manage current assets, the current liabilities and the interrelationship that exists between them. The current assets are such types of assets, which can be converted into easy cash within a year.

Making suitable current assets investment policy is a hard task for financial manager. It is must to maintain the good balance of the adequate working capital. Adequate working capital brings security, conferment & continued existence of the business. On, the other hand, excess investment could affect profitability & inadequate amount of

working capital can threaten solvency of the firm” (I. M. Pandey, Financial Management-1999:p.808)

The financing decision on working capital management is planning, utilizing & controlling its current assets in term of the requirements of the company and basically concern with profitability and liquidity position of the company. The skill of working capital management should be unique to make an efficient use of the funds for minimizing the risk of loss to attain profit objectives.

2.2.1.1 Concept of Gross Working Capital

“Gross means total and working capital is short term assets. So, gross working capital means total current assets. In the other words, the term working capital regarded as the firms total current assets. It focuses only on the optimum investment in current assets and financing of current assets” (My Khan & P. K. Jain, Financial Management, text & Problem-1999:p.604). It consists of cash, marketable securities, receivables and inventories. “From the management viewpoint, gross working capital deals with the problem of managing industrial assets in the day to day operation.”(S.C. Kuchan, Financial management-1988:p.157). The gross concept emphasizes that excessive investment in current assets which effects profitability as idle investment that yields nothing. Similarly, inadequate investment in current asses makes difficult to carry out the day to day operation of the business smoothly. Gross working capital concept is also known as quantitative concept because it concerns about the current liabilities and different between current assets and current liabilities. This concept summarizes as;

Gross Working Capital = Total current Assets.

2.2.1.2 Concept of Net Working Capital

Net working capital is the different between current assets and current liabilities. It focuses the liquidity position of the firm in the long run. This concept is more appropriate than gross working capital concept because it considers current liabilities. Net working capital can be positive or negative. When current assets exceed current liabilities, it is positive net working capital and when current liabilities exceed current assets, it is negative working capital. The concept of net working capital helps the management to look for permanent sources of its financing science working capital under this approach does increase with increase in short term borrowing. “Net working capital is the different between current assets and current liabilities and this amount is financed by long term fund. This concept is determining optimum mixture of short term capital and long term capital of business enterprises.” (K. C, Ot. Cit. 1998: p.82). This concept is equally important in every organization but more appropriate to running business i.e. the business running at present. It enables a firm to determine how much amount is left for operational requirement. Net working capital is not very useful for comparing the performance of different firms as a form of liquidity, but it is useful for internal control. This concept is also known as qualitative concept of working capital. This concept says,

Net Working Capital = Current Assets – Current Liabilities

2.2.2 Classification of working Capital

Working capital can be defined into permanent working capital and temporary working capital. They are also called fixed working capital and variable working capital respectively.

2.2.2.1 Permanent Working Capital

“Permanent working capital is the minimum amount of current assets required through the year to conduct a business on a continuous and uninterrupted basis, even during the dullest season of the year. It will remain permanently in the business and will not be returned until the business is wound up.” (Khan & Jain, Financial Management Text & problem-1999: p.172). It shows the fixed nature of capital and is kept permanently in the company but it can convert into cash within a year. That’s why; it is categorized in

working capital. The financing source of this capital is long term fund. Business firm could not be able to serving itself in the competitive market without permanent working capital. For instance, every business enterprise has to maintain a minimum stock of raw materials, working progress, finished goods, spare parts etc. It always required money for the payment of wages and salaries through the year. Permanent working capital represents the current assets, which is required on a continuing basis over the enter year. It is maintained as the medium to carry on operations at any time. This permanent working capital can be divided into two forms.

- ❖ Regular Working Capital
- ❖ Reserve margin Working Capital

Regular Working Capital

These types of working capital are need to needed to achieve the operation cycle of the business enterprise. Regular working capital is known as minimum liquid assets which are useful to convert cash to inventory, inventory to account receivable and account receivable to cash of business enterprises.

Reserve Margin Working Capital

If an organization keeps more than regular working capital that is called reserve margin working capital. If any unimagined crisis and problem that can hit the company and the financial market occurs, reserve margin working capital is needed or working capital is kept to the situation like, inflation, deflation, strike, natural disaster etc. These types of working capital can be referred as the nature oriented current assets.

2.2.2.2 Temporary Working Capital

This working capital which changes with the change in production unit and sales is referred as temporary variable working capital. Production and sales varies time to time depending upon marker demand. If the working capital need increase and decrease with the change in business activities, that is known as variable working capital. It is required in seasonal change in the business and certain abnormal condition like strikes, lockouts, dull market conditions, cut-throat competition etc. Seasonal working capital is the additional amount of current assets particularly cash, receivables and inventory which is require during the more active business season of the year.

Seasonal Working Capital

Many businesses are seasonal. Their sales and production is high in some season and low in some season. During the high selling season, extra working capital should be managed. Sugar mills, tobacco mills, jute mills, fruit mills, fruit purification industry are types of industrial business that are operated in seasonal nature. Extra working capital managed in these industries is seasonal working capital. These types of industries have to manage extra working capital in their seasonal production and sales.

Special Working Capital

Additional working capital is needed to business enterprises for special program like examine the demand of the new product, special promotion of the product and wide market programs. Such type of working capital is called special working capital.

2.2.3 Need of Working Capital

The need for working capital to run day to day business activities can not be overemphasized. It helps to achieve entire goal of the business and maximize the wealth of the shareholders. Generally, working capital is required to spend on raw material, salary, wages, rent, electricity, advertisement and other sales related expenses etc. Beside this, the business enterprises have to spend on advertisement and promotion of the product, which helps in sales of product. All these expenses made should be made the time of the production but cash is received after sales of the product. So, working capital is needed. Generally working capital is needed for following motives.

The Transaction Motive

“A business firm holds cash for smooth running of the business. To conduct its ordinary business and making purchases and sales, working capital is needed. In the business, where billings are predictable cash, inflows can be scheduled and synchronized with the need for the cash outflow.” (J. Fred Weston & Thomas E. Copland, *Marginal Finance*-1990). In a seasonal business more cash be needed and if firm wants to operate transaction smoothly, they have to keep inventory of raw materials and finished goods. Generally, a business firm invests on marketable securities that can be converted into cash in a short time. It is temporary investment. So, to run business smoothly in a

uninterrupted basis a business firm has to manage working capital for transaction motive.

The Precautionary Motive

The precautionary motive refers to the holding of cash to meet the random and unforeseen fluctuations in cash flow. For example, unpredictable changes in demand and supply, strikes, failure of important customers, unexpected slow down in collection of account receivable etc. Thus, the firm needs the working capital to meet any contingencies in future.

The Speculative Motive

An organization may meet following opportunities at any time of its life.

- Opportunities to purchase raw material at a reduced price payment of immediate cash.
- To purchase at favorable price.
- To speculate on interest rate.
- Opportunities of profit making investment etc.

To take advantage from above opportunities, working capital is needed which is referred as working capital for speculative motive. “Working capital also represents ‘war chest’ or pool of funds from which a firm may draw quickly to meet a short term opportunities, including acquisition.” (Weston & Brigham, Op Cit-p.441). Therefore cash and marketable securities are needed for speculative motives.

Compensation Balance Requirement

The commercial bank performs many functions for business firms. Sometimes firm pays service charge by direct fee and sometime by maintaining compensating balance. Compensating balance is the advance deduction by bank on loan. It represents that the firm agrees to maintain in its checking account with the bank. With this assurance, the bank can provide such funds as long term loan.

2.2.4 Importance of Working Capital

Most of firms aim at maximizing the wealth of shareholders. The firm should earn sufficient return from its operation. The extent to which profit can be earned naturally depends upon the magnitude of sale among the other things. For constant operation of business, every firm needs to hold the working capital components cash receivable, inventory etc. therefore every firm needs working capital to meet the following motives:

(i) The Transaction Motive

According to transaction motive a firm holds cash and inventories to facilitate smooth production and sales operation in regular. Thus, the firms need the working capital to meet the transaction motive.

(ii) The Precautionary Motive

Precautionary motive is the need to hold cash and inventories to guard against the risk of unpredictable change in demand and supply forces and other factors such as strike, failure of important customer, unexpected show down in collection of account receivable, cancellation of some order for goods and some other unexpected emergency. Thus, the firm needs the working capital to meet any contingencies in future.

(iii) The Speculative Motive

Speculative motive refers to the desire of firm to take advantage of following opportunities:

- ✚ Opportunities of profit making investment.
- ✚ An opportunity of purchase raw materials at a reduced price on payment of immediate cash.
- ✚ To speculate on interest rate.
- ✚ To make purchase at favorable price etc.

Thus the firms need the working capital to meet the speculative motive. The objective of financial decision making is to maximize the shareholder's wealth. To achieve this, it is necessary to generate sufficient profits. The extent to which profit can be earned will

naturally depend upon the magnitude of the sales among other things. A successful sales programme is, in other words, necessary for earning profit by any business enterprise. However, a sale does not convert into cash instantly; there is invariably a time lag between the sales of goods and receipt of cash. There is therefore, a need for working capital in the

Form of current assets to deal with the problem arising out of the lack of immediate realization of cash against goods sold. Therefore, sufficient working capital is necessary to sustain sales activity. Technically, this is referred to as the operating or cash cycle. The operating cycle is the time duration required to convert sales, after the conversion of resources into inventories, into cash (Pandey, 1999:810). Some of the more significant reasons why working capital management is important are as follows:

1. The size and volatility of working capital make it a major managerial concern. Managers spend much of their time on the day-to-day activities that revolve around working capital management.
2. The relationship between sales growth and working capital is both close and direct. As sales increase, a firm must increase inventory and accounts payable. Increase in sales generates a higher level of accounts receivable. So working capital must be managed as firms increase or decrease their scale of operation and sales. At the same time, some of the current liabilities, especially accounts payable, tend to increase and decrease spontaneously. This spontaneous short-term financing (due to use of trade credit) must be kept in mind as we consider both the CA and then financing (by both current and long-term sources).
3. WC has a direct relationship with the inflows and outflows of cash. WCM ensures the right timing and right amount of cash inflows and outflows. This makes the firm able to meet the obligation in right time and there will not be idle cash in hand. This is done by calculating inventory conversion period, receivables collection period and payable deferral period.

2.2.5 Determinant of Working Capital

A firm should plan its operations in such a way that it should neither too much nor too little working capital. Since, there are no set of rules to determine the working capital, the firm itself should manage working capital in proper way by considering the need of

business. The total working capital requirement is determined by a wide variety of factors. They can be classified into two parts.

2.2.5.1 Internal Factors

Internal factors are those factors which affect directly in determining the need of working capital they are

Nature of business

Trading and financial firms need a large sum of money to be invested in working capital. Inversely, public utilities need limited working capital only for the use of cash sales and supply services. The industrial units also require a large amount of working capital though it varies from industry to industry depending on their assets structure. Working capital requirements most of the manufacturing concern to fall between two extreme requirements of trading firms and public utilities.

Size of Business

A business firm, having more transaction quantity, needs more working capital than a firm having less transaction quantity. However, based on fixed assets and sales ratio of the firm, small scale business needs more working capital than large scale business firm because large scale business firm cannot collect working capital in right instant of time.

Rapidity of Turnover

A business firm should collect rapidly to keep low working capital and inventory turnover and receivable turnover should be fast.

Manufacturing Process

The requirement of working capital increases due to the length of their manufacturing process or production cycle in any concern and vice versa.

Growth and Expansion of Business

Growth and expansion of business affects in determining the requirement of working capital. If the firm grows, it naturally needs more working capital than those static one and vice versa.

Firms Production Policy

If demand of the firms product is seasonal, there are two options open for such enterprises either they confine their production only to periods are purchased or they follow a steady production policy throughout the year and produce goods at a level to meet the peak demand. In peak season firm should operate on full capacity and in slack season, working capital should be reduced. It should keep more stock of raw materials and finished products.

Dividend Policy

Dividend should be paid out of cash balance, which decreases the working capital. If firm earn regular income and has followed the liberal dividend policy it reduce the working capital conversely, if it retain profit, working capital requirement is low.

Terms and Conditions of Firm

If a company can purchase on credit and sales on cash, low working capital is required if he could sale on credit and purchase on cash, high working capital is required.

Operating Efficiency of Firm

The management can contribute to a sound working capital position by operating efficiently, which refers to the efficient utilization of resources to minimum cost. Efficiency of operation accelerates the pace of cash cycle and improves the working capital turnover.

2.2.5.2 External Factors

The need of the working capital also affected by some external factors. These factors should also be considered while managing working capital. They are;

Business cycle

Business cycle fluctuation is a one external factor of determinant of working capital requirement. The recession period need more working capital than in the period of boom and recovery.

Price Level Change

A firm requires maintaining the higher level of working capital if price level rises because it needs more fund due to increase in price and vice versa.

Access to money market

Firms having easy access to commercial banks and other sources, which provide short term loan facilities, require low working capital. Alternatively, firms having difficulties in access to money market requires high working capital.

Technological Development

If manufacturing is long, huge amount of working capital is needed. Thus, if there are alternative technologies of manufacturing of product, the technological process with the shortest manufacturing cycle is chosen.

Transportation and Communication Facilities

If the development of transportation and communication facilities in the country is good, low working capital can do enough work. Otherwise firm should manage high working capital.

2.2.6 Financing of Working Capital

The most important works of the financial manager is to arrange and manage working capital to meet organizational goal. Two factors should be considered while managing working capital. They are cost and risk. Therefore, only appropriate financing of working capital may lead the business firm. Firm can adopt different financing policies. They are broadly categorized into three categories.

Long Term Financing

Long term financing reduce the cost of the financing which reduces the cost of the business. In short, long term financing has high liquidity and low profitability. The sources of long term financing are share capital, preference share capital, debentures and long term debt from the financial institutions.

Short Term Financing

The short term financing is obtained for a period less than one year. The sources of short term financing refer to the working capital funds from bank, public deposits, commercial papers etc.

Spontaneous Financing

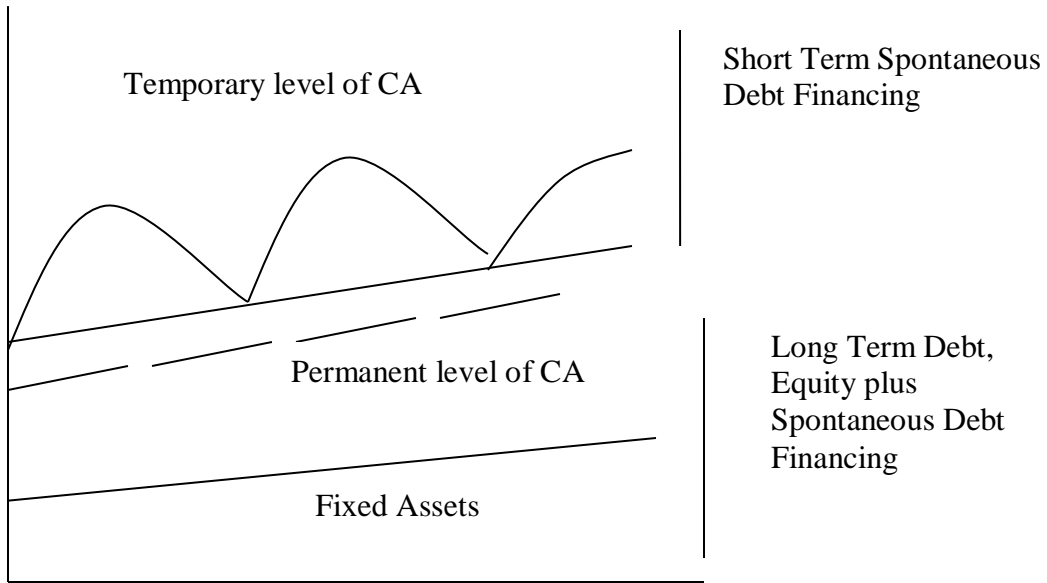
Spontaneous financing refers to the automatic source of short term funds arising in the normal course of the business. Trade credit and outstanding expenses are two major source of spontaneous financing. The financial manager always likes to finance its working capital with spontaneous sources because the real choice of current assets financing of manager, in reality, is in between short term or long term source of financing.

2.2.7 Working Capital Financing & Investment Policy

Current Assets Financing Policies

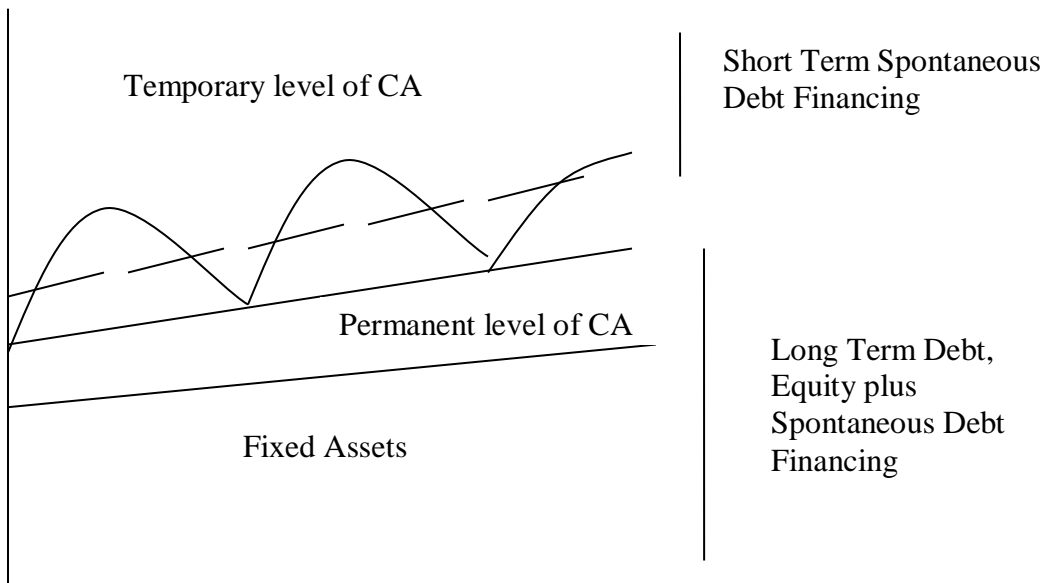
A. Aggressive Policy

Aggressive policy carries a low level of current assets (marketable securities, cash, inventories and receivables) to sales. Aggressive policy uses more short term debt and less long term debt for the financing current assets. Therefore, an aggressive policy results in a higher risk and higher profitability. In figure;



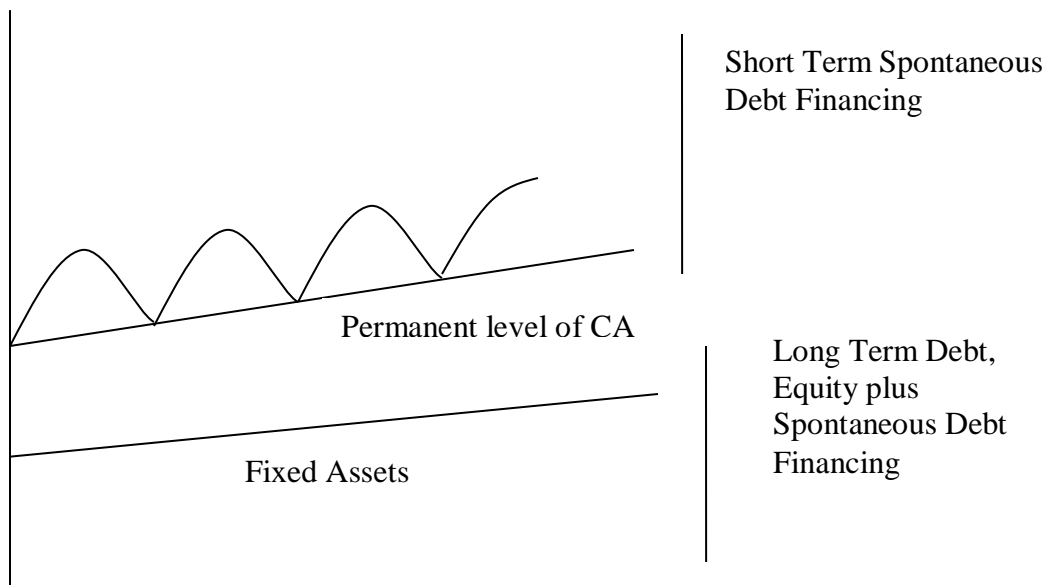
B. Conservative Policy

Conservative policy carries a high level of current assets to sales. Conservative policy uses more long term debt and less short term debt for financing current assets. Therefore, conservative policy carries out lower the risk and return. In figure;



C. Moderate Policy

Moderate policy carries an average level of current assets to sales. Moderate policy uses mid range of short term debt and long term debt of above two policies. Therefore, moderate current assets financing policy's results in mid range risk and profitability.



Current Assets Investment Policies

“Current assets investment policies determine the appropriate level of current assets, both in total and specific accounts.” (Dev Dharma Raj sapkota & Jamuna Koirala, Financial Management-2000 p.249) Generally, there are three types of investment policies which can be followed by business enterprises.

A. Relaxed Working Capital

“In this policy, firm holds relatively large amount of cash, marketable securities and receivables to support of given level of sales. In addition, a company is motivated to sales by applying liberal credit policy.” (Ibid) Therefore, it creates longer receivables collection period. Similarly, it creates longer inventory and cash conversion cycles. Thus, this policy provides the lowest expected return on investment with lower risk.

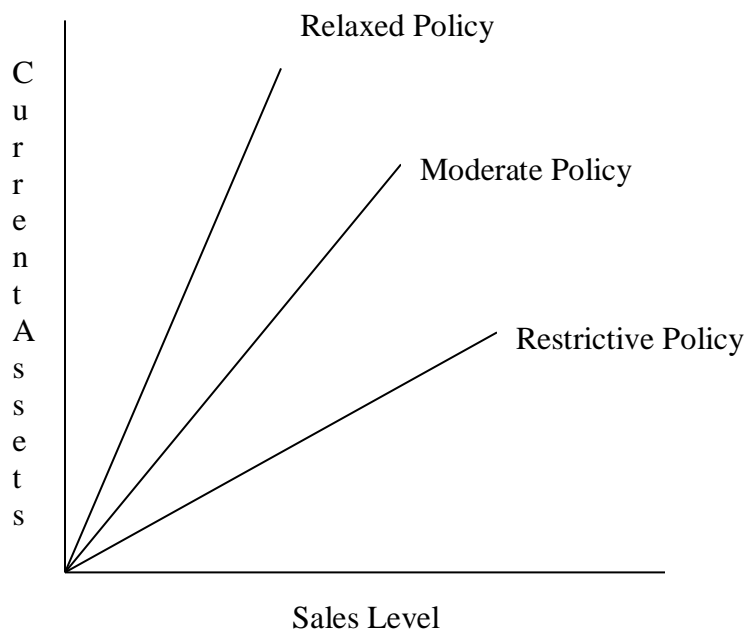
B. Restrictive Working Capital

Under restrictive working capital assets policy, a company has high control in current assets. “The firm holds minimum level of inventory, marketable securities, receivables and cash to support given level of cash. This policy tends to reduce the inventory, receivables and cash conversion period.” (Ibid) The company follows tight credit policy and bears the risk of losing sales. However, this policy provides the highest return in investment with higher risk.

C. Moderate Working Capital

In this policy, both the risk and return are moderate. The company holds the average level of current assets. (In between relaxed and restricted policies)

We can show these policies with the help of following figure.



2.2.8 Working Capital Cash flow cycle

“The continuing flow from cash to supplier, to inventory, to account receivables and back into cash is known as working capital cash flow cycle. It continuously repeats. The cycle demonstrates the conversion of raw materials and labor to cash. Hence, this concept is also known as cash conversion cycle model.” (Ibid) This general concept has been applied to more complex business and it is useful when analyzing effectiveness of

a firm's working capital management. Generally, following phases define cash flow cycle.

- ❖ Purchasing raw materials create account payable.
- ❖ Labors are used to convert raw material into finished goods which creates outstanding wages.
- ❖ Sales of finished product create account receivable.
- ❖ Generally, outstanding wages and account payable should be paid earlier than receiving account receivable. So, loan should be taken.
- ❖ Finally, cash is collected from account receivables and paid to short term loan.

There are following four factors of cash conversion cycle model.

Inventory Conversion Period (ICP)

The inventory conversion period is the average length of the time required to convert raw materials into finished goods and then sales these goods. This period is indicates the efficiency of the firm in selling its product. Inventory conversion period is calculated by dividing inventory by the cost of goods sold per day.

$$\text{Inventory Conversion Period} = \frac{\text{Inventory}}{\text{Cost of Goods sold}} \times 360$$

Receivable Conversion Period (RCP)

The receivable conversion period is the average length of the time required to convert the firm's receivables into cash. It analyses to determine collection of debtors and also the efficiency of collection effects. Generally, longer the collection period, more efficient in the management of credit. It is also known as average collection period and days sales outstanding (DSO). It is calculated by dividing account receivable by the average credit sales per day.

$$\text{Receivable Conversion Period (RCP)} = \frac{\text{Re ceivable}}{\text{Average credit sales per day}}$$

Payable Deferred Period (PDP)

The payment deferred is the average length of the time between the purchase of raw material and labor and payment of cash for them. It shows the average length of the time require to make the cash payment of credit purchase and outstanding wages. It indicates the spread of creditors payable. A high payable conversion is the favorable condition for the company. It is computed by dividing account payable by the daily credit purchase.

$$\text{Payable Deferred Period (PDP)} = \frac{\text{Account Payable}}{\text{Credit Purchase per day}}$$

Cash Conversion Cycle (CCC)

The combination of above three periods makes cash conversion cycle. In other words, the cash conversion cycle is the average length of time between payment for the purchase of labor and raw materials to manufacture of a product until the collection of the account receivable associate with the sales of the product. It measures the length of the time that firm has funds ties up in working capital. It is important financial tools and also quick and convenient way of analyze the on going liquidity of the firm over time. The cash conversion cycle determine by using the following equation.

$$\text{Cash Conversion Cycle (CCC)} = \text{Inventory Conversion Period} + \text{Receivable Conversion Period} - \text{Payable Deferred Period, or}$$

$$\text{CCC} = \text{ICP} + \text{RCP} - \text{PDP}$$

Science ICP and RCP are inflow and PDP is outflow. So, ICP and RCP should be added and PDP should be deducted in calculation of CCC.

To shorten cash conversion cycle following policies should be adopted.

- ❖ Reducing the inventory conversion period by processing and selling goods more quickly.
- ❖ Reducing the receivable collection period by speeding up collections.
- ❖ Lengthening the payables deferred period by slowing down, its own payment.

2.3 Review related studies

Prof. Manohar K. Shrestha (1983 July)

In his article, “working capital Management in public enterprises: A Study on Financial results and Constraints.” he measured ten selected public enterprises working capital needs focusing on liquidity, turnover and profitability position of that public enterprises. In the analysis, he found that four public enterprises had maintained adequate liquidity position; two public enterprises had excessive liquidity position and rest four public enterprises had failed to maintain desirable liquidity position. About turnover, two public enterprises had negative working capital turnover, four had adequate turnover, one had high and remaining three public enterprises do not seem achieve satisfactory turnover of net working capital. Among these, four public enterprises were operating in loss and rests were on profit. After analysis these constraints, he had brought following policy issues.

- ❖ The managers of Public enterprises were being unable to give attention to working capital management.
- ❖ Public enterprises are being unable to show positive relationship between turnover and return on net working capital.
- ❖ There is a lack of suitable financial planning for determining their working capital needs in public enterprises.
- ❖ There exists no proper consistency between liquidity position and turnover of assets.

His suggestive measures to overcome from the above policy issues were;

- Identification of needed funds.
- Regular checks.
- Development of management information system.
- Positive attitude towards risk and return.
- Determination of right combination of short term and long term sources of funds to finance working capital needs.

Mr. Kundan Datta Koirala & Radhe Shyam Pradhan's Study (1983)

Kundan Datta Koirala & Radhe Shyam Pradhan jointly conducted a study on, "working Capital Position of selected Corporations of Nepal". For the study they selected five manufacturing and six non-manufacturing enterprises. The study was concentrated on the size of investment, trends on investment; need to control the investment on current assets management. Published article had used only primary data and distributed 200 questionnaires. The topic of the article was "Some Reflection on Working Capital Management in Nepalese corporation."

Major finding of study were,

- ❖ Inventory management was of great significance in manufacturing corporations and the management of cash and receivable was of great significance in non-manufacturing corporations.
- ❖ Both working and fixed capital was found to be difficult to manage in manufacturing corporations but in service organizations working capital was found to be more difficult to manage as compared to fixed assets.
- ❖ The major reason for holding inventories is to facilitate smooth operation of production and sales.
- ❖ Investment in total assets had declined over a period in both manufacturing and non-manufacturing corporations. However, the manufacturing corporations have consistently more investment in cash and receivable as compared to non-Manufacturing Corporation.
- ❖ The management of cash involves more problems as compared to the management of the account receivables and inventories. However, inventory management is more problematic to manufacturing corporations and the management of cash and receivables is more problematic in non-manufacturing corporations.
- ❖ To provide a reserve for routine net outflows of cash is the major motive for holding cash in Nepalese corporations.
- ❖ The major factor affecting the large investment in receivable is found to be the liberal credit policy followed by the Nepalese corporations. The late paying practice of customer is also responsible for large investment in receivables.

However, corporations are reluctant to take inefficient collection of trade credits as one of the major affecting receivables.

Prof. K. Acharya (1985 Jan-March)

In his article on “problems and impediment in the management of working capital in Nepalese enterprises” he said that working capital management, especially in public sector, has been a relatively weak area. He has described operational problems as well as organizational problems faced by the organizations. Some of these problems are;

Operational Problems

- ❖ Slow inventory turnover.
- ❖ Change in working capital may low impact on profitability.
- ❖ Current liabilities can increase largely than current assets.
- ❖ They had not followed the conventional proportion of debt and equity as 1:1.
- ❖ Absent of apathetic information management system.
- ❖ The performance evaluation tools and techniques like break even analysis, funds flows analysis, ratio analysis were either undone or ineffective in most public enterprises.
- ❖ Monitoring of the proper functioning of working capital management has never been considered a managerial job.

Organizational Problems

- ❖ Lack of regular evaluation of financial results as well as regular internal and external audit system.
- ❖ Most of the public enterprises being unable to present their capital requirements with proper justification.
- ❖ Functioning of finance department was not satisfactory.
- ❖ Some public enterprises are facing the problems of under utilization of capacity.

Mr. Acharya was not satisfied with the performance of enterprises. To make an efficient use of funds for minimizing risk of loss and to attain, Mr. Acharya has made some suggestions and recommendations. They are;

- ❖ Public enterprises should take care of negatively affecting policies directives from Nepal government itself.
- ❖ Public enterprise should keep their consumers alive to consume their commodity.
- ❖ Public enterprise should avoid fictitious holding of assets immediately.
- ❖ They are also suggested to avoid the system of crisis decision, which prevailed frequently in their operations.
- ❖ Finance staff must be acquainted with the modern scientific tools used for the presentation and analysis of data.
- ❖ Their level of investment should optimize.

Surendra Pradhan (2000)

In his book, “Basic of financial Management” he has shed light on financing of working capital as, “There are two ways of financing working capital requirements i.e. internal and external sources. Internal sources include use of retained earning, depreciation fund and share capital. External sources include trade credit, advance from costumers, short term deposit, cash credit, short term government loan etc.” Generally, a resource or a combination of resources of financing to be used depends on the type of current assets (permanent and variable) to be maintained. The long term sources such stock issues, debts and bonds are appropriate to use for permanent types of current assets only in the spontaneous types of short term resources are not enough or not available to covered the required size of permanent current assets. Types of he financing may be distinguished into three groups.

- 1) Long term financing: The sources of long term financing include the long debt (i.e. term loan and bonds), common stock, preferred stock and retained earnings.
- 2) Short term financing: It includes short term bank loan, notes payables, line of credit, overdraft, factoring, pledging, blanket line etc. Those are obtained for period less than one year.
- 3) Spontaneous financing: It includes operating sources like trade credits, account payable, accruals etc.

A company can follow three approaches on the mix of short term and long term financing, namely conservative, aggressive and matching approach. If more short term funds are used for financing current and fixed assets, it can be considered as aggressive approach, conservative approach refers to more use of long term sources. In working capital management, an important aspect is matching the type of financing with the types of assets. However, degree of managerial aggressiveness often guides in choosing a certain combination of short and long term financing for working capital.

2.4 Review of Relevant Unpublished Thesis

Aryal B. P. (2002) has conducted his study on “Working Capital Management of Nepal Telecommunication Corporation.” The main objective of the study was to examine the working capital position of Nepal Telecommunication Corporation (NTC) and to analyze the size growth, liquidity, profitability and efficiency of working capital. For the research, he took five years study period and used secondary data. He has calculated various financial ratios that help him to fulfill these objectives.

His major findings are as follows;

- There was sufficient amount of cash to meet the current obligation of the corporation, which indicates the sound liquidity position and no fear of technical insolvency.
- All the variables of working capital as well as volume of sales were in increasing trend and the corporation was operating with attractive profit.
- Size of the working capital affects the trade off between risk and profitability of NTC and there is high liquidity in corporation.
- Company has used long term fund to finance in working capital and it has followed conservative financing policy. In addition, the company has reduced external financing by using its internal fund.
- Because of high investment in current assets, the current assets with respect to total assets and net sales are in increasing trend.
- Profitability position of NTC is not satisfactory because of low return in comparison to the investment in current assets. But the liquidity condition of the company is favorable.

He has suggested that the company should optimize its liquidity position concentrated in the collection period. Again, he has given advice to apply in cash management for the optimal cash balance and excess cash can be invested in marketable securities.

Pathak P. K. (2002) has carries out his study on “An Evaluation of Working Capital Management of Nepal Lube Oil Ltd.” His objective was to appraise the working capital management of Nepal Lube Oil Ltd (NLO) with respect to cash, credit and inventory management and to study the relationship between sales and different variables of working capital. He has taken five year study period and applied the secondary data.

The major findings of the Pathak’s study are as follows;

- Inventory constitutes the most important and largest element of working capital.
- Current assets with respect to total assets are in increasing trend and it has occupied high portion than fixed assets.
- Cash has occupied smallest portion of current assets and cash conversion cycle is 26 days.
- Company has held highest portion of inventory and liquidity position of the company is not well i.e. current and quick ratios are below standard value and turnover position of the company was also found weak because of high collection period.
- Company has followed moderate policy of financing because it has financed less than half of its current assets through short term financing where as long term financing is rest.

Mr. Pathak has given following suggestions for the company;

- The company should increase the turnover and reduce the cash conversion period.
- The company should determine certain rate of return on its investment and sales target should be set.
- To control the excess and shortage of working capital of the company, the company should always concern about the current assets and current liabilities and regular check should be made.

He has also given the advice that the company should attention to manpower planning and should avoid both under staffing and over staffing.

Gurung O. B. (2002) has carries out his study on “A Study on Working Capital Management of Nepal Lever Ltd.” The objective of this study is to analyze the liquidity position, composition of working capital, assets utilization and profitability position of Nepal Lever Ltd. (NLL) He has taken five years sample period and applied secondary data.

His major findings are as follows;

- Inventory holds the major portion of current assets followed by miscellaneous current assets, sundry debtors, prepaid expenses and advances and cash and bank balance. All the components of the current assets are fluctuating during observed period.
- Current ratio contains high amount of inventory and receivable but they don't show any significant relationship between current assets and current liabilities.
- Liquidity position of NLL is not satisfactory since current and quick ratio are below satisfactory level but increasing trend implies that liquidity position can be expected to be good in future.
- Current liabilities vary during the study period and doesn't relate to each other. It shows the company has not taken serious decision on financing policy.

- The company has preferred short term financing rather than long term financing which has been indicated by the increasing trend of current liability to long term liability ratio. The company applies moderate financing policy.
- Inventory turnover and receivable turnover was fluctuating during study period. This indicates that the company has born high risk.
- Profitability position of the company is in continuously increasing trend, which seems satisfactory for the company.

His suggestions for the company are, company should determine certain proportion of current assets components to improve the current assets management in future and company should inventory and receivable level for adjusting with sales and production level. To balance them, company should improve marketing policy and credit policy. Credit policy is highly influenced by sales level. Similarly, the company should determine appropriate financing sources.

Shrestha B. (2002) has carries out a research on “A Study on Working Capital Management of Dairy Development Corporation.” The main objective of the study is to appraise the working capital management of Dairy Development Corporation (DDC) and to study the relationship between sales and different variables of working capital. To achieve these objectives, he has taken five years study period and applied the secondary data.

Major findings of his study are as follows;

- The major component of current assets are inventory, cash, bank balance, sundry debtors and miscellaneous current assets in which inventory hold the major portion and cash hold the smallest portion.
- Company’s inventory in the form of working capital has been increasing. The average inventory in current assets is lower with respect to net fixed assets during the study period and DDC has no clear vision about the investment in current assets to fixed assets proportion.
- There is growing tendency of investment over current assets.

- Liquidity position of the company is not well because current and quick ratios are below standard value.
- Because of the high collection period, turnover position of the company is weak.
- The overall return position of the DDC is negative because of inefficient utilization of current assets, total assets and shareholders wealth.

He has suggested that DDC should minimize its current assets by adjusting on inventory and cash balance. It should increase production capacity by investing capital goods. Again, he has given advice to reduce the operating cost by avoiding unnecessary manpower and expenses.

Miss. Rai P. (2006) has conducted a research study on "Financial Activities of Nepal Life Insurance Company Limited". In this study, she has analyzed financial activities of a single life insurance company, NLIC and analyzed about different policies and markets of the company. She analyzed the financial condition and performance of NLIC using different ratio analysis and statistical tools. After the detailed study and analysis she concluded that:

- ❖ Under the assets management ratios of NLIC, the position of the fixed assets turnover ratio of NLIC shows a rising trend over the last three years. But there is decline trend in the F.Y. 2060/061. Similarly, total assets turnover ratio has risen in F.Y. 2058/059 in compare to F.Y. 2057/058., but decline in F.Y. 2059/060. Thus, analyzing the trend of fixed assets and total assets turnover ratio of NLIC, we can summarize that the company is effective in using its fixed assets over the years to generate to income or sales.
- ❖ The debt ratio had a significant rise from the initial year to last fiscal year. As compared to last F.Y. 2059/060 to this F.Y. 2060/061. The debt ratio of NLIC indicates that the creditors (debt) are not having more control over the financing of the company.
- ❖ Under the profitability ratio of NLIC, we can observe the return on total asset ratio shows a fluctuating trend over the span of four years of its operation. ROA

was minimum on 1st year at 27.36% and maximum on 2nd year at 295.09%. The profit margin ratio of the company has a rising trend over the span of four years of its operation. Similarly, ROE of the company shows a rising trend over the span of four years. ROE was minimum in 1st year at 3.9% and maximum on 4th year at 36.5%.

Miss. Rai recommended after her study are;

- ❖ NLIC should improve its effective plan, marketing strategies, working procedures, accounting procedures and other management issues along with its financial strategies considering the national scenario.
- ❖ The company is affected directly or indirectly by the morality and the commitment of the employees of the company. The company should motivate their employees for better performance and should provide different facilities to their employees for earning their motivation.
- ❖ NLIC should provide some return to the investment of its equity shareholders, since the company is in profit.
- ❖ NLIC has to carry out the function of financial analysis with utmost sincerity from time to time in order to be in a sound financial condition as well as to be accountable to its entire shareholders.
- ❖ The current ratio fluctuated over the span of four years. This indicates that the company has less control over it. Since, the company should maintained adequate current ratio, which is 2:1, for better liquidity position. Hence, it is recommendable that the company should act seriously to overcome this problem in the near future.

Miss. Rai gave more preference to introduce NLIC and analyzed about its roles, functions, policies etc. instead of analyzing to its subject matter. She has use only accounting ratios like; liquidity ratio, Asset management ratio, leverage ratio, profitability ratio, market value ratio to present financial condition and ignores the importance of statistical tools. But, the outputs of these tools are not applicable absolutely in life insurance business because she has analyzed the financial factors of

life insurance business like as in manufacturing company. In other hand she ignored about other financial activities of life insurance companies such as; claims like- death claim, surrender, maturity, major expenses like- agent commission, medical fee, service fee to beema Samiti, reinsurance premium, actuarial fee major revenues like- premium, interest on premium etc. and to discern about life insurance businesses and compare them, definitely the briefly analysis of whole transactions applied by life insurance companies is required. And the financial performance of the company cannot be evaluated without comparing other company.

Mainali S. k. (2008) has done a research on “Inventory Management and It's Impact on Working Capital Management of Unilever Nepal Limited”. This study attempts to focus on Unilever Nepal Ltd. He was concerned with financial analysis of the company by analyzing various ratio of the period of five years. He used secondary data of balance sheet and profit and loss account of the company from 2059/060 to 2063/064. The objectives of his study are as follows.

- To identify the present inventory position of Unilever Nepal Ltd.
- To know the relationship of sales and inventories.
- To identify the problems faced by Unilever Nepal Ltd. in the management of inventory.
- To assess the inventories and their consequences on profitability of Unilever Nepal Ltd.
- To suggest for the better practice of inventory Management.

Major findings of his study were;

- Inventory management and controlled system followed by manufacturing companies are ABC analysis, perpetual inventory management system (physical checking), EOQ etc.
- There are various problems like political crisis, strikes lockout and transportation problem facing by the manufacturing companies regarding the management of inventories.

- The fluctuation in stock of RM during the study period is very high. Defective purchasing policy and poor planning of raw materials are the main responsible factors for such fluctuation. There is no fixed policy of purchasing materials.
- The correlation between inventory and net profit is 0.9373, so it becomes clear that there is positive and high degree of correlation between inventory and net profit. 'T' statistics also indicate that correlation coefficient between inventory and net profit is significant.
- EOQ is not similar during the study period. This type of fluctuation is due to variation of ordering cost and fluctuation in demand but the company has not used EOQ model to manage and control of the inventory.

Mr. Mainali has given following suggestions for the company;

- ❖ The company should define its objectives clearly with regarding to its inputs and outputs separately. Quantities and time period should be specified.
- ❖ Purchasing plan should be prepared for different types of raw materials and WIP materials with the proper co-operation and coordination among the planning, purchasing, storing, production, marketing and sales department to avoid excessive investment on inventory.
- ❖ Specific policy on inventory should be defined and comprehensive system of inventory management has to be introduced.
- ❖ Primary problem faced by UNL in production planning are unsuitable inventory and production policy, lack of coordination between sales and production. So the Co. should clarify production and inventory policy.
- ❖ UNL should attempt to use scientific inventory model .UNL should use EOQ model to determine order size, which minimize cost of organization and increase the profitability.

Gurung K. M. (2008) has done a research on “Working Capital Management of Nepal Doorsanchar Company Limited”. She was concerned with financial analysis of the company by analyzing various ratio of the period of five years. He used secondary data of balance sheet and profit and loss account of the company from 2001/2002 to 2005/2006. The objectives of his study are as follows.

- To examine and critically analyze the working capital management of Nepal Telecom.
- To examine liquidity position and profitability position of Nepal Telecom.
- To assess the size and growth of working capital, and
- To recommend viable suggestions to cope up with working capital management shortcomings in Nepal Telecom.

Major findings of her study were;

i. Structure of Working Capital

This section has dealt with the structure or composition of working capital and approximate ratio of cash, inventory and receivables of Nepal Telecom. The observation of the cash and bank to current assets ratio shows that the major portion of current assets is held by cash and bank in Nepal Telecom since the average ratio of cash and bank to current assets is calculated as 53.00%. Since this ratio is too high, it can be stated that the company is facing situations of excess cash and bank balance held idle which is unfavorable for a company. Inventory is another element of working capital which is only stores and spare parts and held a nominal part of current assets since the average inventory turnover ratio is 22.04. This indicates that there is no considerable amount tied

up in inventory in Nepal Telecom. Another important element is Account Receivables which represents sundry debtors plus interest accrued on investment. The volume of receivables is fluctuating over the study period.

ii. Efficiency of Working Capital Management

The efficiency of management of working capital is measured through the turnover ratios since the volume of sales in any business organization not only affects the size of working capital but also clearly reflects the efficiency with which assets are managed. The receivables turnover ratios are moderately fluctuating and vary from the lowest 2.34 times and the highest 3.35 times. Likewise, the cash turnover ratio has are moderately fluctuating and vary the lowest 0.51times to 0.89 times during the study period since the rate of increase in the sales volume is lower than that of cash& bank balance. In the three years, cash & bank balance are exceeding net sales by a significant

amount. Hence the result is dissatisfactory. The average net working capital turnover is 0.488 times. Since the ratio has decreased from 0.58 times to 0.36 times during the study period, we can say that the company is not utilizing its net working capital effectively. The amount of working capital is exceeding net sales every year. Hence from the analysis, it is revealed that Nepal Telecom has kept excess amount of working capital in comparison to sales which can be considered as the sign of efficient working capital management. Which assets are managed? The receivables turnover ratios are moderately fluctuating and vary from the lowest 2.34 times and the highest 3.35 times. Likewise, the cash turnover ratio has are moderately fluctuating and vary the lowest 0.51times to 0.89 times during the study period since the rate of increase in the sales volume is lower than that of cash& bank balance. In the three years, cash & bank balance are exceeding net sales by a significant amount. Hence the result is dissatisfactory. The average net working capital turnover is 0.488 times. Since the ratio has decreased from 0.58 times to 0.36 times during the study period, we can say that the company is not utilizing its net working capital effectively. The amount of working capital is exceeding net sales every year. Hence from the analysis, it is revealed that Nepal Telecom has kept excess amount of working capital in comparison to sales which can be considered as the sign of efficient working capital management.

iii. Profitability of Working Capital

Return on total assets is positive and not stable but it has highest 12.55 time to 6.88 times over the five year study period. Average return on total assets is 9.90%. The volume of net profit after tax has increased every year but the return on total assets has fluctuating each year, which signifies that the profitability is not sufficient with compared to the increment in investment in total assets. It clarifies the less effectiveness of utilization of total assets. Another ratio to measure profitability is return on net working capital. From the study, it is found that the return on working capital is continues increased except 2003/04, over the five years. The ratio varies from 13.35 to 27.35 %.From the study; it is found that Nepal Telecom has been utilizing its working effectively since the return on working capital is in increasing trend. Both NPAT and investment are increasing every year and the earning power of capital employed is increasing as well. Profitability is not sufficient with compared to the

increment in investment in total assets. It clarifies the less effectiveness of utilization of total assets. Another ratio to measure profitability is return on net working capital. From the study, it is found that the return on working capital is continues increased except 2003/04, over the five years. The ratio varies from 13.35 to 27.35 %.From the study; it is found that Nepal Telecom has been utilizing its working effectively since the return on working capital is in increasing trend. Both NPAT and investment are increasing every year and the earning power of capital employed is increasing as well.

Miss Kesh Maya has given following suggestions for the company;

1. Maintain Optimum Current Assets Variables and Current Liabilities Every Year

Study showed that besides cash and bank, other variable of current assets and current liabilities also fluctuate moderately. Optimization of this variable is therefore recommended which would maintain a sound liquidity. Nepal Telecom, being a service-oriented organization, does not need so higher liquidity position. Thus it is recommended to stabilize its current ratio near 2:1. It is better for Nepal Telecom to invest such excess amount of current assets in fixed assets to increase its capacity rather than tying up large amount in current assets.

2. Forecast Current Assets and Current Liabilities Variables with reference to change in Sales and Profit

One of the shortcomings of Nepal Telecom is that the variables of current assets and current liabilities held under different headings are rather a haphazard guesswork, without any consideration on its impact on sales and profit of the organization. For instance, the current assets turnover ratio is in decline trend since the growth of net sales every year is very low in comparison to current assets which imply very low utilization of current assets. Hence, the suggestion is to plan current assets and current liabilities variables with respect to change in sales and profit.

3. Maintain Optimum Level of Working Capital

From the analysis, it is revealed that Nepal Telecom has kept excess amount of working capital in comparison to sales since the amount of working capital is exceeding net sales every year. This cannot be considered as the sign of efficient working capital management. Hence it is recommended to Nepal Telecom to maintain optimum level of working capital.

Shrestha G. (Master Degree Thesis, Shanker Dev Campus, T .U. 2009) has carries out his study on “Working Capital Management of Nepalese Commercial Bank in Nepal (A Case Study of EBL and SCBNL)”. Her objective was to evaluate working capital of the banks and analyze their assets structure and their implications, to analyze of working capital trend position of selected Bank, to analyze the financial position of these selected banks by using different tools and techniques, to shed light on creation and mobilization of fund in EBL and SCBNL, to find out suggestions and recommendations on the basis of their applied system and financial position. She has taken five year study period and applied the secondary data.

The major findings of the Shrestha’s study are as follows;

- The total assets turnover ratio of the banks is decreasing with fluctuated. The highest total assets turnover ratio of SCBNL is 0.072 and lowest ratio is 0.067. Similarly, the highest total assets turnover ratio of EBL is 0.08 and lowest ratio is 0.06.
- The capital employed turnover ratio of EBL is fluctuating over the study period but SCBNL is slowly decreased during the study period. The highest capital employed turnover ratio of EBL is 1.75 and lowest ratio is 1.12 in the fiscal year 2062/63 and 2063/64 respectively as well as SCBNL's highest capital employed turnover ratio is 1.10 and lowest ratio is 0.94 in the fiscal year 2059/60 and 2063/64 respectively.
- The return on loans and advances ratio of the banks is fluctuating over the study period. The highest return on loans and advances ratio of EBL is 2.44 and lowest ratio is 1.92 as well as SCBNL's highest return on loans and advances ratio is 8.90 and lowest ratio is 6.59 in the fiscal year 2059/60 and 2063/64 respectively.

- The return on total deposit ratio of the banks is fluctuating over the study period. The highest return on total deposit ratio of EBL is 1.78 and lowest ratio is 1.41 in the fiscal year 2060/61 and 2059/60 respectively as well as SCBNL's highest return on total deposit ratio is 2.86 and lowest ratio is 2.54 in the fiscal year 2062/63 and 2060/61 respectively.
- The return on total assets ratio of the EBL and SCBNL is fluctuating over the study period. The highest return on total assets ratio of EBL is 1.50 and lowest ratio is 1.17 in the fiscal year 2062/63 and 2059/60 respectively as well as SCBNL's highest return on total assets ratio is 2.56 and lowest ratio is 2.27 in the fiscal year 2062/63 and 2060/61 respectively.
- The coefficient of correlation between current assets and current liabilities is almost 1, so that there is high degree of positive correlation between two variables of the selected banks. It means correlation of coefficient between current assets and current liabilities of the selected banks has perfect correlation. Correlation of coefficient (r) is greater than 6P.E. Therefore it reveals that relationship between current assets and current liabilities is significant.
- The coefficient of correlation between total deposit and net profit is almost 1, so that there is high degree of positive correlation between two variables of the selected banks. It means correlation of coefficient between net profit and total deposit of the selected banks has perfect correlation. Correlation of coefficient (r) is greater than 6P.E. Therefore it reveals that relationship between total deposit and net profit is significant.
- The coefficient of correlation between total deposit and loans & advances of the selected banks is nearly 1 so, high degree of positive correlation between these two variables. It also reveals that relationship between net profit and total deposit of the selected banks are closer to perfect correlation. Correlation of coefficient (r) is greater than 6P.E. Therefore it reveals that relationship between total deposit and loans & advances is significant.

Miss Shrestha has given following suggestions for the company;

- ❖ The banks, especially the SCBNL and EBL has to maintain adequate cash & bank balance to total deposits ratio, as prescribed by NRB, which is 5% of total deposits.

- ❖ EBL is suggested to improve its profitability position, and to improve its overall efficiency and returns to its shareholders.
- ❖ SEBNL has been suggested to improve its deposits and credits to increase its volume of banking operations.
- ❖ The banks should finance superior quality of assets for greater profits, especially for SCBNL.
- ❖ The banks should maintain positive relationship between loans and advances and deposits in coming years also, to maximize benefits.
- ❖ Since the economy of the country has become weaker since the last decade, the studied banks are advised to concentrate more on risk free securities and low risk loans.

2.5 Research gap

There is a gap between the present research and the previous researches conducted on financial analysis and their comparison in insurance industry. The previous researches were either a case study of a particular company or a comparative study of two different types business like life and non-life insurance companies, manufacturing and non-manufacturing company etc. Although there are many researches conducted in insurance field, but there is no any thesis in aspect of working capital analysis of Life Insurance Company only.

As life insurance is different type of business, it has different type of revenue and expenditure account heads too compare to other business. This study is not only concentrated on the analysis of ratios of Nepal life insurance company's financial activities, it has used the various judgment tools to know the actual position of the company and the whole life insurance industry in Nepal in the various aspects, which were not used in the previous researches. This study is concentrated in statement of the problem and objective of the study, but most of the previous studies were out of the objective of the study. For these reasons probably this might be the first attempt on this subject matter with brief overview of the all the financial activities related to life insurance business in Nepal.

CHAPTER - III

RESEARCH METHODOLOGY

3.1 Introduction

This part of the study deals with the methodology adopted for the completion of the study. Research methodology refers plan structure and strategy of investigation conceived to answer the research question. This chapter explains the methodology used in this study. Research Methodology is the process of forming new knowledge for the solution of the problem, which is not existed already.

This study aims at presenting, evaluating and findings about overall financial activities related to selected companies and compare each other's position & aspects. To accomplish this goal, the study follows the research methodology described in this chapter as such:

3.1.1 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. This research attempts to analyze the primary information (opinions of the respondents) as well as secondary data. As per the nature of the study, historical research and survey research designs are used to accumulate and analyze views and reaction of the respondents. In other hand to drag out better result of this study, various financial ratios are used as well as to analysis various aspects of this study analytical research design is used. "Research design is a plan, structure and strategy of investigation conceived so as to obtain answer to research question and to control variances." [C.R. Kothari.(1991) - quantitative Techniques to control variances, New Delhi] Therefore, a researcher cannot obtain any fact result without consulting the research design. The plan and strategy of investigation conceived to obtain answer to research question and to control variance is research design.

3.1.2 Population and Sampling

There are 25 insurance companies in insurance business sector and nine of them providing life insurance service. Only eight companies are providing life insurance service. NLIC is one of the most popular insurance companies providing life insurance service. In this study NLIC has been selected to study working capital management for five fiscal years.

Population of this study

- Nepal Life Insurance Co. Ltd. (NLIC)
- Rastriya Beema Shasthan
- American Life Insurance Co. Ltd. (ALICO)
- National Life Insurance Co. Ltd.
- Life Insurance Corporation Nepal Co. Ltd.
- Asian Life Insurance Co. Ltd.
- Gurash Life Insurance Co. Ltd.
- Surya Life Insurance Co. Ltd.
- Prime Life Insurance Co. Ltd.

Sample of this study

- Nepal Life Insurance Co. Ltd. (NLIC)

Population size = 9

Sample size = 1

Sample percentage = 11.11%

3.1.3 Nature and Sources of Data

To fulfill the objectives of the study, a definite series of analysis is introduced. The research is based upon the description of the primary and secondary data for the historical performance assessment and the future prediction of planning and upcoming policy and implementation among the insurer. Hence, the primary and secondary data are used for the analysis and drawing a valid conclusion. The major sources of data collected are listed below.

- Quarries with the concerned personnel of NLIC and Insurance Board.
- Bulletins and Annual reports of insurance board.

- Browsers and Annual reports of NLIC
- Available web site of related organization.
- Library of different colleges and from central library.
- Important information collected from Insurance News & Views, Beema Sandarva, different magazines & books, different business programs from T.V. & Radio etc.

3.1.4 Data Collection Technique

For primary data information is collected by visiting concerned organization and consulting with authorized personnel like; D.G.M., Chief Marketing Manager, Divisional Manager, Deputy Manager, Sr. Branch Manager, Finance Officer, Administrative Officer, Account Officer, R/I Officer, Supervisor, Co. Secretary etc., who were available at the visit hours. In other hand secondary data is also available by collecting Annual reports, economic bulletins and browsers, during visit these organizations. To get more reliable information, discussions were held with respondents. Discussed information was really important to analyze and interpret the data on study time. According to necessity of study telephone interviews were also held as well as visit to concerned web site. Purpose of obtain or drag out better result available, data information are rechecked and transformed them in easy way to analysis and easy to understand.

3.1.5 Data Processing Procedure

Methods of analysis are applied as possible in statistical basis. Due to poor database, the data obtain from the various sources cannot be directly used in their original form, the main problem is accounting system maintained and shown in annual report of life insurance companies are different as their own view. Further they need to be verified and simplified for the purpose of analysis. The obtained data are presented in various table, diagram and charts with supporting interpretations.

3.1.6 Tools and Techniques of Analysis

Use of appropriate tools in analysis of collected data, shows the clear revelation about the study and also shows the efficiency and effectiveness of the study. So to expose collected data in clear vision different Accounting, Financial and statistical tools are used for analysis of data in this study. For the purpose of best effort on presentation of collected data, analysis is classified into 3 types of analysis.

3.1.6.1 Financial Tools

"A widely used tool for the financial analysis is ratio analysis. It is defined as the systematic use of ratio to interpret the financial statement so that the strength and weaknesses of firm as well as its historical performance and current financial condition of can be determined." (My Khan & P. K. Jain, Financial Management, 3rd edition - Tata Mc Graw Hill Publishing Company Ltd, New Delhi 1999. P. 117)

The weakness of management and strength of it can be found through ratio analysis. So, an organization should use this tool to know about its situation and to take corrective action. In order to bargain more effectively for outside funds, the management of a firm should be interested in all aspect of financial analysis that outside supplier of capital use it is evaluating the firm. Following ratios can be analyzed to determine financial position of an organization.

3.1.6.1.1 Liquidity Ratios:

Liquidity ratios are used to measure the firm's ability to meet the short term solvency of the company. There are mainly three types of liquidity ratios.

- **Current ratio:-** current ratio is the relationship of current assets and the current liabilities. The current assets are those assets, which can be converted into cash within short period i.e. one year. Current assets includes inventories, cash in hand, cash in bank, bills receivables, account receivables, marketable securities, prepaid expenses, short term loan and advance etc. and currents liabilities includes bills payables, cash payable, cash credit, outstanding expenses, bank overdraft etc. The ratio shows that

the firm's current position to pay its current obligation. Higher ratio shows the favorable position of the firm. The standard of this ratio is taken as 2:1. Lower the ratio indicates unfavorable position of the firm. This shows the solvency position of the business is not good.

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

- **Quick Ratio/Acid-Test Ratio or Liquid Ratio:-** All the current assets are not equally liquid so quick assets does not include those current assets which are not converted in short period the example of these assets are prepaid expenses and inventories. The standard ratio is taken as 1:1. The ratio is calculated by using following formula.

$$\text{Quick ratio} = \frac{\text{Quick Assets (C. A. - Inventories \& prepaid expenses)}}{\text{Current Liabilities}}$$

- **Absolute Liquid Ratio:-** Although current assets like receivable, marketable securities etc. can be changed into cash as required; it takes a time to be changed. It means it is not absolute liquid. The absolute liquidity ratio measures the liquidity position of the firm in absolute term. Following is used to calculate absolute liquidity ratio.

$$\text{Absolute Liquid Ratio} = \frac{\text{Cash}}{\text{Current Liabilities}}$$

3.1.6.1.2 Profitability Ratio

Profit is the main objective of the firm. The company should aim at earning maximum profit by fulfilling social responsibilities. It necessary to have maximum profit, to meet the different obligations of the firm. Every investor invests his/her saving only after when he/she is confident of reasonable return. In addition, the adequate return to its shareholders depends on profitability condition of the company. In other words, profit provides money for repaying debt and providing internal funds. Therefore, it shows the overall efficiency of the business concern. Following profitability ratios have been used in the present study.

- **Return on Current Assets:** - This ratio analyzes the earning power of the current assets of the company. This ratio is calculated by dividing net profit by total current assets. i.e.

$$\text{Return on Current Assets} = \frac{\text{Net Profit}}{\text{Current assets}}$$

- **Return On Net Working Capital:-** This ratio measures the profitability of net working capital and also shows the efficiency of working capital. The ratio is obtained by dividing the net profit by net working capital. i.e.

$$\text{Return on Net Working Capital} = \frac{\text{Net Profit}}{\text{Net Working Capital}}$$

- **Return on Investment:** - Investment refers to the long terms funds supplied by the creditors and owner of the firm. It is also known as net worth. It can be computed in two ways. First, it is equals to long-term liabilities plus shareholders equity. Alternatively, it is equivalent to net working capital plus fixed assets. The higher ROI shows efficient use of long-term fund. It is calculated by dividing net profit by capital employed.

$$\text{Return on Investment} = \frac{\text{Net Profit}}{\text{Current assets}}$$

3.1.6.1.3 Turnover Ratio

The relationship between sales and assets are indicated by turnover ratios. It is also known as activity, efficiency or assets utilization ratio. This ratio shows efficiency of assets management, i.e. how efficient the assets management is? It means how efficiently and rapidly company can convert its assets into sales. The grater turnover ratio indicates higher utilization of assets. Thus, it measures the degree of effectiveness in use of resource or fund by a company. Following turnover ratios have been used in the present study.

- **Inventory Turnover Ratio:** - The inventory turnover ratio measures how quickly inventory can be converted into sales. It is the test of efficient

inventory management. It is computed by dividing the cost of goods sold by average inventory for the period. A high inventory turnover is the indicator of good inventory management. A low inventory turnover implies excessive inventory levels than warranted by production and sales or over investment on inventory or a slow moving inventory.

$$\text{Inventory Turnover Ratio} = \frac{\text{Cost of Goods Sold}}{\text{Average Inventory}} \text{ or } \frac{\text{Sales}}{\text{Inventory}}$$

- **Receivables (Debtors) Turnover Ratio:-** This ratio shows the relationship between sales and account receivables of the company. It indicates the velocity of debt collection of the company. In other words, the debtor turnover ratio is a test of the liquidity of the debtors of a company. The higher the ratio, the more efficient is the management on collecting the debtors. It indicates that within a short period, the company is collecting the cash from the debtors. A low level of ratio shows that debts are not being collected rapidly.

$$\text{Receivables (Debtors) Turnover Ratio} = \frac{\text{Sales}}{\text{Debtors}}$$

- **Current Assets Turnover Ratio:-** This ratio shows relationship between current assets and sales. It analyses how far company can efficiently utilize its current assets. The ratio shows the requirement of working capital for one rupee of sales. A low working capital turnover may reflect an inadequacy of working capital because of low turnover of inventory or receivables.

$$\text{Current Assets Turnover Ratio} = \frac{\text{Sales}}{\text{current assets}}$$

- **Cash And Bank Balance Turnover Ratio: -** It shows the effectiveness of management in case of application of cash in ordinary course of business. It measures how rapidly cash can convert into sales in a company. It is calculated by sales divided by cash and bank balance. The higher ratio

indicates cash is rapidly converted into sales. Which can be shown in the following formula,

$$\text{Cash and Bank Balance Turnover Ratio} = \frac{\text{Sales}}{\text{Cash And Bank Balance}}$$

3.1.6.2 Statistical Tools

Generally the statistical tools are used for attaining accuracy on analysis and study. The major tools of statistics like Mean, Standard Deviation, Coefficient of Variance, Coefficient of Correlation, Probable Error and different Charts are used to present effectively the analysis done.

$$\text{Mean}(\bar{X}) = \frac{\sum X}{n}$$

Mean is used for measurement of central tendency. The average measures which condense a huge mass of data into single value representing the whole data. Mean is average of data which is the typical value around which most of the data tend to cluster.

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum (X - \bar{X})^2}{N}}$$

The measurement of the scatter-ness of the mass of figures in a series about an average is known as dispersion. Standard deviation is the absolute measure of dispersion in which the drawbacks presents in other measures of dispersion are removed. Standard deviation is mean of the mean. A small standard deviation means a high degree of uniformity of the observations as well as homogeneity of a series, a large standard deviation of different ratios is calculated.

$$\text{Coefficient of Variance (C.V.)} = \frac{\sigma}{\bar{X}} \times 100$$

The coefficient of Variance is the relative measure of dispersion, comparable a cross distribution which is defined as the ratio of the standard deviation to the mean expressed in percent. It is used for comparing variability of two series or set of data with the same of different units and is expressed in percent since it is independent of units. So, two distributions can bitterly be compared with the help of coefficient of

variance for their variability. Less the C.V., more will be the uniformity; consistency etc. and more the C.V. less will be the uniformity, consistency etc.

$$\text{➤ Correlation Coefficient (r)} = \frac{N(\sum XY) - (\sum X)(\sum Y)}{\sqrt{N\sum X^2 - (\sum X)^2} \sqrt{N\sum Y^2 - (\sum Y)^2}}$$

The correlation is the statistical tool that we can use to describe the degree to which one variable is linearly related to another. The coefficient of correlation measures the degree of relationship between two sets of figures. Among the various methods of finding out coefficient of correlation, Karl Pearson's (product moment) method is applied in this study. The result of coefficient of correlation always lies between '+1' or '-1'. After getting the value of r, care should be taken to interpret; otherwise wrong conclusion may be obtained. However, the following general rules are mentioned for interpreting the value of r.

Interpretation,

- ❖ When $r = 1$, there is perfect positive correlation between two variables.
- ❖ When $r = -1$, there is perfect negative correlation between two variables.
- ❖ When $r = 0$, there is no correlation or the variables are uncorrelated.
- ❖ When 'r' lies between 0.7 to 0.999, (-0.7 to -0.999) there is high degree of positive, (or negative) correlation between two variables.
- ❖ When 'r' lies between 0.5 to 0.699 there is moderate degree of correlation between two variables.
- ❖ When 'r' lies in less than 0.5 there is low degree of correlation between two variables.

$$\text{➤ Probable Error (P.E.)} = 0.6745 \times \frac{1-r^2}{\sqrt{n}}$$

Probable Error of the correlation coefficient denoted by P.E. is the measure of testing the reliability of the calculated value of 'r'. If 'r' be the calculated value of r from a sample of n pair of observation, then P.E. is defined as above. It is used in interpretation whether calculated value of 'r' is significant or not.

Where,

r = Correlation co-efficient

n = Number of pairs of observations

P. E. is used to interpret whether the calculated value of r is significant or not.

- ❖ If $r < P.E.$, it is insignificant. So, perhaps there is no evidence of correlation.
- ❖ If $r > P.E.$, it is significant.
- ❖ If $P.E. < r < 6$, P. E. is nothing can be concluded

3.1.6.3 Claim Analysis.

Life insurance companies should refund certain amount to the life assured in future, when related person claim against to the company with different reasons according to the terms and condition of policy. The analysis belongs to the different claims intimated life insurance company presented in this Claim Analysis using different appropriate tools, they are:

➤ Death Claim to Total Premium Collection = $\frac{DeathClaim}{Total\ Premium\ Collection}$

➤ Surrender Value Payment to Total Premium Collection = $\frac{SurrenderValuePayment}{Total\ Premium\ Collection}$

CHAPTER - IV

DATA PRESENTATION AND ANALYSIS

The success or failure of enterprises largely depends upon management of working capital, a crucial aspect of financial management. Shortage of funds, irregular cash flow, blocking of funds in receivables for long periods are the general problems faced by enterprises due to the improper management of working capital. Management of proper combination of working capital is possible only after systematic analysis of its different aspects. The analysis of working capital enables management to detect trends and take corrective steps if needed.

As mentioned in the introduction chapter, the main objective of the study is to analyze the working capital management of NLIC. This chapter includes size, structure and utilization of current assets, liquidity and profitability position, relation between current assets and total assets as well as fixed assets.

4.1 Analysis of Composition of Working Capital

According to the nature of the business and attitude of management towards risk, different organizations use different types of current assets. Firms having risk-averse management maintain high liquid assets in their total working capital and vice versa. The business firm that aims to maximize return on shareholders' investment should earn sufficient returns from its operation, which depends upon the volume of sales and to increase sales level, optimum current assets are required. The effective composition of current assets has a greater impact on the whole working capital management as well as the success and failure of the organization. Excess current assets increase costs and low current assets decrease profitability.

4.2 Position of Current Assets

Business organization requires fixed as well as current assets for long-term assets i.e. durable assets, fixed assets should be invested and to run day-to-day business activities, short-term assets like cash receivables etc. should be invested. The total of these short

term assets are known as working capital. It is hard to find business organization without working capital.

Since the productive sales and cash flow are not instances a firm needs working capital (gross). The firm needs cash to purchase raw material and pay expenses as there may not be project matching between cash inflow and cash outflows. Cash may also be held to meet the future expenses. The stocks of raw material are kept in order to ensure smooth production and to protect against the risk of non availability of raw materials.

Maximizing return on shareholders investment is ultimate goal of an organization. Business organization should earn sufficient return in its operation to maximize shareholders wealth. Only successful sales activities ensure earning, a steady amount of profit. The firm has to invest enough funds in current assets for the success of the sales activities because sales do not convert into cash instantly. Therefore efficient management of current assets, an internal part of overall financial management and has the grater impact on maximization of owner's capital. So, it is necessary to have proper analysis of current assets reflects the nature of performance and operation of its management. Therefore firstly the overall current assets are analyzed.

Table - 4.1
Nepal Life Insurance Co. Ltd.
Current Assets

Particulars	FY061/062	FY062/063	FY063/064	FY064/065	FY065/066
Cash And Bank Balance	31204491	44336206	65476241	83727602	99772308
Short Term Investment	127135130	219889126	356873499	155334365	151554486
Deposits	221831	228831	249931	15620197	13607324
Short Term Loans	45656846	34197233	47645824	841213	1276425
Sundry Debtors	916012	546846	265125	1978315	38098
Miscellaneous Stock	3339	292519	206339	494186	1345213

Source: - Financial Statement of NLIC

(See in Annex - 2)

This table represents current assets position of Nepal Life Insurance Co. Ltd. NLIC'S current assets consist investment, cash and bank balance, sundry debtors and others.

This table represents the pattern of current assets of NLIC and their fluctuation year after year. As per the table, short term investment is more than others. Short term loans and cash and bank balance are other important current assets. There is no need of inventory since it is service providing organization providing insurance servicing.

4.3 Working Capital policy Analysis

NLIC, being a service provider need not tie up fund in form of inventory. It sells insurance service to the customer and the trade of service is done on cash basis. Life insurance companies can not calculate its every year profit Because of the restriction of the Beema Samiti. NLIC is also a life insurance so; it only calculates operating profit by the efficiency use of its collected premium. It has to spend on employee cost, operating and cost, administration cost, depreciation, bonus and intensive package for employer etc. It is obligation that the nature of the expenditure is permanent type and NLIC does not invest its fund in variable working capital.

Different Factors like size and nature of the business, liquidity position of the firm etc determine the working capital need in different organization differently. Different senior officials of NLIC'S finance department were queried about there working capital management during the course of the study. It was found that there is no set of policies regarding working capital management formulated and the need of working capital is not estimated with any systematic way. High investment on short term investment like securities shows no need of huge working capital on others.

4.4 Size of Working Capital

The success and failure of any organization depends upon the proper management of current assets. These assets must be maintained at a level that can adequately cope with the volume of business activities. The policy of any firm regarding the total amount of current assets, required to support he given level of sales is referred as current assets policy of that firm. The current assets policy of the NLIC has been analyzed here in term of size of the current assets in total assets and its relationship with fixed assets. The size of any enterprise should neither be higher nor low. That means the working capital adequate. High working capital means high level of liquidity but low profitability. Low working capital means high level of profitability and poor liquidity

position. Poor liquidity position can not maintain the activities of corporation. Here the level of current assets is measured by different five ratios. In order to study the size of working capital of NLIC, those five types of ratios are calculated as under.

- i. Current Assets to Total Assets
- ii. Current Assets to Fixed Assets
- iii. Current Assets to Operating Income
- iv. Net Working Capital to Current Assets
- v. Net working Capital to Operating Income

i. Percentage of Current Assets to Total Assets

This ratio can be analyzed to study the composition of working capital of the company. It expresses the gross working capital portion that is held on Total Assets. Higher percentage of current assets in total assets shows the greater liquidity position of the firm and low risk of technical insolvency and vice-versa. The table given below represents the percentage of current assets on total assets.

Table - 4.2
Percentage of Current Assets to Total Assets

Fiscal Year	Current Assets	Total Assets	Ratio (% of CA on TA)	% change
061/062	205137649	1249080027	16.42%	
062/063	299490761	1868631456	16.03%	(0.39)
063/064	470716959	2568693535	18.33%	2.3
064/065	344395156	3197295412	10.77%	(7.56)
065/066	358416025	4503401500	7.96%	(2.81)
Total	1678156550	13387101930	69.51%	(8.46)
Mean	335631310	2677420386	13.90%	(2.12)
C. V.	25.62%	39.95%	27.97%	

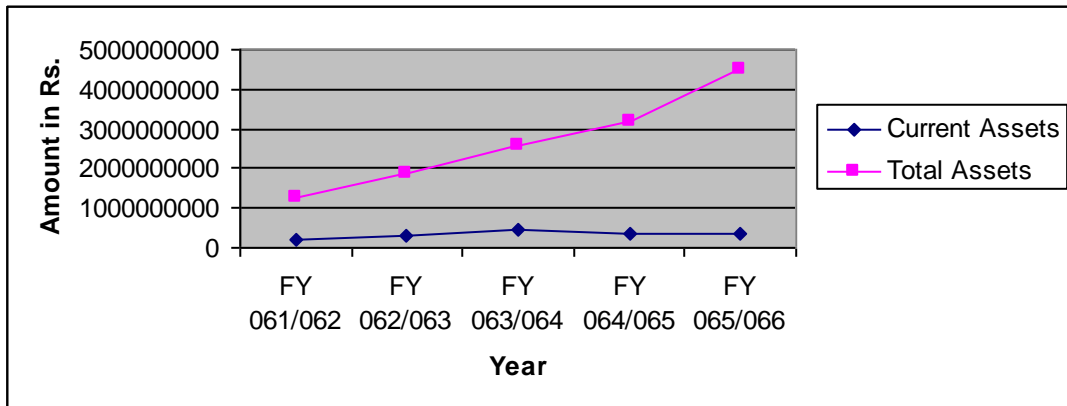
Source: - Financial Statement of NLIC

(See in Annex - 2 & 4)

This ratio indicates the proportion of current assets investment to total investment in assets of NLIC for selected period. Above table shows the proportion of current assets on total assets is increasing except on the year 064/065. In the fiscal year 063/064 the proportion has increase by 2.3% which seems very fluctuating. In an average there is

13.9% participation of current assets on total assets with 27.97% variation on it & its increasing trend is (2.12%) each year during the study period.

Figure - 4.1
Percentage of Current Assets to Total Assets



This relationship between current assets and total assets are not uniform i.e. the increase in total assets do not necessary increase the proportion of current assets on its composition. The graphic presentation shows above clarified the point. The figure shows that two lines are not parallel. In order to test the significance of the relationship between two variables (CA & TA) during the period of the study, Karl persons correlation coefficient is calculated as follows.

Karl persons correlation coefficient is an effective way to interpret the relation between two variables as it shows the effect of one variable amount on other. If the value of correlation coefficient is 1, the variables are interrelated that is increase in one variable increases other and if the correlation coefficient is -1, the variables are negatively related to each other. From above table following value has been calculated assuming current assets as X and total assets as Y.

$$r = 0.5114$$

$$PE = 0.228$$

(See in Annex - 5)

Above figure shows that correlation coefficient between Current Assets and Total Assets during the study period is positive; r is more than PE so, the value of r is significant, so that correlation is interpreted as positive correlation.

ii. Percentage of Current Assets to Fixed Assets

Every firm should invest in current assets as well as fixed to support a particular level of business. So, the firm should determine the proper proportion of current assets with fixed assets. The level of current assets can be measured by relationship between current assets to fixed assets, which can help to understand the current assets financing policy of the firm. Assuming a constant level of fixed assets, higher current assets to fixed assets ratio indicates an aggressive current assets policy, conversely lower ratio indicates a conservative current assets policy. The two goals of financial management profitability and liquidity are directly linked with the management of current assets, with a decrease to the volume of current assets, profitability increase but the liquidity declines and vice versa.

Table - 4.3
Percentage of Current Assets to Fixed Assets

Fiscal Year	Current Assets	Fixed Assets	Ratio (% of CA on FA)	% change
061/062	205137649	98992745	207.22%	
062/063	299490761	164671996	181.87%	(25.35)
063/064	470716959	183355057	256.52%	74.65
064/065	344395156	235052699	146.52%	(110)
065/066	358416025	327118749	109.57%	(36.95)
Total	1678156550	1009191246	901.70%	(97.65)
Mean	335631310	201838249	180.34%	(19.53)
C. V.	25.62%	37.73%	27.92%	

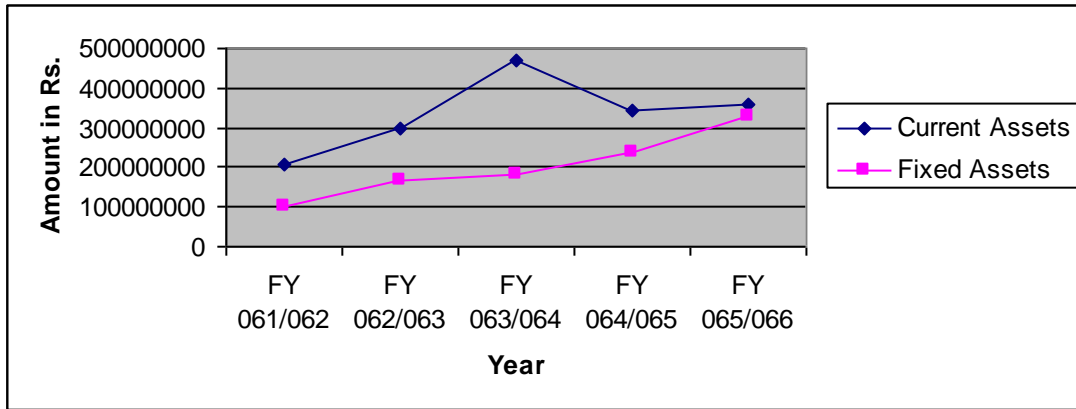
Source: - Financial Statement of NLIC

(See in Annex - 2 & 6)

Above table shows the ratio of current assets on fixed assets. Fixed assets shown in net of depreciation, which is increasing trend and current assets also increasing trend except in fiscal year 064/065. In average there is 18.034 times more current assets with comparison to fixed assets but it's decreasing trend to average (19.53%) every year. An average fixed asset is 201838249 on with 37.73% variation on it and average percentage of current assets on fixed assets is 180.34% with 27.92% variance. The following figure shows the relationship between current assets and fixed assets.

We can show the relationship between current assets and fixed assets through graphical presentation.

Figure- 4.2
Percentage of Current Assets to Fixed Assets



iii. Current Assets as Percentage of Operating Income

As life insurance business is long-term business and it is extremely different from other business organizations. The main source to generate income in life insurance companies is collected premium from its clients, which is returnable with certain bonus amount to insured in maturity policies or in death of insured. Therefore, life insurance companies cannot evaluate their profit without valuation by actuary and normally the valuation is proceeds for every three years. Here operating income includes income from investment loan and others, transferred from life insurance fund, written back provision and other incomes. Service based organization like NLIC depends upon such operating income. The source under operating income is not premium collection through different types of policy. The company should make their insurance policy as per the resource availability and people's insurance habit. Insurance policy greatly affects the financial policy i.e. the total assets required by the company and the working capital required by the company to run it as per plan. Here the coordination between them is very important. Each and every information should pass through every unit. Increase in insurance objectives certainly causes increase in all transaction for which there should adequate amount of current assets. The amount of the current assets is also affected by insurance policy of the company. If premium collection of the company is

slow, more working capital is required to meet daily requirement. On the other hand if premium collection is fast, working capital requirement is low.

Table - 4.4
Proportion of Current Assets to Operating Incomes

Fiscal Year	Current Assets	Operating Income	Ratio (% of CA on OI)	% change
061/062	205137649	11615014	1766.14%	-
062/063	299490761	51396080	582.71%	(1183.43)
063/064	470716959	17391939	2706.52%	2123.81
064/065	344395156	14747029	2335.35%	(371.17)
065/066	358416025	24168886	1482.96%	(852.39)
Total	1678156550	119318948	8873.68%	(283.18)
Mean	335631310	23863790	177.47%	(70.80)
C. V.	25.62%	60.22%	41.32%	

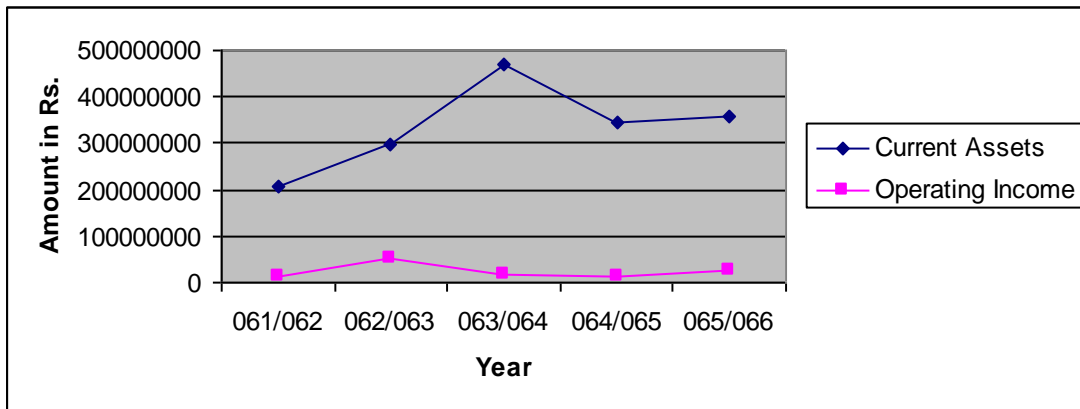
Source: - Financial Statement of NLIC

(See in Annex - 2, 3 & 7)

The table shows the relationship between operating income and working capital (current assets) of NLIC. The tabulated data shows the fluctuating relationship between them. Working capital is high in comparison to operating income. Organization has increased working capital continuously expect fiscal year 064/065 but operating income is not consistent. Operating income has increased in fiscal year 062/063 but decreased in fiscal year 063/064 by large amount. Similarly, the percentage of working capital to operating income is 1766.14% in fiscal year 061/062 but in fiscal year 062/063 it has decreased to 582.71%. In fiscal year 063/064 operating income has decreased by a large proportion but organization has increased its working capital.

Figure - 4.3

Proportion of Current Assets to Operating Incomes



The graphical presentation clarifies that the working capital is not in proportion to sales. The sale is ineffective by the volume working capital kept by the company. The curve of the sale is independent of the curve of working capital, it means two are independent.

So as to get in touch with the probable relationship between working capital and operating income of the NLIC during the period of the study, Karl Pearson's correlation coefficient (r) has been calculated assuming,

$$X = \text{Current Assets}$$

$$Y = \text{Operating income}$$

$$r = -0.056$$

$$PE = 0.30070$$

(Annex - 8)

Above calculation shows the negative correlation coefficient between the current assets and operating income during the study period. It shows that increased in current assets have decreased operating income. Although the effect has been in fiscal year 063/064.

iv) Net Working Capital as Percentage of Current Assets

Net working capital represents the excess of current assets over current liabilities. If the current liabilities are in excess than the current assets, the different is called working capital deficient is the rule of finance that the working capital on a business should be

sufficient when compared to current liabilities. If a business has low working capital or working capital deficit it must search new source of working capital, otherwise current assets should be liquidated to pay of the current liabilities. Following table presents the relationship between net working capital and current assets of NLIC.

Table - 4.5
Proportion of Net Working Capital to Current Assets

Fiscal Year	Net working Capital	Current Assets	Ratio (% of CA on FA)	% change
061/062	94868146	205137649	46.25%	
062/063	5213558	299490761	1.74%	(44.51)
063/064	18088951	470716959	3.84%	2.1
064/065	219483928	344395156	63.73%	59.89
065/066	173684253	358416025	48.46%	(15.27)
Total	673738836	1678156550	164.02%	
Mean	134747767	335631310	32.8%	
C. V.	56.67%	25.62%	76.95%	

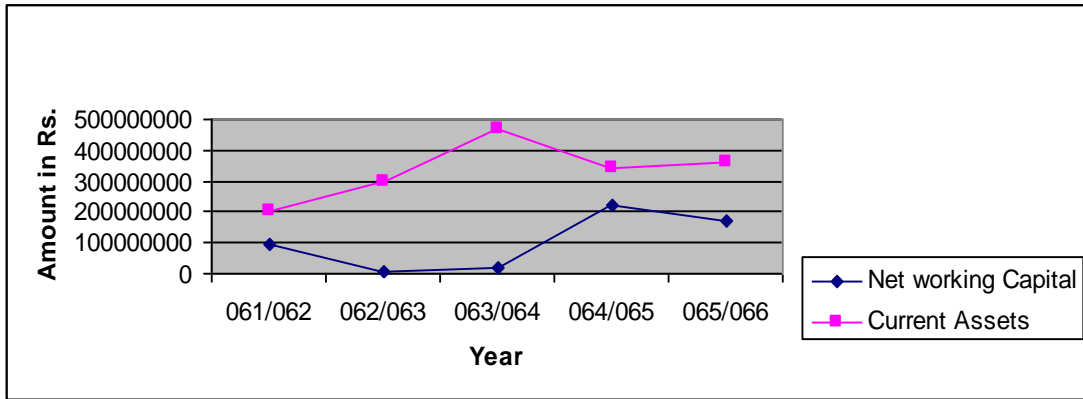
Source: - Financial Statement of NLIC

(See in Annex - 2, 9 & 10)

It is evident from the table that net working capital has increased rapidly than current assets. The tabulated data shows that both net working capital and current assets are in fluctuating trend. The average net working capital is 134747767 with 56.67% variation on it. Similarly, the average percentage of net working capital on current assets is 32.8% with 76.95% variation on it. Net working capital and current assets can be shown in following graphical presentation.

Figure- 4.4

Composition of Net Working Capital & Current Assets



v) Net Working Capital as Percentage of operating Incomes (sales)

Operating of service organization like NLIC can be increased through effective sale the policies and properly use the fund. Sales policy depends upon financial policy viz. current assets i.e. working capital policy. For example, if credit sales increases, the working capital should also increase at the same level. Therefore, it is necessary to evaluate the relationship between working capital and sales. The following table shows NWC as sale's percentage.

Table - 4.6

Proportion of Net Working Capital to Operating income

Fiscal Year	Net working Capital	Operating Income	Ratio (% of NWC on OI)	% change
061/062	94868146	11615014	816.77%	-
062/063	5213558	51396080	10.14%	(806.63)
063/064	18088951	17391939	104.01%	93.86
064/065	219483928	14747029	1488.33%	138.32
065/066	173684253	24168886	718.63%	(769.70)
Total	673738836	119318948	3137.88%	
Mean	134747767	23863790	626.58%	
C. V.	56.67%	60.22%	85.61%	

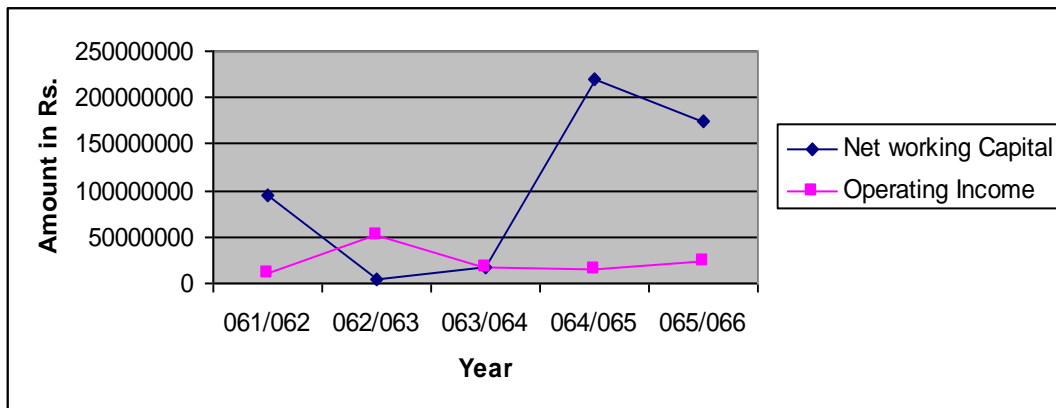
Source: - Financial Statement of NLIC

(See in Annex - 3, 7 &10)

The above table shows that net working capital and operating income both are fluctuating trend. The ratio of net working capital over sales has increased from 10.14% to 1488.33% over the five year study period. The average ratio is 626.58% with 85.61% coefficient of variance. Net working capital is less than operating capital only on fiscal year 062/063.

Figure - 4.5

Composition of Net Working Capital & Operating income



Above graphical presentation clarifies the increasing net working capital is not consistent with fluctuating operating income. Graph shows that they have no relation.

4.5 Structure of Working Capital

It is said that there is no such things as model of capital structure for all business. Capital structure needs planning for the historical ratio of the particular firm. Apart from comparable data, the running norms of debt and equity ratio are also important. In respective form of the corporate sector, capital structure is determined on the basis of that the same amount can maximize the long run value of per ordinary share. Here, the objective is to analysis the structure of the working capital of NLIC. This section deals with the structure composition of working capital & approximate ratio of investment & receivables to current assets of NLIC.

i. Proportion of receivable (sundry Debtors) to Current Assets

Now a day, Credit sales plays vital role in development and expansion of market. Credit facilities should be given to the customers to expand transaction. The nature & period of credit facilities should be determined in advance, so that the company does

not suffer from working capital deficiency. The arrangement of all these is known as receivable management. The receivable must be in optimum level. Higher degree of receivable result unnecessary held up of working capital and on the other hands low level of receivable may cause negative result in transaction. In this case, outstanding premium as added to the sundry debtors to get total receivables. Following data represent receivable, its percentage in Current Assets and percentage of receivable changes.

Table - 4.7
Proportion of Receivable to Current Assets

Fiscal Year	Receivable	Current Assets	Percentage of Receivable on CA
061/062	916012	205137649	0.447%
062/063	546846	299490761	0.183%
063/064	265125	470716959	0.056%
064/065	1978315	344395156	0.574%
065/066	38098	358416025	0.011%
Total	3744396	1678156550	1.271%
Mean	748879	335631310	0.25%
C. V.	91%	25.62%	88%

Source: - Financial Statement of NLIC (See in Annex - 2, &11)

The above table indicates that the volume of receivable is taking fluctuating trend through out the study period. It has decreased in year 062/063 in comparison to the year 061/062. It has decrease in year 063/064 and increased by a large volume in the year 064/065 and again decreased in the year 065/066. The final year volume is decreased by 95.84% compared to the first year of the study period. Average receivable is 748879 with 91% coefficient of variance. The proportion of it on current assets is decreasing expect in the year 064/065. The average ratio is 0.25% with 88% coefficient of variance.

ii. Proportion of Cash & Bank Balance to Current Assets

The basic objective of cash management is to keep the investment in cash as low as possible operating the firm's activities efficiently and effectively. Cash is necessary to pay bills, to purchase new materials and to pay debts. The company must hold cash to meet these requirements. We can see an increase in long term debt and / or fixed assets leads to increased in cash. Moreover, decreased in net working capital / or fixed assets leads to decrease in cash in addition the sum of net income and depreciation increase cash where as dividend payment decrease cash. The following table shows the proportion of cash on current assets.

Table - 4.8

Proportion of Cash and Bank Balance to Current Assets

Fiscal Year	Cash & Bank Balance	Current Assets	Percentage of Cash & Bank Balance on CA
061/062	31204491	205137649	15.21%
062/063	44336206	299490761	14.80%
063/064	65476241	470716959	13.91%
064/065	83727602	344395156	24.31%
065/066	99772308	358416025	27.84%
Total	324516848	1678156550	96.07%
Mean	64903370	335631310	19.21%
C. V.	38.53%	25.62%	29.83%

Source: - Financial Statement of NLIC

(See in Annex - 2, &12)

Above table shows the proportion of cash and bank balance on current assets of NLIC. The minor portion of current assets is held by cash. Amount of cash and bank balance is increasing every year of the study period but the ratio of the cash on current assets is decreasing in first two years than after increasing trend. The average percentage of cash and bank balance on current assets is 18.21% with 29.83% C. V. The average cash balance is 64903370 with 38.53% C. V.

iii. Proportion of Short-term Investment to Current Assets

It is necessary to keep some amount of cash balance in any business to conduct its business in the ordinary course, to meet the contingency and for investing in profit making opportunities. Cash itself is an unproductive asset. Cash, absolute liquid form cannot generate further income. It is better to invest such extra cash in marketable securities, short-term loan, etc. The excess amount of cash held by the firm to meet its variable cash requirements and further contingencies should be temporary invested in marketable securities. Which can be regarded as near money. The financial statement of NLIC shows a large amount of investment invested in marketable securities.

Table - 4.9

Proportion of Investment to Current Assets

Fiscal Year	Investments	Current Assets	Percentage of Investments on CA
061/062	172791976	205137649	84.23%
062/063	254086359	299490761	84.84%
063/064	404519323	470716959	85.94%
064/065	242574856	344395156	70.44%
065/066	243653082	358416025	67.98%
Total	1317625596	1678156550	393.42%
Mean	263525119	335631310	78.68%
C. V.	28.92%	25.62%	9.91%

Source: - Financial Statement of NLIC

(See in Annex - 2, &13)

Above table shows that investment holds a great portion of current assets in NLIC. Total investment is in increasing trend except in fiscal year 064/065. Average investment is 263525119 with 28.92% coefficient of variance and the average percentage of investment on current assets is 78.68% with 9.91% coefficient of variance for the study period. The ratio is increasing first three year and than after decreasing trend. The ratio is decreased in the final year by 19.29% compared to base year.

iv. **Proportion of Misc. Current Assets to Current Assets**

Table - 4.10

Proportion of Misc. Current Assets to Current Assets

Fiscal Year	Misc. Current Assets	Current Assets	Percentage of Misc. Current Assets on CA
061/062	225170	205137649	0.11%
062/063	521350	299490761	0.17%
063/064	456270	470716959	0.10%
064/065	16114383	344395156	4.68%
065/066	14952537	358416025	4.17%
Total	32269710	1678156550	9.23%
Mean	6453942	335631310	1.85
C. V.	115.04%	25.62%	114.05%

Source: - Financial Statement of NLIC (See in Annex - 1, &14)

Above table shows the proportion of misc. current assets on total current assets. In the table, volume of the misc. current assets and percentage of misc. current assets on total current assets are in fluctuating trend. In fiscal year 064/065 volume of the misc. current assets and percentage of misc. current assets is very high. Average percentage of misc. current assets on total current assets is 1.85% with 114.05% coefficient of variance.

The following table and pie chart show the structure of NLIC's current assets.

Table - 4.11

Structure of of Current Assets

Current Assets	Average amount	% On total Current Assets
Investment	263525119	78.52%
Receivable	748879	0.22%
Cash & Bank	64903370	19.34%
Misc. CA	6453942	1.92%
Total	335631310	100%

Source: - Financial Statement of NLIC (Table - 4.7, 4.8, 4.9 & 4.10)

Figure - 4.6
Structure of of Current Assets

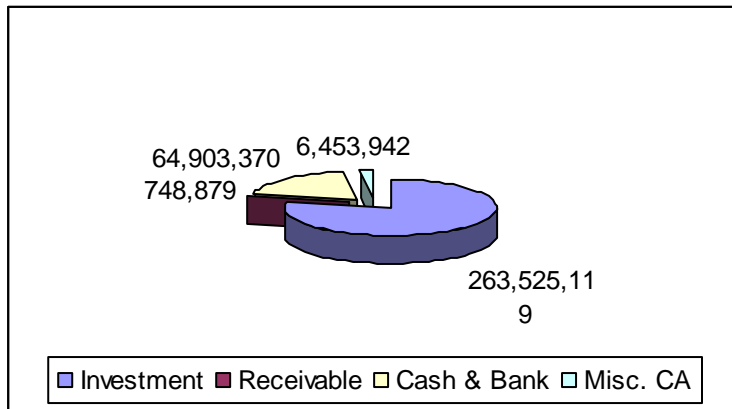


Chart shows the greatest part of the chart has been occupied by investments followed by Cash and bank balance, Misc. current assets and Receivables.

4.6 Financing of Current Assets

A company may have followed either conservative approach in the mix of short-term financing & long-term sources in financing its current assets. Generally long term financing is used to finance fixed assets and permanent current assets, but such matching is not possible because of uncertainty in future need of variable assets and expected life of assets. A firm should decide its short of financing by risk return trade off. The table given bellow helps to analysis the working capital financing policy of NLIC.

Table - 4.12
Financing mix showing risk return trade off

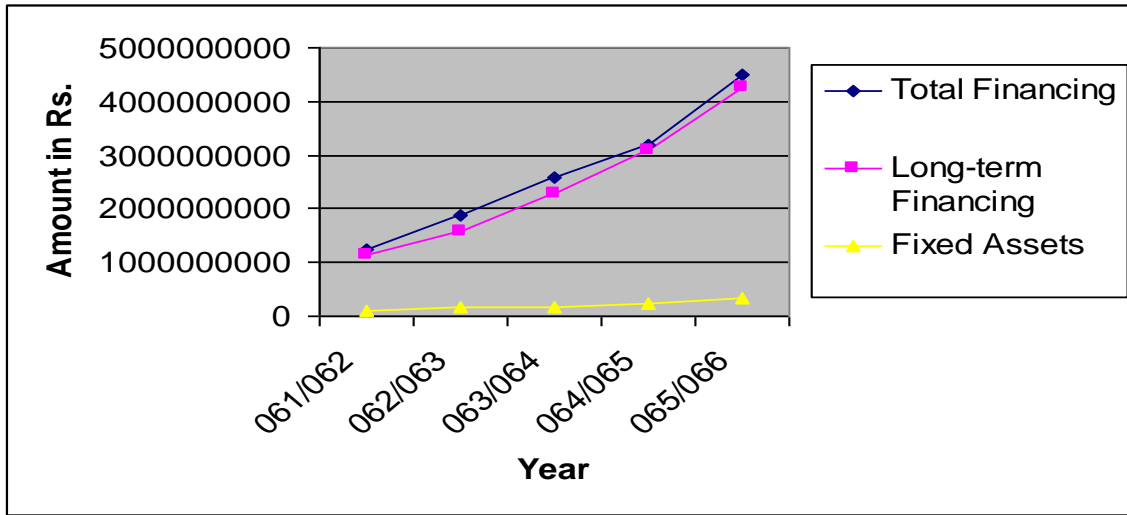
Fiscal Year	Total Financing	Long-term Financing	Fixed Assets
061/062	1249080027	1138810524	98992745
062/063	1868631456	1574354253	164671996
063/064	2568693535	2278465527	183355057
064/065	3197295412	3072384183	235052699
065/066	4503401500	4248669728	327118749

Source: - Financial Statement of NLIC

(See in Annex 1 & 15)

The above table has been shown on the following figure.

Figure - 4.7
Financing mix showing risk return trade off



The graphical presentation of long-term financing, total financing and fixed assets over the five year's study period is shown in the figure stated above, if the long-term financing curve moves very close to or fall below the fixed assets curve, the corporation is said to have followed aggressive approach, similarly if the fixed assets curve moves very close with the total financing curve, it is said to have a conservative policy. If the long-term financing curve is between total financing and fixed assets curves, the corporation is said to have followed a moderate approach.

Above figure indicates how much of current assets have been financed from long-term funds after financing the whole of fixed assets. Because of the long-term financing curve, as stated above moves between other two curves. It can be said that the corporation has followed moderate approach on financing current assets but it may not be true in all cases. If the need of working capital is low and all the working capital is permanent working capital, it cannot be considered as moderate approach and simply we can said that NLIC has followed conservative approach in financing working capital.

4.7 Growth of Working Capital

The part of the study purposes to analysis the growth of working capital in NLIC. Working capital has positive relationship with the firm's prosperity. As the firm prospers, the need for working capital in it increases, conversely as it negatively

prosper, the need for working capital decline. Generally, prosperity of the firm is reflected by its increasing sales volume, expansion of operation and so on in order to analyze the growth of working capital of NLIC. The relationship among working capital, operating income and total assets have been attempted to establish. The following table shows the growth indices of working capital of NLIC in term of current assets.

Table - 4.13

Growth trend of current assets, total assets and sales (operating income)

(Rs. in Million)

Fiscal Year	CAs	Indices	TAs	Indices	Operating Income	Indices
061/062	205.14	100	1249.08	100	11.62	100
062/063	299.49	145.99	1868.63	149.60	51.40	442.34
063/064	470.72	229.46	2568.69	205.65	17.39	149.66
064/065	344.40	167.89	3197.30	255.97	14.75	126.94
065/066	358.42	174.72	4503.40	360.54	24.17	208.00
066/067	441.08	215.01	2912.53	233.17	20.39	175.47
067/068	476.22	232.14	2990.90	239.45	19.23	165.49

Source: - Financial Statement of NLIC

(See in Annex 1 & 16)

The growth indices shows that the variable viz. Current Assets is increasing trend except fiscal year 064/065, similarly total assets also increasing trend except forecasted fiscal year 066/067. But operating income is in fluctuating trend. Operating income has larger growth rate i.e. 342.34% over the study period where total assets have 260.54% and current assets have 172.05% (the growth of these terms will be well described by trend analysis in later section of this work). The trend indices show company's current assets 441.08m & 476.22m in fiscal year 066/067 & 067/068 respectively with the indices 215.01 & 232.14. Similarly, total assets for 066/067 & 067/068 are 2912.53m & 2990.90m with indices of 233.17 & 239.5 and operating income is 20.39m & 19.23m in the fiscal year 066/067 & 067/068 with the indices 175.47 & 165.49.

Correlation Analysis

The impact of the growth of working capital has been measured by computing the simple correlation coefficient, coefficient of determinants, probable error in correlation between current assets and total assets & current assets on operating income. The following table exhibits the correlation of determination and the results of PE. Current assets are regarded as dependent variable and total assets and operating income as independent variable.

Equation	Correlation coefficient	Coefficient of determinant	PE	Result
Current Assets on Total assets	0.5114	0.2615	0.2228	Perfect Correlation
Current Assets on Operating Income	-0.056	0.0031	0.3007	Negative Correlation

(See in Annex 5 & 8)

Above table shows that the current assets and total assets are positively correlated with each other. Correlation coefficient (r) is 0.5114 which is greater than probable error (PE) i.e. $0.5114 > 0.2228$ so, it is significant. Coefficient of determinants indicates that 26.15% variation in current assets is due to change in total assets. But current assets are significantly negative correlated with operating income where correlation coefficient is -0.056 with 0.3007 PE. Correlation coefficient of 0.0031 denoted that the total of 3.1% variable of current assets is explained by the change in net sales. This concludes that the volume of current assets is positively correlated with total assets and negatively correlated with operating income.

4.8 Ratio Analysis

Ratio analysis is a well known technique in financial management. It is widely used to assess the financial performance of any business unit. Relation between different items of working capital is analyzed in present study in order to assess the performance of working capital management of NLIC. For this purpose efficiency, profitability and liquidity of working capital in NLIC are assessed by the help of different ratios as mentioned below.

4.8.1 Efficiency of working capital management

Funds are invested on various assets in a business to make sales and earn profit. The efficiency with which assets are managed directly affects the volume of sales. High proportion of current assets indicates corporation's high liquidity position but they may not achieve the desired profitability. Actively ratios measure the efficiency or effectiveness with which a firm manages its ratio or assets. These ratios are called the turnover ratios. Hence turnover ratios are used to measure the efficiency of working capital in NLIC. The ratios studied under this heading are;

- i. Receivable turnover
- ii. Cash turnover
- iii. Current Assets turnover
- iv. Net working capital turnover

i) Receivable Turnover Ratio

Receivable turnover ratio indicates the speed with which receivables are being converted in to sales (in this case operating income has been considered as sales). The table below shows the sales to receivable ratio. This ratio helps to analyze the capacity of NLIC management in utilization of fund in current assets.

Table - 4.14

Receivable turnover and average collection period

Fiscal Year	Sales (operating income)	Receivables	Turnover (sales/receivables) (times)	Day in a year	ACP
061/062	11615014	916012	12.28	365	28.79
062/063	51396080	546846	93.99	365	3.88
063/064	17391939	265125	65.60	365	5.56
064/065	14747029	1978315	7.45	365	48.96
065/066	24168886	38098	634.38	365	0.58
Total	119318948	3744396	813.7		87.77
Mean	23863790	748879	162.74		17.55
CV	60.22%	91%	252.43%		106.04%

Source: - Financial Statement of NLIC

(See in Annex - 17)

Above table shows the receivable turnover of NLIC during five years study period. Because of fluctuating sales and receivables, turnover is in fluctuating trend. Average turnover is 162.74m with 252.43% coefficient of variation. This indicates that the receivable turnover is very fluctuating in huge amount.

Average collection period also shown in the above table. The ACP measured the quality of debtors of the corporation. Its degree of liquidity plays a vital role in overall liquidity position of the firm. The measure of actual liquidity position of the firm remains incomplete without the analysis of liquidity of receivables. So, ACP has been used to measure efficiency of receivable in term of receivable turnover. The table shows the average collection period increasing in middle two year, decreased in second year and the last year ACP is very low. It indicates that the ACP is also in fluctuating trend. The average of ACP is 17.55 days with 106.04% coefficient of variation.

ii) Cash & Bank Balance Turnover Ratio

Net sales to cash and bank balance ratio is calculated and presented in the table below. The relationship between net sale (operating income) and cash and bank balance reflects the efficiency of management in utilization of absolute liquid assets. The following table shows ratio of sales to cash.

Table - 4.15
Cash and Bank Balance turnover ratio

Fiscal Year	Sales (operating income)	Cash & Bank Balance	Turnover (sales/Cash & Bank Balance) (times)
061/062	11615014	31204491	0.37
062/063	51396080	44336206	1.15
063/064	17391939	65476241	0.27
064/065	14747029	83727602	0.18
065/066	24168886	99772308	0.24
Total	119318948	324516848	2.21
Mean	23863790	64903370	0.44
CV	60.22%	38.53%	82.82%

Source: - Financial Statement of NLIC

(See in Annex - 2 & 3)

The above table shows that cash is increasing every year. Fluctuation can be seen in cash and bank balance turnover. In fiscal year 062/063 cash turnover is 1.15 times but in 063/064 cash turnover is 0.27 times. It is because of decrease in sale and increase in cash and bank balance. Average turnover during five years study period is 0.44 times and coefficient of variation shows greater variations in turnover i.e. 82.82%.

iii) Current Assets Turnover Ratio

Now the relationship between sales (operating income) and current assets is analyzed by calculating current assets turnover ratio. This turnover ratio indicates the management efficiency in overall management of current assets; the ratio is calculated by dividing sales by current assets.

Table - 4.16
Current Assets turnover ratio

Fiscal Year	Sales (operating income)	Current Assets	Turnover (sales/Current Assets) (times)
061/062	11615014	205137649	0.057
062/063	51396080	299490761	0.172
063/064	17391939	470716959	0.037
064/065	14747029	344395156	0.043
065/066	24168886	358416025	0.067
Total	119318948	1678156550	0.376
Mean	23863790	335631310	0.075
CV	60.22%	25.62%	66.67%

Source: - Financial Statement of NLIC

(See in Annex - 2 & 3)

The above table shows the relationship between and investment in current assets of NLIC. The volume of sales is less than the current assets and its turnover is in fluctuating trend of the study period. Current assets turnover ratio declining from 0.037 times in fiscal year 063/064 to 0.172 times in 062/063. Average current assets turnover ratio is 0.075 times with 66.67% Coefficient of variation. This implies very low utilization of current assets.

vi) Net Working Capital Turnover Ratio

The sales to net working capital ratio helps to analyze the efficiency of working capital management. This ratio indicates the velocity of the utilization of working capital. This indicates the number of the times the working capital in the course of an economic year. This ratio also measures the efficiency with which the working capital is being used. These ratios are calculated and presented in the following table.

Table - 4.17
Net Working Capital turnover ratio

F/Y	Sales (operating income)	Net working Capital (NWC)	Turnover (sales/NWC) (times)
061/062	11615014	94868146	0.122
062/063	51396080	5213558	9.858
063/064	17391939	18088951	0.961
064/065	14747029	219483928	0.067
065/066	24168886	173684253	0.139
Total	119318948	673738836	11.147
Mean	23863790	134747767	2.23
CV	60.22%	56.67%	171.75%

Source: - Financial Statement of NLIC (See in Annex - 2 & 3)

The above table shows the fluctuating trend of sales and net working capital. So, the trend of net working capital turnover is also fluctuating. Because of low level of net working capital in fiscal year 062/063 the net working capital turnover is very high as compared to the other fiscal year during study period. Because of this reason coefficient of variation shows great variations in turnover i.e. 171.75%. Net working capital turnover has decreased from 9.858 times in 062/063 to 0.067 times in 064/065. And the average turnover is 2.23 times.

This observation clearly shows the very low degree of sales volume in comparison to current assets, cash and balance and net working capital.

4.8.2 Profitability Ratio

Profit is the difference between revenues and expenses over a period of time. A company should earn profit to survive and grow over a long period of time, and it will have no future if it fails to make sufficient profit. Therefore, the financial manager should continuously evaluate the efficiency of its company in terms of profit. The profitability ratios are calculated to measure the operating efficiency of a company. Besides management of the company, creditors and owners are also interested in the profitability of the firm. So, profit is the main goal of any organization and any one should be conscious to take any decision, which affects the income of organization. The main theme of the analysis regard to profit is maximizing revenue and minimizes expenditure of the firm.

As life insurance business is long-term business and it is extremely different from other business organizations. The main source to generate income in life insurance companies is collected premium from its clients, which is returnable with certain bonus amount to insured in maturity policies or in death of insured. Therefore, life insurance companies cannot evaluate their profit without valuation by actuary and normally the valuation is proceeds for every three years. Profitability ratios are calculated to measure the operating efficiency of the company in terms of profit. Profit is the ultimate goal of any business firm and a means to measure the efficiency of that firm. Here a relationship is established between operating profit and working capital. For this purpose following profitability ratios are calculated.

- i. Return on current assets
- ii. Return on net working capital
- iii. Return on Capital employed

i) Return on Current Assets

This ratio helps to analyze the earning power of the current assets of the company. The ratio is calculated by dividing net profit by total current assets. The table presented below shows the return on current assets of NLIC during the study period.

Table - 4.18
Return on Current Assets

Fiscal Year	Net Profit	Current Assets	Return on CA = $\frac{Netprofit \times 100}{CurrentAssets}$ (%)
061/062	10453514	205137649	5.1%
062/063	6709986	299490761	2.24%
063/064	7609985	470716959	1.62%
064/065	10900937	344395156	3.17%
065/066	16432266	358416025	4.58%
Total	52106688	1678156550	16.71%
Mean	10421338	335631310	3.34%
CV	32.63%	25.62%	52.89%

Source: - Financial Statement of NLIC

(See in Annex - 2 & 3)

The above table shows the return on current assets of NLIC during the study period. Return on current assets is positive and fluctuating trend. It is because of fluctuating but not by large amount of net profit and increasing current assets. The highest profitability is 5.1% in fiscal year 061/062 and lowest is 1.62 in fiscal year 063/064. Average return on current assets is 3.34% with 52.89% coefficient of variation. Average net profit is 10421338 with 32.63% coefficient of variation. The net profit is also fluctuating trend. It has decreased in fiscal year 062/063 but increased than after. The rapid growth in current assets and regular slack in ratio of net profit clarifies the less effectiveness of utilization of current assets.

ii) Return on Net Working Capital

Return on net working capital measured the profitability and also shows the efficiency of working capital. It shows now NLIC has used its available resources. The ratio is obtain by dividing the net profit by net working capital

Table - 4.19

Return on Net Working Capital

Fiscal Year	Net Profit	Net working Capital (NWC)	Return on NWC = $\frac{Netprofit \times 100}{NWC}$ (%)
061/062	10453514	94868146	11.02%
062/063	6709986	5213558	128.7%
063/064	7609985	18088951	42.07%
064/065	10900937	219483928	5.00%
065/066	16432266	173684253	9.46%
Total	52106688	673738836	196.25%
Mean	10421338	134747767	39.25%
CV	32.63%	56.67%	118.75%

Source: - Financial Statement of NLIC

(See in Annex - 2 & 3)

Above table shows the fluctuating trend of net working capital as well as return of net working capital of NLIC. Return of net working capital is very high in fiscal year 062/063 because of low volume of net working capital in this fiscal year. Because of this reason the coefficient of variation of net working capital is very high i.e. 118.78% but the average return on net working capital is only 39.25%. Average net working capital is 134747767 with 56.67% coefficient of variation.

ii) Return on Capital Employed

Return on Capital Employed reveals that how effectively the organization can utilize its fund to generate utmost income and which level of success achieved by the organization. The calculation is made by dividing Gross Profit by Capital Employed. Generally it is expressed in percentage.

$$\text{Return on Capital Employed} = \frac{\text{Net Profit}}{\text{Capital Employed}}$$

Where,

$$\text{Capital Employed} = \text{Total Liabilities} - \text{Current Liabilities}$$

Table - 4.20

Return on Capital Employed

Fiscal Year	Net Profit	Capital Employed (CE)	Return on CE = $\frac{Netprofit \times 100}{CE}$
061/062	10453514	1238810524	0.92
062/063	6709986	1574354253	0.43
063/064	7609985	2278465527	0.33
064/065	10900937	3072384184	0.35
065/066	16432266	4318669725	0.38
Total	52106688	12482684216	2.41
Mean	10421338	2496536843	0.48
CV	32.63%	44.38%	45.83%

Source: - Financial Statement of NLIC

(See in Annex - 18&3)

Above table shows that return on capital employed is in fluctuating trend. Average return is 0.48% with 45.83% coefficient of variation. Where highest return is 0.92% on fiscal year 061/062 and lowest return is 0.33% on fiscal year 063/064. Capital employed is in increasing trend due to increasing trend of total liabilities. But the earning power of capital employed is decreasing first two fiscal years and then after increasing. Average capital employed is 2496536843 with coefficient of variation is 44.38% on it.

4.8.3 Liquidity Management Ratio

Liquidity refers to the ability of a concern to meet its current obligations when they become due. The short term obligations are met by realizing amount from current assets. The current assets should be either in liquid form or in near liquid form. Current assets should be convertible into cash for paying obligations of short term nature. The sufficiency and insufficiency of current assets should be assessed by comparing them with short term liabilities. If current assets can pay current liabilities then liquidity position will be satisfactory and vice versa. Due to the above reason, it is necessary to analyze the liquidity position of NLIC. The following ratios have been calculated to evaluate the short term financial solvency position of NLIC.

- i. Current ratio

- ii. Quick ratio
- iii. Absolute liquid ratio

i) Current ratio

Current ratio measure the short term solvency of the firm in gross term. This ratio is the crude measurement of liquidity position of a firm, in this study also this ratio has been used to measure the liquidity position of NLIC.

This ratio is calculated by dividing current assets by current liabilities. Current assets are those assets, which can be converted into cash within short period of time, normally not exceeding one year. Current assets of the NLIC include cash and bank balance, sundry debtors, short term investment & misc. current assets. Similarly, current liabilities are those obligation which are payable within a short period, normally not exceeding one year. Current liabilities include estimated liabilities payable for claim intimated, service fee payable for beema samiti, agent commission payable, short term loan (secured) and other current liabilities.

Table - 4.21

Calculation of current ratio

Fiscal Year	Current Assets	Current liabilities	Current Ratio= $\left[\frac{CA}{CL} \right]$
061/062	205137649	110269503	1.86:1
062/063	299490761	294277203	1.02:1
063/064	470716959	290228008	1.62:1
064/065	344395156	124911228	2.76:1
065/066	358416025	184731772	1.94:1
Total	1678156550	1004417714	9.20
Mean	335631310	200883543	1.84:1
CV	25.62%	39.17%	30.53%

Source: - Financial Statement of NLIC (See in Annex - 2 & 3)

Above table shows the liquidity position of NLIC. Current ratio varies from 1.02:1 to 2.94:1 times throughout study period. Average ratio is 1.84:1 with 30.53% variation on it which proves good management of the firm for liquidity. Current assets have increased continuously except 064/065 but current liability is in fluctuating trend. Average current liability amount is 200883543 with 39.17% variation. The ratio shows

the ability of the corporation to meet its short term financing obligations. Generally current ratio is said well if it is 2:1. During the study period, the corporation seems to be technique able to meet it short term obligation except fiscal year 062/063.

ii) Quick ratio

Generally current ratio measures the short term solvency in gross term. Generally, it includes less liquid assets i.e. inventory. Thus, it does not measure the actual liquidity position of the firm. So, quick ratio is used to measure the net liquidity position of the firm. Thus, inventory and prepaid expenses are excluded from current assets to measure net liquidity position. NLIC is a service providing business; it has service business in absolute, so there is no matter of being inventory. So, the current ratio of NLIC is its quick ratio also.

iii) Absolute liquid ratio

Absolute liquid ratio measures the capacity of a firm to pay its short term obligations in absolute liquid assets of the firm i.e. cash. Liquid asset includes the account receivable, which is less liquid form of assets. It can not be used to pay the short term obligation easily as cash. Therefore absolute liquid ratio is calculated here to find out the short term solvency of NLIC in terms of cash. This is finding out by dividing cash and bank balance by current liabilities.

Table - 4.22

Calculation of absolute liquid ratio

Fiscal Year	Cash & Bank Balance	Current liabilities	Ratio= $\left[\frac{\text{Cash \& Bank Balance}}{CL} \right]$
061/062	31204491	110269503	0.28:1
062/063	44336206	294277203	0.15:1
063/064	65476241	290228008	0.23:1
064/065	83727602	124911228	0.67:1
065/066	99772308	184731772	0.54:1
Total	324516848	1004417714	1.87
Mean	64903370	200883543	0.37:1
CV	38.53%	39.17%	54.05%

Source: - Financial Statement of NLIC

(See in Annex - 2 & 3)

Above table shows the absolute ratio of NLIC. This ratio is in fluctuating trend during the study period. It varies from 0.15:1 to 0.67:1. The average absolute liquid ratio is 0.37:1 with 54.05% variation.

Relationship between liquidity and profitability

The management of working capital is required to fulfill two aims viz. profitability and solvency. Solvency refers to its capacity to pay its maturing obligations promptly. For that, the firm should maintain its liquidity by holding sufficient amount of current assets. If exact estimation of working capital is possible, any firm invest just enough on it. A large investment in current assets under certainly means a low rate of return on investment of the firm. Excess investment on current assets reduces return. So a firm must decide about approximate level of current assets to be carried. So, the liquidity and profitability should have direct relationship. The table given below tries to establish a relationship between two variables. Liquidity refers to the current ratio and profitability refers to the return on investment.

Table - 4.23

Liquidity & Profitability Table

Fiscal Year	Liquidity (% of CA on CL)	Profitability (% of net profit on return on Capital Employed)
061/062	186%	0.92%
062/063	102%	0.43%
063/064	162%	0.33%
064/065	276%	0.35%
065/066	194%	0.38%

Source: - Financial Statement of NLIC

(Table - 20&21)

Working capital management, both in respect of sources and uses for a balanced view of conflicting attributes of profitability and liquidity. The trade off between profitability and liquidity is the most challenging area of working capital management. The relation between liquidity and profitability can be accessed through correlation coefficient.

X = Current Ratio (Liquidity)

Y = Return on Capital Employed

Calculated Values are,

Correlation Coefficient (r) = -0.046

Coefficient of Determinant (r^2) = 0.0022

Probable Error = 0.301

(See in Annex - 19)

The above calculation shows the correlation between liquidity and profitability in NLIC. The correlation coefficient is just -0.046 where the P.E. is 0.301. In other word there is negative correlation between liquidity and profitability of NLIC. It means increase in liquidity decrease the profitability of NLIC.

4.9 Trend Analysis

The financial statement may be analyzed computing trends of series of information. This method determines the action upwards or downwards and involves the computation of the percentage relationship that each statement item has been extracted from the same item in base year. The information for a number of years is taken up and one year, generally the first year is taken as base year.

The trend percentage analysis interprets that either increase or decrease in trend percentage may give misleading results. This section expresses the trend of same related items, which have effect in working capital. The following table expresses some significant trend ratios and regression line.

Table - 4.24

Trend analysis of working capital, its components & operating income

(Rs. in Million)

Fiscal Year	Current Assets	Indices	Current Liabilities	Indices	Cash & Bank Balance	Indices	Receivables	Indices
061/62	205.14	100	110.27	100	31.20	100	0.916	100
062/63	299.49	145.99	294.28	266.87	44.34	142.12	0.547	59.72
063/64	470.72	229.46	290.23	263.20	65.48	209.87	0.265	28.93
064/65	344.40	167.89	124.91	113.28	83.73	268.37	1.978	215.93
065/66	358.42	174.72	184.73	167.53	99.77	319.78	0.038	4.15
066/67	441.08	215.01	194.88	176.73	117.85	377.72	0.65	70.96
067/68	476.22	232.14	192.88	174.92	135.50	434.29	0.62	67.69

Total Assets	Indices	Operating Income	Indices	NWC	Indices
1249.08	100	11.62	100	94.87	100
1868.63	149.60	51.40	442.34	5.21	5.49
2568.69	205.65	17.39	149.66	180.49	190.25
3197.30	255.97	14.75	126.94	219.8	231.69
4503.40	360.54	24.17	208.00	173.68	183.07
2912.53	233.17	20.39	175.47	246.32	259.64
2990.90	239.45	19.23	165.49	283.51	298.84

Source: - Financial Statement of NLIC

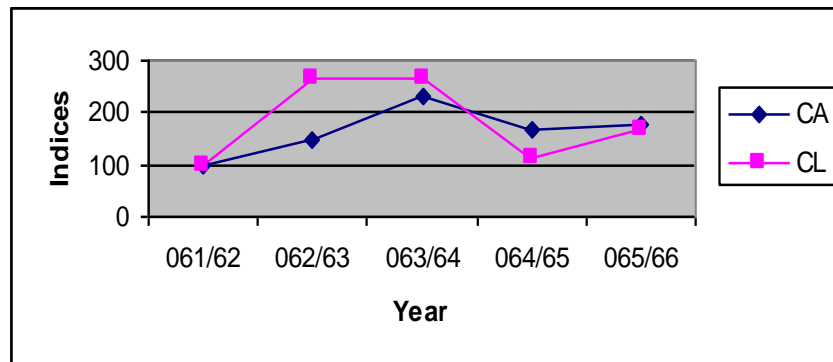
(See in Annex 2, 3 & 16)

These indices have been plotted in the following figure and introverted.

i) **Trends indices of Current Assets & Current Liabilities**

Figure - 4.8

Trend indices of Current Assets & Current Liabilities

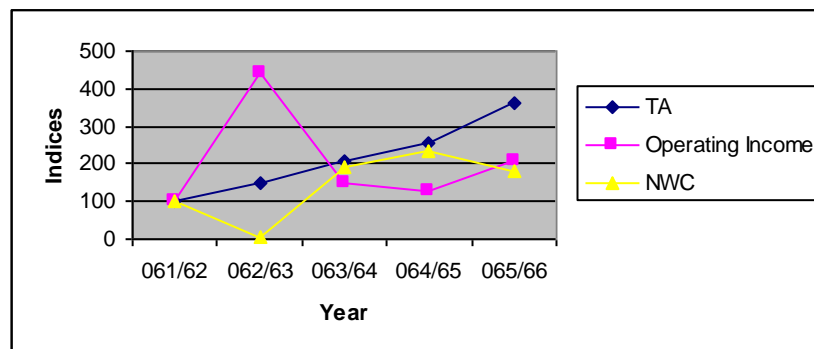


Above graph shows the trend of current assets and current liabilities over the five year study period of NLIC. The growth trend of both current assets and current liabilities are fluctuating. Current assets increases to 145.99% in fiscal year 062/063 which is very low increase and then 229.46%, 167.89% and 174.72% respectively in fiscal year 063/064, 064/065 & 065/066 from the base year 061/062 likewise, current liabilities increases to 266.87%, 263.20%, 113.28% & 167.53% respectively for the study period from the base year 061/062. According to the trend, forecasted current assets & current liabilities for the year 066/067 & 067/068 are 441.08m & 476.22m and 194.88m & 192.88m respectively showing the indices of 215.01 & 232.14 and 176.73 & 174.92 respectively.

ii) **Trends indices of Total Assets, Operating income & Net working Capital**

Figure - 4.9

Trend indices of TA, Operating income & NWC

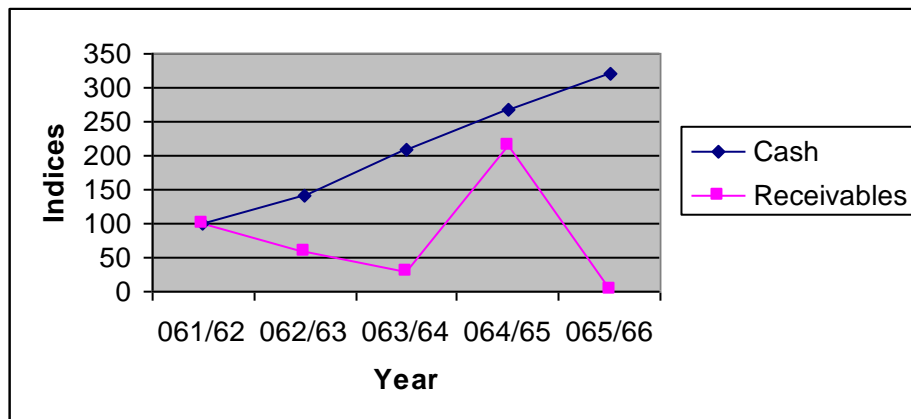


Above figure shows the growth indices of total assets, operating income and Net working capital of the NLIC over the five year study period. Total assets indices shows the increasing trend but operating income and net working capital are in fluctuating trend. The indices of total assets are 149.6, 205.65, 255.97 & 360.54 respectively in the fiscal year 062/063, 063/064, 064/065 & 065/066 taking 061/062 as base year. Similarly, operating income and net working capital indices are 442.34, 149.66, 126.94 & 208.00 and 5.49, 190.25, 231.69 & 183.07 respectively for the study period taking 061/062 as base year. Trend shows that total assets, operating income & net working capital are 2912.90m, 20.29m & 246.32m respectively for fiscal year 066/067 and 2990.90m, 19.23m & 283.51m respectively for the fiscal year 067/068.

ii) **Trends indices of Cash & Bank Balance and Receivables**

Figure - 4.10

Trend indices of Cash & Receivables



Above figure shows indices of cash and receivable over the observed period. Receivable has lower growth rate than that of cash and bank balance. The volume of the cash and bank balance is increasing every year. So, the growth rate of the cash and bank balance is increasing trend. But the receivable growth rate and volume are decreasing trend except fiscal year 064/065. Cash and bank balance indices are 142.12, 209.87, 268.37 & 319.78 respectively for the study period taking 061/062 as base year and receivable indices are 59.72, 28.93, 215.93 & 4.15 respectively. Trend shows the forecasted cash and bank balance for 066/067 & 067/068 are 117.85m & 135.50m respectively with 377.72 & 434.29 indices. Similarly, receivable is 0.65m & 0.62m with 70.96 & 67.69 indices.

4.10 Sectarian Management of Current Assets

This Section deals with the study of management of different separate items of current assets, viz. cash, receivable and investment. Investment companies of government securities, other securities and other types of short term loan and investment. Investment on securities holds the maximum percentage of the investment. Investment plays the most important in the current assets in the firm. It occupied in average 78.52% of total current assets of the firm over the study period. The main concentration is just in the management of cash and receivable.

4.10.1 Management of Receivables

The account receivable occupied important position amount current assets of the corporation. Receivable occupied only 0.22% of total current assets of the firm over the five year study period. Account receivable policy of an organization largely affects working capital requirement of that organization. If an organization gets more credits on purchase & payment period is also more, than naturally working capital requirement will be less where as if an organization sells goods on credit and the collection period is also high, then they may need more working capital since the money is blocked with debtor in case they buy the raw material on credit & sell on cash, they may need very less working capital when as if they buy raw materials in cash and sells the goods on credit, then they need more working capital. Therefore the credit policy adopted by an organization also affects or determines the working capital requirements. NLIC is a service oriented organization so it has less receivable as compared as manufacturing organization and if it can extend its payable, it may need very less working capital.

Size and growth of receivable:

The receivable balance can be measured in different ways. It can be related to sales either as percentage of sale or turnover of sales or trend report of daily number of sales represented by the total account receivable balance. Turnover period as well as average collection period is in fluctuating trends. Turnover ratio fluctuated from 7.45 times in fourth year to 634.38 times in last year. Similarly, Average collection period also

fluctuated from 0.58 day in last year to 48.96 days in fourth year of the study period. Average turnover is 162.74% with 17.55 days average collection period.

An increase and decrease in account receivable result from growth in sales of premium. If the premium is collected in time, it checks the growth of receivable. But if liberal credit terms are offered, the receivable grow faster than sales. However, any such disproportionate growth of receivable may result in loss rather than gain from incremental sales due to inferior quality of debtors granted credit.

Trend indices of the sales (operating income) and receivables

Year	061/062	062/063	063/064	064/065	065/066
Receivable	100	59.72	28.93	215.93	4.15
Operating income	100	442.34	149.66	126.94	208.00
Different	0	-382.62	120.73	88.99	-203.85

(Table- 24)

Above table shows the decreasing trend of receivable indices except in fiscal year 064/065. It indicates that the firm offered strict credit policy and good monitors the receivable. The higher growth in sales in this organization, as compared to the growth rate of receivable.

Component of Account receivable

After considering the volume and position of receivable, it is now purposed to examine the composition of receivables. Account receivable of NLIC consists of only sundry debtors. There are no outstanding premium and other types of receivables.

Credit Policy

It is observed that there is neither long-term nor annual planning nor control system of account receivable. NLIC doesn't have its separate credit department to monitor its receivable. There are no clear rule and regulation to take any action against the defaults. Generally, insured amount is not paid if premium are not paid. Besides no body is made

accountable for loss of bad debts and there is no strong legal provision to receive the amount. The analysis shows the need of improved management of account receivable.

4.10.2 Management of Cash

It was discussed in earlier section that the cash holds a significant portion of current assets in NLIC on average cash cover 19.34% of total current assets. Cash turnover ratio is 0.44 times on average. It indicates that a significant portion of current assets are absolute liquid assets.

There is no systematic long/short-term cash forecasting and budgeting techniques used for managing cash in NLIC.

Source of cash are insurance premium from different life policies, dividend & interest received and others. Similarly, its expenses are expenses of management, provision for bonus, depreciation provision other expenses.

4.11 Claim Analysis

Life insurance companies should refund certain amount to the life assured in future according to the terms and condition of policy. Because, life insurance company collects premium amount from its insured persons on behalf of legal contract to compensate against particular risk of the insured and promises to pay to him or his nominee a certain sum of money on a specified contingency or return back sum assured with bonus to insured in maturity, paid-up value with bonus if surrendered and survival benefit in certain period according the term and condition of policy. Generally life insurances settled four types of claims; Death, Maturity, Surrender and Survival Benefit (on money back policy).

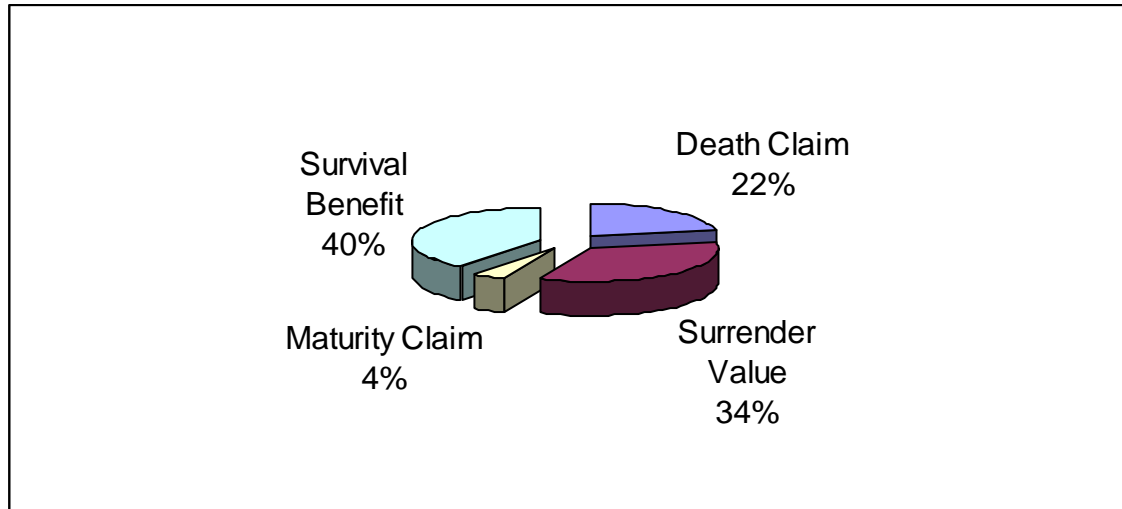
Table - 4.25
Total Claim Statement of NLIC

Particulars / Fiscal Year	2061/062	2062/063	2063/064	2064/065	2065/066	Total
Death Claim Paid	7,852,148	9,030,961	13,154,249	13,261,644	20,990,254	64,289,256
Death Claim Payable	2,607,924	5,871,516	4,058,479	5,961,146	4,749,626	23,248,691
Payable of Previous Year	(818,055)	(2,607,924)	(5,871,516)	(4,058,479)	(5,961,146)	(19,317,120)
Gross Death Claim	9,642,017	12,294,553	11,341,212	15,164,311	19,778,734	68,220,827
Recover from Reinsurance	(1,652,066)	(188,967)	(1,051,391)	-	(188,967)	(3,081,391)
Net Death Claim	7,989,951	12,105,586	10,289,821	-	19,589,767	49,975,125
Maturity Claim Paid	-	651,750	1,143,525	4,887,013	5,714,397	12,396,685
Maturity Claim Payable	-	29,625	2,695,875	753,354	712,700	4,191,554
Payable of Previous Year	-	-	(29,625)	(2,695,875)	(753,354)	(3,478,854)
Net Maturity Claim	-	681,375	3,809,775	2,944,492	5,673,743	13,109,385
Survival Benefit	-	2,182,500	20,918,250	36,793,984	52,670,730	112,565,464
Survival Benefit Payable	-	-	4,914,500	10,136,250	9,933,500	24,984,250
Payable of Previous Year	-	-	-	(4,914,500)	(10,136,250)	(15,050,750)
Net Survival Benefit	-	2,182,500	25,832,750	42,015,734	52,467,980	122,498,964
Surrendered value Paid	332,977	16,981,588	19,933,578	28,874,939	40,429,473	106,552,555

Source: - Financial Statement of NLIC

The above table has been shown on the following figure.

Figure - 4.11
Claim Statement of NLIC



Above table and chart shows, Survival benefit covers 40% that maximum amount of total claims settled by NLIC. Then after, Surrender Value covers 34% of total claims settled. Death Claim covers 22% and Maturity Claim covers only 4% of total claims settled due to company have run only nine years till F.Y. 065/066 and it has policy with minimum term of Five years and 1st survival benefit payable term is also started after completion of Five years of policy started in money back policy. NLIC has settled Rs. 68,220,827/- on Death Claim, Rs. 13,109,385/- on Maturity Claim, Rs. 106,552,555/- on Policy Surrender for termination of contract before maturity and Rs. 122,498,964/- on Survival Benefits.

4.11.1 Death Claim to Total Premium Collection

Life insurance is legal contract made against the risks related to human being's life. In fact, if the insured meets incidentally and sudden death, the financial protection to his depended family provided by the insurer as mentioned in policy paper. Therefore, the Insured, who deals with the Life Insurance Business due to motive of minimize the risk of financial problems for uncertainty of their life rather than financial saving for his old age with bonus or benefit of exemption on income tax. So there is very close relationship between settlement on death claim and premium collection.

The ratio measures Death Claim to Total Premium Collection. It reveals the percentage of death claim settled by company to premium collection. It is computed using following equation It is computed using following equation:

$$\text{Death Claim to Total Premium Collection} = \frac{\text{Death Claim}}{\text{Total Premium Collection}}$$

Table - 4.26

Death Claim to Total Premium Collection table of NLIC

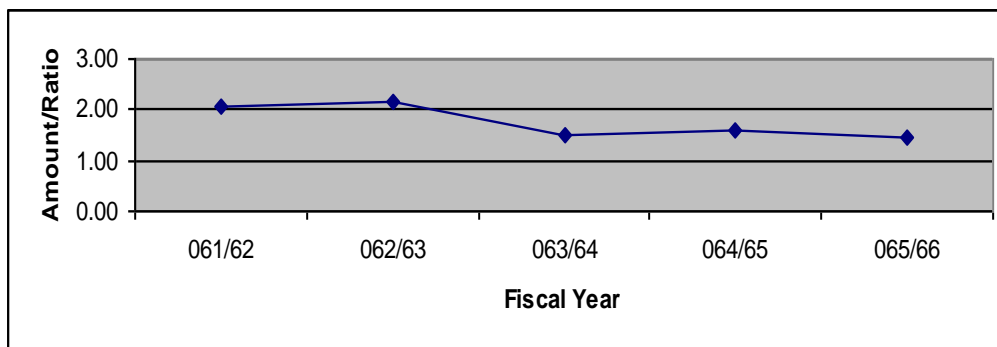
Fiscal Year	Premium Collection	Death Claim	Ratio
061/62	465,642,244	9,642,017	2.07
062/63	575,653,363	12,294,553	2.14
063/64	765,556,919	11,341,212	1.48
064/65	962,937,885	15,164,311	1.57
065/66	1,348,078,251	19,779,734	1.47
Total	4,117,868,662	68,221,827	8.73
Average	823,573,732	13,644,356	1.75

Source: - Financial Statement of NLIC

(Table-25)

Figure - 4.12

Death Claim to premium collection ratio



Above table shows, NLIC has increasing trend of death claim settlement and trend of death claim settled to premium collection ratio is fluctuated. NLIC has settled Rs.68.22 million compare to their premium collection from F.Y. 2061/062 to 2065/066, average death claim settlements of NLIC is 13.64 million. Similarly, average death claim to total premium collection ratio is 1.75%. NLIC has high average death ratio compare to life insurance practice. The main cause of loss or reduce in profit of life insurance

companies is death claim and high ratio of death claim clear about the ratio of bad business the company has achieved. In other hand increasing death claims create unnecessary work burden for the company and create conflict with insured, insured's family, general public and insurance board if the claim is repudiated. Therefore, NLIC should be conscious before accepting insurance proposals instead of give effort in sales only.

4.11.2 Surrender Value Payment to Total Premium Collection.

Certain amount returns back to the insured if insured request to terminate the contract of life insurance before maturity is called Surrender Value. Surrender Value calculated using the present value factor of paid-up value till surrender date and paid-up value is total of average premium paid by insured with bonus of paid premium. The ratio measures Payment on Surrender Value to Premium Collection. It reveals the percentage of policy surrender to total premium collection. It is computed using following equation
It is computed using following equation:

$$\text{Surrender Value Payment to Total Premium Collection} = \frac{\text{Surrender Value Payment}}{\text{Total Premium Collection}}$$

Table - 4.27

Surrender to Total Premium Collection table of NLIC

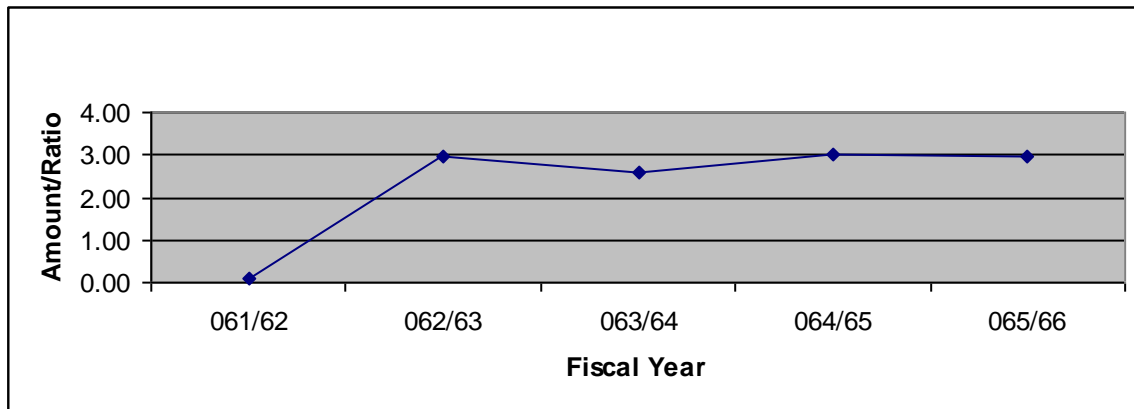
Fiscal Year	Premium Collection	Surrender Claim	Ratio
061/62	465,642,244	332,977	0.07
062/63	575,653,363	16,981,588	2.95
063/64	765,556,919	19,933,578	2.60
064/65	962,937,885	28,874,939	3.00
065/66	1,348,078,251	40,229,473	2.98
Total	4,117,868,662	106,352,555	11.61
Average	823,573,732	21,270,511	2.32

Source: - Financial Statement of NLIC

(Table-25)

Figure - 4.13

Surrender value paid to premium collection ratio



Above table shows, NLIC has increasing trend of Surrender Value payment but ratio of policy surrender to its premium collection ratio is fluctuating trend. NLIC has paid average surrender value of Rs.21.27 million that is 2.58% of its premium collection. High ratio of policy surrender clarifies the expression of dissatisfaction against company's policy through life insured and it may be cause of increase in lapsed and loaned policies. In other hand, increasing policy surrenders create unnecessary work burden for the company. Therefore, NLIC should be conscious about policy surrender and need to take improvable action and should improve in policy making in favor to insured instead of give effort in sales only.

4.12 Major Findings of The study

The major empirical findings of the whole study are presented as under;

1 Size of Working capital

The first part of categorized part of analysis deals with the size of the working capital. The size of working capital largely affected the trade off between risk and profitability of the corporation. So, it should neither be high nor be low. Above analysis shows the low level of current assets in total assets that denote the less liquid position of the corporation and higher risk technical insolvency. The percentage of current assets on total assets is 13.90% on average with 27.92% of variation on it. This ratio has decrease to 7.96% from 18.33% during the study period. The size of total assets is increasing with the increase in current assets. Such smaller investment in current assets indicates

the aggressive current assets policy of the corporation. The size of net working capital is in fluctuating trend. The ratio net working capital to operating income is 626.58% on average during the study period. It indicates less utilization of working capital where operating capital is incomparably smaller than net working capital except in year 062/063.

2 Structure of Working Capital

Investment constitutes the most important and larger element of NLIC on current assets. During the study period, 78.52% of current assets are held by investment. Cash and bank balance in another important element of current assets that held 19.34%. Receivable covers a minute part of current assets i.e. 0.22%, it is in decreasing trend except in fiscal year 064/ 065. Misc. current assets constitute a more significant element of NLIC's current assets which is 1.92% in average.

3. Financing of Current Assets

Financing mix of NLIC has been analyzed in this part of analysis. The analysis showed that the corporation has conservative working capital policy since it has needed low level of working capital and working capital is of permanent nature. More than 60% of total assets are financed by long term source of financing. Therefore, most of the current assets are financed by long term sources. On analysis, long term financing is far grater than fixed assets. Largest portion of long term financing was supplied by life assured fund. There was no any long term loan in any year of the study period. This indicates that corporation has eliminated its external financing by using internal funds.

4. Growth of Working capital

The growth trend of current assets is highly increasing than operating income. The indices of current assets indicate that the speed of total assets is faster than of operating income and current assets.

There is positive correlation between current assets and total assets but the correlation of current assets with operating income is high degree of negative. It clarifies that

working capital is not always dependent on operating income but the study shows that working capital is dependent upon total assets.

5. Efficiency of Working Capital

The efficiency of management of working capital has been assessed with the help of operating income (sales). The sales of any organization affect the size of working capital and reflect the efficiency of the firm to manage assets. The volume of operating income and working capital is in fluctuating trend. So, turnover ratios are almost fluctuating trend. Current assets turnover ratio decreased to 0.0372 times from 0.172 times during the five years study period. Like wise, cash & bank balance turnover ratio decreased to 0.18 times from 1.15 times, receivables turnover ratio decreased to 7.45 times from 634.38 times and net working capital turnover ratio is 0.067 times from 9.858 times. From the analysis it is revealed that NLIC kept excess amount of working capital in comparison to net sales, which can not be considered as the sign of efficient management of working capital in the organization.

6. Profitability of Working Capital

Study of profit & loss account shows that the corporation is operating under the net profit position. But, its profitability can not be considered as sufficient with compared to the increment in investment in current assets. The average return on current assets during the study period is 3.34% with 52.89% of variation. It has decreased to 1.62% from 5.1%. Return on net working capital is also decreased to 5% from 128.70%. Similarly, return on capital employed is also decreasing trend. So, return on working capital has not provided satisfactory result. The profitability position is being unsatisfactory.

7. Liquidity Position

Liquidity ratios gave the result of good liquidity position of the NLIC. Current ratio is 1.84:1 in average with 30.53% variation. It told that current ratio is almost in the ratio of 2:1. Since there is no inventory in the firm, so quick ratio also same as current ratio. Average absolute ratio is 0.37% with variation of 54.05%. Above analysis shows that

the corporation has so far greater current assets than current liabilities in all years of observation that clarifies the better liquidity position in NLIC.

NLIC was regular in profit. The relationship between profitability and liquidity ratios shows that increase in liquidity reduce the profitability and decrease in liquidity increase in profitability during the study period i.e. there is negative correlation coefficient liquidity and profitability. That condition exactly meet the proposition 'higher the liquidity, lower the profitability.'

8. Trend Analysis

All the variables that affect the working capital are in fluctuating trend except cash and bank balance during the study period. Trend indices of cash and bank balance highest among the different variables. This indicates huge piling up of ideal amount of cash. Current assets have increased in a larger rate than total assets. Receivable is also in fluctuating trend.

9. Claim Analysis

Maturity and Survival benefit are the natural process of life insurance business. But company is careful about death claim and surrender. The volume of death claim and surrender is increasing every fiscal year. To eliminate death claim NLIC should be conscious before accepting insurance proposals and NLIC should be conscious about policy surrender and need to take improvable action and should improve in policy making in favor to insured instead of give effort in sales only.

CHAPTER - V

Summary, Conclusion & Recommendation

5.1 Introduction

In this chapter, summary of the study and conclusions derived from the study are presented. At last recommendations to the concerned body on the basis of the major findings are presented for the implementation and improvement in the future.

5.2 Summary

An enterprise must benefit from its own knowledge and competence by applying working capital techniques in its own organization for its betterment and effectiveness. Working capital techniques should be used to improve efficiency of the organization. Working capital management, a very sensitive area of financial management is the main concern of the study and it related to Nepal Life Insurance Company Pvt. Ltd. The main objective of the study is examine the working capital policy of NLIC and the specific objectives are to analyze and assess the size, growth, liquidity, profitability and efficiency of working capital and thereby analyzing the overall management policy of working capital in NLIC. For this purpose secondary data's are used to collect necessary information on working capital and other related variables. The final statements for the period are taken from website and direct visit of corporate office of NLIC. The available data are tabulated and analyzed by applying various important financial and statistical tools and techniques.

The size and structure of working capital is analyzed by comparing current assets and its components with different related variables. Liquidity and profitability ratios are calculated to evaluate the efficiency of working capital. Liquidity position is assessed by calculating different liquidities ratios, viz. current ratio, quick ratio and absolute liquidity ratio. The growth trend of working capital and its related variables are studies in trend analysis. Different statistical tools like mean, standard deviation, coefficient of variation, correlation coefficient and probable error are calculated for the meaningful interpretation of data.

On average, 13.90% of total assets are in liquid form and has a large part of current assets in the form of investment followed by cash and bank balance, misc. current assets and receivables. Since, it is a service provider business company; it does not need more working capital. So, a large part is tied up in form of investment. Total assets and current assets are interrelated but there is no any significant relationship between current assets and operating income. Current assets are more in comparison to fixed assets and operating income.

Most of the current assets of the company have been financed by long term financing. The company has followed conservative approach on financing of its current assets as all fixed assets and more than 50% of current assets has been financed by long term financing.

Total assets are increasing continuously making continuous increasing in current assets except in fiscal year 2064/065. But operating income is in fluctuating trend. The growth of current assets has not positive impact on operating income. Correlation coefficient shows current assets are positive correlation with total assets but negative correlation with operating income.

Receivable is effective as ACP is decreasing except fiscal year 063/064 & 064/065 its turnover is good. Cash is not effective as it has not good turnover ratio.

The profitability and liquidity position of the company is good but they are negatively correlated. Trend indices shows increasing current assets and total assets but current liability, net working capital and receivable are in fluctuating trend.

The volume of death claim and the surrender are increasing trend during the five year study period. But the ratio of both to total premium collection ration is in fluctuating trend. High volume of death claim and surrender affect the growth of the company so company conscious about it. Maturity and survival benefit (money back policy only) is the nature of the life insurance business.

5.3 Conclusions

This research, after a long analysis process, concludes that the overall working capital management of NLIC's is satisfactory level during the five years study period. There is sufficient amount of current assets to meet the current obligation of the company which is a sign of good liquidity position. The company has sound liquidity position and there is no probability of technological insolvency. Almost all of the variables of working capital are in increasing trend but the volume of operating income (sale) is in decreasing & fluctuating trend. The corporation has satisfactory level of profit but it has decreased in second fiscal year during the five year study period and increasing trend than after. Being a service provider, it doesn't need more fixed assets. So, a great proportion of total assets are current assets. As it doesn't require more liquidity, a large portion of current assets is investment. The company has effective working capital, good profitability & sufficient current assets. Low portion of receivable in current assets and decreasing level of ACP except fiscal year 2064/065 of NLIC indicates the good working capital management of the company. Besides this, this study also indicated some critical aspects of working capital management and has suggested too. NLIC being a service provider, kept a large volume of working capital, which indicates excess liquidity position. The trend of sales is fluctuating; it increased by high level at second fiscal year and again decreased high level at fourth fiscal of the five year study period. Average percentage of cash and bank balance is 19.34%. It is the second most important variable of current assets and it is increasing every fiscal year. Large portion of long term fund is invested in current assets where more than half of current assets are financed by long term sources. Lastly, the research is concluded by emphasizing the control over investment in current assets, applying cash management techniques to increase the portion of cash on total assets.

5.4 Recommendations

After analyzing the working capital management of Nepal life insurance company, interpretations about their financial activities is briefly presented in interpretation of presentation and analysis of data NLIC. The major findings from the study stated the following Recommendation with special interest to Life Insurance Organizations, Concerned Government Organizations, and Related Individuals.

- ❖ Structure of working capital shows an unbalanced figure. Element of working capital should be balanced by decreasing the investment and increasing the cash and bank balance to meet its short term obligations as its business is uncertain i.e. the company may meet the time at any time when it should pay a large amount. NLIC should make regular check to identify both excess and short current assets. This avoids risk in management of working capital. These can check through the study of cash flow statement, ratio analysis and funds flow analysis. These financial tools help to identify the deviation.
- ❖ The company is suggested to make a working capital management policy for the proper management of working capital as the efficient management of resources depends upon the working capital management policy & no such policy could be found during the study period.
- ❖ The standard ratio between current and fixed assets that should be maintained can't be defined but in the present situation, the importance of fixed investment on service business can't be ignored. The investment of company in fixed assets seems to be very low; it is suggested to be increased.
- ❖ The relation between the company and re-insurer has not be studied in the study but the relation can be improved more by paying the re-insurer as firm has enough profit and reserves.

- ❖ It is suggested to study reason behind the decreased on profit on second fiscal year during the study period and improve the performance learning the reason. Working capital management is closely related to this decrease.
- ❖ Although the firm has financed its fixed assets and more than half of the working capital by long term financing, the need of the working capital of the company and working capital is of permanent nature, it can be said that the firm has followed conservative approach of financing. This lowers the risk and return. So, it is suggested to reduce the long term financing in working capital.
- ❖ The trend of current assets shows increasing trend but the correlation coefficient shows negative relationship between current assets and operating income. So, it is suggested to search for the better use of the funds.
- ❖ The management should give attention toward fluctuating trend of receivable turnover, cash & bank balance turnover, Current assets turnover, current liabilities and net working capital turnover ratios.
- ❖ Correlation coefficient between liquidity and profitability shows that there is no any relationship between liquidity and profitability of the company. Generally, there should be negative correlation coefficient between liquidity and profitability. The company should its investment on current assets to establish proper relation between them.
- ❖ The volume of death claim and surrender is increasing every fiscal year. To eliminate death claim NLIC should be conscious before accepting insurance proposals and NLIC should be conscious about policy surrender and need to take improvable action and should improve in policy making in favor to insured instead of give effort in sales only.

- ❖ Beema Samiti is enjoying collection of huge amount against service fee from different insurance companies, agents and related individuals. Nevertheless, it has not providing effective and proficient services in particular sectors. Therefore, the insurance companies and related individuals sprit about to provide service fee to Beema Samiti is burden. Because it is able to develop better rules and regulation to operate competitive business in Nepalese insurance business industry but unable to follow-up own rules due to lack of monitoring and inspection. Insurance board should systematize, regularize, develop and regulate the insurance business in kingdom more effectively, provide proper service.
- ❖ Lack of orientation in public awareness about importance of Life insurance is the major problems in Nepal and even postgraduate students have only few knowledge of life insurance. Therefore, life insurance companies and Beema Samiti jointly promote the education about life insurance and need to conduct orientation and promotional activities to provide public awareness especially agents must be properly trained and they should be licensed after providing proper knowledge of insurance. Life insurance companies are only concentrated in maximize profit and increase business, they should bear social responsibilities, and provide knowledge of importance of life insurance.
- ❖ Although life insurance companies are also one of the financial institutions like banks and finance companies, they do not have any right to invest their fund directly to general public and other business like banks and finance companies. Nepalese life insurance companies have to invest 75% of the life fund in 'compulsory sectors' and rest in 'other sectors' as regulated by Beema Samiti. Life insurance companies got limited investment sector and feel lack of safety and good returnable investment sectors. Therefore, the insurance act and regulation should be clear and enough to guide the investment related matter according to the change in overall macro economy and money capital condition.

- ❖ It will be better like other manufacturing organization; insurance companies also need to diversify its regular expenses to their related account head, instead of expose in management expenses only. Then it will confer effective result in all departmental performance and help to make effective departmental long-term budgeting like production budget, investment budget, selling and distribution budget etc. instead of insurance companies are engaged on only short-term sales budget.

- ❖ The development of life insurance companies are just in grass-hood level in this 21st centaury, therefore the institutions of life insurance need to establish in Nepal like in other developed country.

- ❖ Due to limited life insurance companies operated in Nepal and in starting phase, life insurance companies are facing lack of trained and professional manpower in Nepal. Therefore, existing and new professional need to training about developed foreign life insurance with combined effort of Beema Samiti and Life Insurance Companies of Nepal.

- ❖ Lack of research and development in Nepalese life insurance companies and they are only aggressive to copy of Foreign Insurance Policies and directives. Life insurance companies of Nepal enjoying high profit and decreasing management expenses every year, but only reduce in management expenses and produce high margin of profit is not sufficient to operate any organization competitively, the reduction of management expenses compare to its revenue must be use in research & development, human resource development for potential threats, staff motivation & promotional activities.

- ❖ The rate of premium of insurance policy, which is regulated by Beema Samiti is also unscientific and only depend upon foreign actuary, it need to re-study and re-analyzed as per present situation and condition of the country.

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ANNEX-1

Summary of Insurance Companies in Nepal

S. N.	Name of Insurers	Registration Date (In B.S.)	Types of Insurance (Rs. in crore)	Paid up Capital (Rs. in crore)	Minimum Paid up capital according to Ins Act.	Remarks
1	Nepal insurance Co. Ltd.	2004/06/08	Non-life	10.27	10	
2	The oriental insurance Co. Ltd.	2024/05/30	Non-life			Branch office of foreign insurance company
3	Rastriya Beema Sasthan	2025/09/01	Life	0.93	25	
			Non-life	12.44	10	
4	National Insurance Co. Ltd.	2030/09/17	Non-life			Branch office of foreign insurance company
5	National Life Insurance Co.Ltd. #	2044/09/23	Life	13.20	25	
6	Himalayan Jarnal Insurance Co. Ltd.	2050/04/06	Non-life	6.60	10	
7	United Insurance Co. (Nepal) Ltd.	2050/07/06	Non-life	7.20	10	
8	premier Insurance Co. (Nepal) Ltd.	2051/01/08	Non-life	6.30	10	
9	Everest Insurance Co. Ltd.	2051/02/17	Non-life	10	10	
10	Neco Insurance Co. Ltd.	2053/02/17	Non-life	10	10	
11	Sagarmatha Insurance Co. Lt.	2053/03/12	Non-life	10.21	10	
12	Alliance Insurance Co. Ltd.	2053/04/04	Non-life	6	10	
13	N. B. Insurance Co. Ltd.	2057/10/10	Non-life	10	10	
14	Nepal Life Insurance Co. Ltd.	2058/01/04	Life	30	25	
15	American Life Insurance Co. Ltd.	2058/04/18	Life			Branch office of foreign insurance company
16	Life Insurance Corporation (Nepal) Ltd.	2058/04/23	Life	25	25	
17	Prudential Insurance Co. Ltd.	2059/01/20	Non-life	10	10	
18	Shikhar Insurance Co. Ltd.	2061/07/26	Non-life	10	10	
19	Lumbini Insurance Co. Ltd.	2062/03/21	Non-life	10	10	
20	NLG Insurance Co. Ltd.	2062/06/23	Non-life	10	10	
21	Siddhartha Insurance Co. Ltd.	2062/12/23	Non-life	10	10	
22	Asian Life Insurance Co. Ltd.	2064/11/15	Life	25	25	
23	Surya Life Insurance Co. Ltd.	2064/12/06	Life	25	25	
24	Gurash Life Insurance Co. Ltd.	2064/12/18	Life	25	25	
25	Prime Life Insurance Co. Ltd.	2065/01/24	Life	25	25	

Source: - Beema Samiti

Date: - 2067/01/06

ANNEX-2
NEPAL LIFE INSURANCE CO. LTD.
HERITAGE PLAZA, KATHMANDU.
Balance Sheet
as on Asad 31, 2066

Assets and Properties	F/Y 2061/062	F/Y 2062/063	F/Y 22063/064	F/Y 2064/065	F/Y 2065/066
Fixed Assets (Cost less, depreciation)	89,620,851	89,470,230	91,179,166	235,052,699	327,118,749
Building Under Construction	9,371,894	75,201,766	92,175,891	-	-
Investment and Loans:-					
<u>a) Investment</u>				-	-
Government Securities (Development Bond)	218,325,000	218,325,000	455,557,319	477,795,607	472,101,963
Government Securities (5 % Special Debt)	19,035,679	22,244,078	20,443,763	-	-
Fixed Deposit in Banks	598,200,000	981,000,000	1,209,000,000	1,668,875,000	2,679,075,000
Shares (Govt. and Non-Govt.)	4,866,249	24,658,452	14,081,416	122,662,129	111,229,886
Debenture/Bond With Public Company	93,400,000	118,675,225	134,075,225	158,397,305	218,240,000
Real Estate	-	-	-	-	-
Other Investments (Policy Loan)	8,754,900	38,169,279	80,451,126	137,295,385	212,264,890
Other Long Term Loans				18,687,926	23,993,189
<u>b) Loans</u>					
Current Assets					
Cash and Bank Balance	31,204,491	44,336,206	65,476,241	83,727,602	99,772,308
Short term Investment	127,135,130	219,889,126	356,873,499	155,334,365	151,554,486
Deposits	221,831	228,831	249,931	15,620,197	13,607,324
Loans and Advances (Other Short Term Loans)	45,656,846	34,197,233	47,645,824	841,213	1,276,425
Miscellaneous Stock	3,339	292,519	206,339	494,186	1,345,213
Sundry Debtors	916,012	546,846	265,125	1,978,315	38,098
Other Assets				86,399,278	90,822,171
Miscellaneous Expenditure					
(to the extent not written off)					
Deferred Expenses	1,272,290	661,530	253,257	34,134,205	30,961,798
Preliminary & Pre-Operating Expenses	75,277	-	-	-	-
Leasehold Improvements	1,020,238	735,135	759,413	-	-
Total:	1,249,080,027	1,868,631,456	2,568,693,535	3,197,295,412	4,433,401,500
Capital and Liabilities					
Shareholders Capital					
Authorised Capital:					
(25,00,000 Equity Shares of Rs. 100 each)	250,000,000	250,000,000	250,000,000	250,000,000	300,000,000
Issued and Paid up Capital:	-	-	-	-	-
(Equity Shares of Rs.100 each)	250,000,000	250,000,000	250,000,000	250,000,000	300,000,000
Profit and Loss A/C	10,453,514	6,709,986	6,709,985	60,900,937	16,432,266
Life Assurance Fund	878,357,010	1,317,644,267	1,971,755,542	2,761,483,246	3,932,237,462
Proposed Dividend (Bonus Share)			50,000,000		
Current Liabilities & Provisions:-					
<u>a) Current Liabilities:</u>					
Estimated liabilities Payable for Claim intimated	2,607,924	5,871,516	4,667,250	19,378,362	17,705,200
Outstanding against Annuities	-	-	-	-	-
Re-insurance Premium Payable	-	-	-	-	-
Re-insurance Premium Reserve	-	-	-	-	-
Service Fee Payable To Bima Samiti	2,156,422	5,768,067	7,656,659	9,621,955	13,480,783
Agent Commission Payable	10,006,040	13,382,073	19,858,799	41,281,026	63,414,426
Short Tem Loans (Secured)	70,000,000	200,000,000	234,600,000		
Other Current Liabilities	25,499,117	69,255,547	23,445,300	54,629,886	90,131,363
<u>b) Provisions:</u>	-	-	-	-	-
Borrowings (Secured)	-	-	-	-	-
Total:	1,249,080,027	1,868,631,456	2,568,693,535	3,197,295,412	4,433,401,500

ANNEX - 3
NEPAL LIFE INSURANCE CO. LTD.
HERITAGE PLAZA, KATHMANDU.
Profit & Loss Account
as on Asad 31, 2066

Particulars	F/Y 2061/062	F/Y 2062/063	F/Y 22063/064	F/Y 2064/065	F/Y 2065/066
Income					
Transferred from Revenue A/C	-	-	-	-	-
Transferred from Life insurance fund	-	-	-	-	3,109,921
Income From Investment Loan and Others	11,615,014	51,396,080	17,391,939	14,747,029	21,058,965
Written Back Provision	-	-	-	-	-
Other Income	-	-	-	-	-
Total income (A) (operating Income)	11,615,014	51,396,080	17,391,939	14,747,029	24,168,886
Expenses					
Management expenses	-	-	5,749,668	7,922,330	12,327,292
Written off expenses	-	-	313,304	-	-
Provision for Employees housing			-	-	-
Provision for Employees Bonus	1,161,500	5,139,608	-	465,661	1,076,509
Income tax	-	-	3,649,178	2,168,086	2,725,576
Transferred to Life Fund	-	-	7,679,789	-	-
Total Expenses (B)	1,161,500	5,139,608	17,391,939	10,556,077	16,129,377
Gross profit (loss) C = (A-B)	10,453,514	46,256,472	-	4,190,952	8,039,509
Expenses pertains to Previous year	-	-	-	-	-
Profit transferred from Previous year		10,453,514	7,609,985	7,609,985	11,024,336
Amount available for Appropriation	10,453,514	46,256,472	7,609,985	10,900,937	19,063,845
(b) Catastrophe reserve		-	-	-	-
(c) Special reserve	-	-	-	-	-
(e) Proposed dividend	-	50,000,000	-	-	-
(f) other	-	-	-	-	(2,631,579)
Profit transferred to Balance sheet	10,453,514	6,709,986	7,609,985	10,900,937	16,432,266

ANNEX - 4
NEPAL LIFE INSURANCE CO. LTD.
HERITAGE PLAZA, KATHMANDU

Calculation of mean and coefficient of variation (CV) of current assets (X), Total Assets (Y) and ratio of current assets on total assets (Z)

X	\bar{X}	$(X - \bar{X})^2$	Y	\bar{y}
205.14	335.63	17,027.6401	1,249.08	2,677.42
299.49	335.63	1,306.0996	1,868.63	2,677.42
470.72	335.63	18,249.3081	2,568.69	2,677.42
344.40	335.63	76.9129	3,197.29	2,677.42
358.42	335.63	519.3841	4,503.40	2,677.42
$\sum X = 1678.17$		$\sum (X - \bar{X})^2 = 37179.3448$	$\sum Y = 13387.09$	

$(Y - \bar{y})^2$	Z	\bar{Z}	$(Z - \bar{Z})^2$
2,040,155.1556	16.42	13.90	6.3504
654,141.2641	16.03	13.90	4.5369
11,822.2129	18.33	13.90	19.6249
270,264.8169	10.77	13.90	9.7969
3,334,202.9604	7.96	13.90	35.2836
$\sum (Y - \bar{y})^2 = 5721489.359$	$\sum Z = 69.51$		$\sum (Z - \bar{Z})^2 = 75.5927$

$$\text{Mean of current assets } (\bar{X}) = \frac{\sum X}{N} = \frac{1678.17}{5} = 335.62$$

$$\text{Standard deviation of current assets } (\delta) = \sqrt{\frac{\sum (X - \bar{X})^2}{N}} = \frac{\sqrt{37179.3448}}{5} = 86.23$$

$$\text{Coefficient of Variation of Current Assets (CV)} = \frac{\delta}{\bar{X}} = \frac{86.23}{335.63} = 25.69\%$$

$$\text{Mean of Total Assets } (\bar{Y}) = \frac{\sum Y}{N} = \frac{13387.09}{5} = 2677.42$$

$$\text{Standard deviation of Total Assets } (\delta) = \sqrt{\frac{(\sum Y - \bar{Y})^2}{N}} = \frac{\sqrt{5721489.359}}{5} = 1069.72$$

$$\text{Coefficient of Variation of Total Assets (CV)} = \frac{\delta}{\bar{Y}} = \frac{1069.72}{2677.42} = 39.95\%$$

$$\text{Mean of Ratio of Current Assets on Total Assets } (\bar{Z}) = \frac{\sum Z}{N} = \frac{69.51}{5} = 13.90$$

$$\text{Standard deviation of Ratio of Current Assets on Total Assets } (\delta) = \sqrt{\frac{(\sum Z - \bar{Z})^2}{N}} = \frac{\sqrt{75.5927}}{5} = 3.89$$

$$\begin{aligned} \text{Coefficient of Variation of Ratio of Current Assets on Total Assets (CV)} &= \frac{\delta}{\bar{Z}} \\ &= \frac{3.89}{13.90} = 27.97\% \end{aligned}$$

ANNEX - 5
NEPAL LIFE INSURANCE CO. LTD.
HERITAGE PLAZA, KATHMANDU

Calculation of correlation of coefficient in order to test relation between Current Assets (X) and Total Assets (Y)

(Rs. in Million)

Current Assets (X)	Total Assets (Y)	XY	X ²	Y ²
205.14	1,249.08	256236.2712	42082.4196	1560200.846
299.49	1,868.63	559635.9987	89694.2601	3491778.077
470.72	2,568.69	1209133.757	221577.3184	6598168.316
344.40	3,197.29	1101146.476	118611.36	10222663.34
358.42	4,503.40	1614108.628	128464.8964	20280611.56
$\sum X = 1678.17$	$\sum Y = 13387.09$	$\sum XY = 4740261.131$	$\sum X^2 = 600430.2545$	$\sum Y^2 = 42123422.14$

Correlation Coefficient between Current Assets & Total Assets

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

$$= \frac{5 \times 4740261.131 - 1678.17 \times 13387.09}{\sqrt{[5 \times 600430.2545 - (1678.17)^2]} \sqrt{[5 \times 32953025.14 - (13387.09)^2]}}$$

$$= 0.5114$$

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

$$= \frac{0.6745 \times (1 - 0.5114^2)}{\sqrt{5}}$$

$$= 0.2228$$

ANNEX - 6
NEPAL LIFE INSURANCE CO. LTD.
HERITAGE PLAZA, KATHMANDU

Calculation of coefficient of variation of fixed assets (X) and % of current assets on fixed assets (Y).

X (Rs. in Million)	\bar{X}	$(X - \bar{X})^2$	Y (in %)	\bar{y}	$(Y - \bar{y})^2$
98.99	201.84	10479.1325	207.22	180.34	722.5344
164.67	201.84	1381.6089	181.87	180.34	2.3409
183.36	201.84	341.5104	256.52	180.34	5803.3924
235.05	201.84	1102.9041	146.52	180.34	1143.7924
327.11	201.84	15592.5729	109.57	180.34	5008.3929
$\sum X = 1009.18$		$\sum (X - \bar{X})^2 = 28997.7288$	$\sum Y = 180.34$		$\sum (Y - \bar{y})^2 = 12680.453$

$$\text{Mean of fixed assets } (\bar{X}) = \frac{\sum X}{N} = \frac{1009.18}{5} = 201.84$$

$$\text{Standard deviation of fixed assets } (\delta) = \sqrt{\frac{\sum (X - \bar{X})^2}{N}} = \frac{\sqrt{28997.7288}}{5} = 76.15\%$$

$$\text{Coefficient of Variation of fixed Assets (CV)} = \frac{\delta}{\bar{X}} = \frac{76.15}{201.84} = 37.73\%$$

$$\text{Mean of percentage of Current Assets on Fixed Assets } (\bar{Y}) = \frac{\sum Y}{N} = \frac{901.70}{5} = 180.34$$

$$\begin{aligned} \text{Standard deviation of percentage of Current Assets on Fixed Assets } (\delta) &= \sqrt{\frac{(Y - \bar{Y})^2}{N}} \\ &= \sqrt{\frac{12680.453}{5}} \\ &= 50.36\% \end{aligned}$$

$$\begin{aligned} \text{Coefficient of Variation of percentage of Current Assets on Fixed Assets (CV)} &= \frac{\delta}{\bar{Y}} \\ &= \frac{50.36}{180.34} \\ &= 27.92\% \end{aligned}$$

ANNEX - 7
NEPAL LIFE INSURANCE CO. LTD.
HERITAGE PLAZA, KATHMANDU

Calculation of coefficient of variation of Operating Income (X) and % of Current Assets on Operating Income (Y)

X (Rs. in Million)	\bar{X}	$(X - \bar{X})^2$	Y (in %)	\bar{y}	$(Y - \bar{y})^2$
11.62	23.87	150.0625	1766.14	1774.74	73.96
51.40	23.87	757.9009	582.71	1774.74	1420935.521
17.39	23.87	41.9904	2706.52	1774.74	868213.9684
14.75	23.87	83.1744	2335.35	1774.74	314283.5721
24.27	23.87	0.09	1482.96	1774.74	85135.5684
$\Sigma X = 119.33$		$\Sigma(X - \bar{X})^2 = 1033.2182$	$\Sigma Y = 8873.68$		$\Sigma(Y - \bar{y})^2 = 2688642.59$

$$\text{Mean of Operating Income } (\bar{X}) = \frac{\sum X}{N} = \frac{119.33}{5} = 23.87$$

$$\text{Standard deviation of Operating Income } (\delta) = \sqrt{\frac{(X - \bar{X})^2}{N}} = \sqrt{\frac{1033.2182}{5}} = 14.38\%$$

$$\text{Coefficient of Variation of Operating Income (CV)} = \frac{\delta}{\bar{X}} = \frac{14.38}{23.87} = 60.22\%$$

$$\text{Mean of percentage of Current Assets on Operating Income } (\bar{Y}) = \frac{\sum Y}{N} = \frac{8873.68}{5} = 1774.74$$

$$\text{Standard deviation of percentage of Current Assets on Operating Income } (\delta) = \sqrt{\frac{(Y - \bar{Y})^2}{N}}$$

$$= \frac{\sqrt{2688642.59}}{5} = 733.30\%$$

$$\begin{aligned} \text{Coefficient of Variation of percentage of Current Assets on Operating Income (CV)} &= \frac{\delta}{Y} \\ &= \frac{733.30}{1774.74} \\ &= 41.32\% \end{aligned}$$

ANNEX - 8
NEPAL LIFE INSURANCE CO. LTD.
HERITAGE PLAZA, KATHMANDU

Calculation of correlation of coefficient between Current Assets (X) and Operating Income (Y)
(Rs.
in Million)

Current Assets (X)	Operating Income (Y)	XY	X ²	Y ²
205.14	11.62	2383.7268	42082.4196	135.0244
299.49	51.40	15393.786	89694.2601	2641.96
470.72	17.39	8185.8208	221577.3184	302.4121
344.40	14.75	5079.90	118611.36	217.5625
358.42	24.27	8663.0114	128464.8964	584.1889
ΣX = 1678.17	ΣY = 119.33	ΣXY = 39706.245	ΣX² = 600430.2545	ΣY² = 3881.1479

Correlation Coefficient between Current Assets & Operating Income

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

$$= \frac{5 \times 39706.245 - 1678.17 \times 119.33}{\sqrt{[5 \times 600430.2545 - (1678.17)^2]} \sqrt{[5 \times 3881.1479 - (119.33)^2]}}$$

$$= -0.056$$

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

$$= \frac{0.6745 \times [1 - (-0.056)^2]}{\sqrt{5}}$$

$$= 0.30070$$

ANNEX - 9
NEPAL LIFE INSURANCE CO. LTD.
HERITAGE PLAZA, KATHMANDU

Calculation of Networking Capital

F/Y	Current Assets (CA)	Current Liabilities (CL)	Net Working Capital (CA-CL)
061/062	205137649	110269503	94868146
062/063	299490761	294277203	5213558
063/064	470716959	290228008	180488951
064/065	344395156	124911228	219483928
065/066	358416025	184731772	173684253

ANNEX - 10
NEPAL LIFE INSURANCE CO. LTD.
HERITAGE PLAZA, KATHMANDU

Calculation of coefficient of variation of Net Working Capital (X) and % of Current Assets on Net Working Capital (Y)

X (Rs. in Million)	\bar{X}	$(X - \bar{X})^2$	Y (in %)	\bar{y}	$(Y - \bar{y})^2$
94.87	134.75	1590.4144	46.25	32.8	80.9025
5.21	134.75	16780.6116	1.74	32.8	964.7236
180.49	134.75	2092.1476	3.84	32.8	838.6816
219.48	134.75	7179.1724	63.73	32.8	956.6649
173.68	134.75	1515.5449	48.46	32.8	245.2356
$\Sigma X = 673.73$		$\Sigma(X - \bar{X})^2 = 29157.8914$	$\Sigma Y = 164.02$		$\Sigma(Y - \bar{y})^2 = 3186.1961$

$$\text{Mean of Net Working Capital } (\bar{X}) = \frac{\sum X}{N} = \frac{673.73}{5} = 134.75$$

$$\text{Standard deviation of Net Working Capital } (\delta) = \sqrt{\frac{\sum (X - \bar{X})^2}{N}} = \frac{\sqrt{29157.8914}}{5} = 76.36\%$$

$$\text{Coefficient of Variation of Net Working Capital (CV)} = \frac{\delta}{\bar{X}} = \frac{76.36}{134.75} = 56.67\%$$

$$\text{Mean of percentage of Current Assets on Net Working Capital } (\bar{Y}) = \frac{\sum Y}{N} = \frac{164.02}{5} = 32.8$$

Standard deviation of percentage of Current Assets on Net Working Capital (δ)

$$= \sqrt{\frac{(Y - \bar{Y})^2}{N}}$$

$$= \frac{\sqrt{3186.1961}}{5}$$

$$= 25.24\%$$

Coefficient of Variation of percentage of Current Assets on Net Working Capital (CV) = $\frac{\delta}{Y}$

$$= \frac{25.24}{32.8} = 76.95\%$$

ANNEX - 11
NEPAL LIFE INSURANCE CO. LTD.
HERITAGE PLAZA, KATHMANDU

Calculation of coefficient of variation of Receivables (X) and % of Current Assets on Receivables (Y).

X (Rs. in Million)	\bar{X}	$(X - \bar{X})^2$	Y (in %)	\bar{y}	$(Y - \bar{y})^2$
0.916	0.75	0.027556	0.447	0.25	0.038809
0.547	0.75	0.041209	0.183	0.25	0.004489
0.267	0.75	0.235225	0.056	0.25	0.037636
1.978	0.75	1.507984	0.574	0.25	0.104976
0.038	0.75	0.506944	0.011	0.25	0.057121
$\Sigma X = 3.744$		$\Sigma(X - \bar{X})^2 = 2.318918$	$\Sigma Y = 1.271$		$\Sigma(Y - \bar{y})^2 = 0.243031$

$$\text{Mean of Receivables } (\bar{X}) = \frac{\sum X}{N} = \frac{3.744}{5} = 0.75$$

$$\text{Standard deviation of Receivables } (\delta) = \sqrt{\frac{(X - \bar{X})^2}{N}} = \frac{\sqrt{2.318918}}{5} = 0.68\%$$

$$\text{Coefficient of Variation of Receivables (CV)} = \frac{\delta}{\bar{X}} = \frac{0.68}{0.75} = 91\%$$

$$\text{Mean of percentage of Current Assets on Receivables } (\bar{Y}) = \frac{\sum Y}{N} = \frac{1.271}{5} = 0.25$$

$$\text{Standard deviation of percentage of Current Assets on Receivables } (\delta) = \sqrt{\frac{(Y - \bar{Y})^2}{N}}$$

$$= \frac{\sqrt{0.243031}}{5} = 0.22\%$$

Coefficient of Variation of percentage of Current Assets on Receivables (CV) = $\frac{\delta}{Y}$

$$= \frac{0.22}{0.25} = 88\%$$

ANNEX - 12
NEPAL LIFE INSURANCE CO. LTD.
HERITAGE PLAZA, KATHMANDU

Calculation of coefficient of variation of Cash & Bank Balance (X) and % of Current Assets on Cash & Bank Balance (Y)

X (Rs. in Million)	\bar{X}	$(X - \bar{X})^2$	Y (in %)	\bar{y}	$(Y - \bar{y})^2$
31.2	64.90	1135.69	15.21	19.21	16.00
44.34	64.90	422.7136	14.80	19.21	19.4481
65.48	64.90	0.3364	13.91	19.21	28.09
83.73	64.90	354.5689	24.31	19.21	26.01
99.77	64.90	1215.9169	27.84	19.21	74.4769
$\Sigma X = 324.52$		$\Sigma(X - \bar{X})^2 = 3126.2258$	$\Sigma Y = 96.07$		$\Sigma(Y - \bar{y})^2 = 164.025$

$$\text{Mean of Cash \& Bank Balance } (\bar{X}) = \frac{\sum X}{N} = \frac{324.52}{5} = 64.90$$

$$\text{Standard deviation of Cash \& Bank Balance } (\delta) = \sqrt{\frac{\sum (X - \bar{X})^2}{N}} = \sqrt{\frac{3126.2258}{5}} = 25\%$$

$$\text{Coefficient of Variation of Cash \& Bank Balance (CV)} = \frac{\delta}{\bar{X}} = \frac{25}{64.90} = 38.53\%$$

$$\text{Mean of percentage of Current Assets on Cash \& Bank Balance } (\bar{Y}) = \frac{\sum Y}{N} = \frac{96.07}{5} = 19.21$$

Standard deviation of percentage of Current Assets on Cash & Bank Balance (δ)

$$= \sqrt{\frac{\sum (Y - \bar{Y})^2}{N}} = \frac{\sqrt{164.025}}{5} = 5.73\%$$

$$\text{Coefficient of Variation of percentage of Current Assets on Cash \& Bank Balance (CV)} = \frac{\delta}{\bar{Y}}$$

$$= \frac{5.73}{19.21} = 29.83\%$$

ANNEX - 13
NEPAL LIFE INSURANCE CO. LTD.
HERITAGE PLAZA, KATHMANDU

Calculation of coefficient of variation of Investment (X) and % of Current Assets on Investment (Y)

X (Rs. in Million)	\bar{X}	$(X - \bar{X})^2$	Y (in %)	\bar{y}	$(Y - \bar{y})^2$
172.79	263.53	8233.7476	84.23	78.68	30.8025
254.09	263.53	89.1136	84.84	78.68	37.956
404.52	263.53	19878.1801	85.94	78.68	52.7076
242.58	263.53	438.9025	70.44	78.68	67.8976
243.65	263.53	395.2144	67.98	78.68	114.49
$\Sigma X = 1317.63$		$\Sigma(X - \bar{X})^2 = 29035.1582$	$\Sigma Y = 393.42$		$\Sigma(Y - \bar{y})^2 = 303.8433$

$$\text{Mean of Investment } (\bar{X}) = \frac{\sum X}{N} = \frac{1317.63}{5} = 263.53$$

$$\text{Standard deviation of Investment } (\delta) = \sqrt{\frac{\sum (X - \bar{X})^2}{N}} = \frac{\sqrt{29035.1582}}{5} = 76.20\%$$

$$\text{Coefficient of Variation of Investment (CV)} = \frac{\delta}{\bar{X}} = \frac{76.20}{263.53} = 28.92\%$$

$$\text{Mean of percentage of Current Assets on Investment } (\bar{Y}) = \frac{\sum Y}{N} = \frac{393.42}{5} = 78.68$$

$$\text{Standard deviation of percentage of Current Assets on Investment } (\delta) = \sqrt{\frac{\sum (Y - \bar{Y})^2}{N}} = \frac{\sqrt{303.8433}}{5} = 7.8\%$$

$$\text{Coefficient of Variation of percentage of Current Assets on Investment (CV)} = \frac{\delta}{\bar{Y}} = \frac{7.8}{78.68} = 9.91\%$$

ANNEX - 14
NEPAL LIFE INSURANCE CO. LTD.
HERITAGE PLAZA, KATHMANDU

Calculation of coefficient of variation of Misc. Current Assets (X) and % of Current Assets on Misc. Current Assets (Y)

X (Rs. in Million)	\bar{X}	$(X - \bar{X})^2$	Y (in %)	\bar{y}	$(Y - \bar{y})^2$
0.23	6.45	33.6884	0.11	1.85	3.0276
0.52	6.45	35.1649	0.17	1.85	2.8224
0.46	6.45	35.8801	0.10	1.85	3.0625
16.11	6.45	93.3156	4.68	1.85	8.0089
14.95	6.45	72.25	4.17	1.85	5.3824
$\Sigma X = 32.27$		$\Sigma(X - \bar{X})^2 = 275.299$	$\Sigma Y = 9.23$		$\Sigma(Y - \bar{y})^2 = 22.3038$

$$\text{Mean of Misc. Current Assets } (\bar{X}) = \frac{\sum X}{N} = \frac{32.27}{5} = 6.45$$

$$\text{Standard deviation of Misc. Current Assets } (\delta) = \sqrt{\frac{\sum (X - \bar{X})^2}{N}} = \sqrt{\frac{275.299}{5}} = 7.42\%$$

$$\text{Coefficient of Variation of Misc. Current Assets (CV)} = \frac{\delta}{\bar{X}} = \frac{7.42}{6.45} = 115.04\%$$

$$\text{Mean of percentage of Current Assets on Misc. Current Assets } (\bar{Y}) = \frac{\sum Y}{N} = \frac{9.23}{5} = 1.85$$

Standard deviation of percentage of Current Assets on Misc. Current Assets (δ)

$$= \sqrt{\frac{\sum (Y - \bar{Y})^2}{N}} \\ = \frac{\sqrt{22.3038}}{5} = 2.11\%$$

$$\text{Coefficient of Variation of percentage of Current Assets on Misc. Current Assets (CV)} = \frac{\delta}{\bar{Y}}$$

$$= \frac{2.11}{1.85} = 114.05\%$$

ANNEX - 15
NEPAL LIFE INSURANCE CO. LTD.
HERITAGE PLAZA, KATHMANDU

Long-term Financing = TL + NW - CL

Where,

TL = Total liabilities (Current liabilities + Long-term debt)

NW = Net worth (Share holder's equity, life assured fund, proposed dividend & profit)

CL = Current liabilities

F/Y	Long-term financing
061/062	110269503 + 1138810524 - 110269503 = 1138810524
062/063	294277203 + 1574354253 - 294277203 = 1574354253
063/064	290228008 + 2278465527 - 290228008 = 2278465527
064/065	124911228 + 3072384183 - 124911228 = 3072384183
065/066	184731772 + 4248669728 - 184731772 = 4248669728

Note: - In above calculation net worth equals to long term financing because of absence of long-term debts of NLIC

ANNEX - 16
NEPAL LIFE INSURANCE CO. LTD.
HERITAGE PLAZA, KATHMANDU

i) Calculation of trend equation & forecast of Current Assets for F/Y 2066/067 & 2067/068

F/Y	Current Assets (Y)	Deviation from F/Y 2063/064 (X)	XY	X ²
061/062	205.14	-2	-410.28	4
062/063	299.49	-1	-299.49	1
063/064	470.72	0	0	0
064/065	344.40	1	344.40	1
065/066	358.42	2	716.84	4
	ΣY = 1678.17	ΣX = 0	ΣXY = 351.47	ΣX ² = 10

The equation of trend line, $Y_c = a + bx$

$$\text{Where, } \sum X = 0, a = \frac{\sum Y}{N} = \frac{1678.17}{5} = 335.634$$

$$b = \frac{\sum XY}{\sum X^2} = \frac{351.47}{10} = 35.147$$

Hence, trend line $Y_c = 335.634 + 35.147X$ and the origin is F/Y 2063/064

So, Current Assets on F/Y 2066/067 (X=3) = $335.634 + 35.147 \times 3$
 = 441.08
 Current Assets on F/Y 2067/068 (X=4) = $335.634 + 35.147 \times 4$
 = 467.22

ii) Calculation of trend equation & forecast of Total Assets for F/Y 2066/067 & 2067/068

F/Y	Total Assets (Y)	Deviation from F/Y 2063/064 (X)	XY	X ²
061/062	1,249.08	-2	-2,498.16	4
062/063	1,868.63	-1	-1,868.63	1
063/064	2,568.69	0	0	0
064/065	3,197.29	1	3,197.29	1
065/066	4,503.40	2	9,006.80	4
	$\Sigma Y = 13387.09$	$\Sigma X = 0$	$\Sigma XY = 7837.31$	$\Sigma X^2 = 10$

The equation of trend line, $Y_c = a + bx$

$$\text{Where, } \Sigma X = 0, a = \frac{\Sigma Y}{N} = \frac{13387.09}{5} = 2677.42$$

$$b = \frac{\Sigma XY}{\Sigma X^2} = \frac{7837.31}{10} = 78.37$$

Hence, trend line $Y_c = 2677.42 + 78.37X$ and the origin is F/Y 2063/064

So, Total Assets on F/Y 2066/067 (X=3) = $2677.42 + 78.37 \times 3$
 = 2912.53
 Total Assets on F/Y 2067/068 (X=4) = $2677.42 + 78.37 \times 4$
 = 2990.90

iii) Calculation of trend equation & forecast of Operating Income for F/Y 2066/067 & 2067/068

F/Y	Operating Income (Y)	Deviation from F/Y 2063/064 (X)	XY	X ²
061/062	11.62	-2	-23.24	4
062/063	51.40	-1	-51.40	1
063/064	17.39	0	0	0
064/065	14.75	1	14.75	1
065/066	24.17	2	48.34	4
	$\Sigma Y = 119.33$	$\Sigma X = 0$	$\Sigma XY = -11.55$	$\Sigma X^2 = 10$

The equation of trend line, $Y_c = a + bx$

$$\text{Where, } \sum X = 0, a = \frac{\sum Y}{N} = \frac{119.33}{5} = 23.87$$

$$b = \frac{\sum XY}{\sum X^2} = \frac{-11.55}{10} = -1.16$$

Hence, trend line $Y_c = 23.87 + (-1.16) X$ and the origin is F/Y 2063/064

So, Operating Income on F/Y 2066/067 ($X=3$) = $23.87 + (-1.16) \times 3$
= 20.39

Operating Income on F/Y 2067/068 ($X=4$) = $23.87 + (-1.16) \times 4$
= 19.23

iv) Calculation of trend equation & forecast of Current Liabilities for F/Y 2066/067 & 2067/068

F/Y	Current Liabilities (Y)	Deviation from F/Y 2063/064 (X)	XY	X ²
061/062	110.27	-2	-220.54	4
062/063	294.28	-1	-294.28	1
063/064	290.23	0	0	0
064/065	124.91	1	124.91	1
065/066	184.73	2	369.94	4
	$\sum Y = 1004.42$	$\sum X = 0$	$\sum XY = -19.97$	$\sum X^2 = 10$

The equation of trend line, $Y_c = a + bx$

$$\text{Where, } \sum X = 0, a = \frac{\sum Y}{N} = \frac{1004.42}{5} = 200.42$$

$$b = \frac{\sum XY}{\sum X^2} = \frac{-19.97}{10} = -2$$

Hence, trend line $Y_c = 200.42 + (-2) X$ and the origin is F/Y 2063/064

So, Current Liabilities on F/Y 2066/067 ($X=3$) = $200.42 + (-2) \times 3$
= 194.88

Current Liabilities on F/Y 2067/068 ($X=4$) = $200.42 + (-2) \times 4$
= 192.88

v) Calculation of trend equation & forecast of Cash & Bank Balance for F/Y 2066/067 & 2067/068

F/Y	Cash & Bank Balance (Y)	Deviation from F/Y 2063/064 (X)	XY	X ²
061/062	31.2	-2	-62.4	4
062/063	44.34	-1	-44.34	1
063/064	65.48	0	0	0
064/065	83.73	1	83.73	1
065/066	99.77	2	199.54	4
	$\sum X = 324.52$	$\sum X = 0$	$\sum XY = 176.54$	$\sum X^2 = 10$

The equation of trend line, $Y_c = a + bx$

$$\text{Where, } \sum X = 0, a = \frac{\sum Y}{N} = \frac{324.52}{5} = 64.90$$

$$b = \frac{\sum XY}{\sum X^2} = \frac{176.54}{10} = 17.65$$

Hence, trend line $Y_c = 64.90 + 17.65 X$ and the origin is F/Y 2063/064

So, Cash & Bank Balance on F/Y 2066/067 ($X=3$) = $64.90 + 17.65 \times 3$
= 117.85

Cash & Bank Balance on F/Y 2067/068 ($X=4$) = $64.90 + 17.65 \times 4$
= 135.50

vi) Calculation of trend equation & forecast of Receivables for F/Y 2066/067 & 2067/068

F/Y	Receivables (Y)	Deviation from F/Y 2063/064 (X)	XY	X ²
061/062	0.916	-2	-1.832	4
062/063	0.547	-1	-0.547	1
063/064	0.267	0	0	0
064/065	1.978	1	1.978	1
065/066	0.038	2	0.076	4
	$\sum X = 3.744$	$\sum X = 0$	$\sum XY = -0.325$	$\sum X^2 = 10$

The equation of trend line, $Y_c = a + bx$

$$\text{Where, } \sum X = 0, a = \frac{\sum Y}{N} = \frac{3.744}{5} = 0.75$$

$$b = \frac{\sum XY}{\sum X^2} = \frac{-0.325}{10} = -0.033$$

Hence, trend line $Y_c = 0.75 + (-0.033) X$ and the origin is F/Y 2063/064

So, Receivables on F/Y 2066/067 ($X=3$) = $0.75 + (-0.033) \times 3$
= 0.65

Receivables on F/Y 2067/068 ($X=4$) = $0.75 + (-0.033) \times 4$
= 0.62

vi) Calculation of trend equation & forecast of Net Working Capital for F/Y 2066/067 & 2067/068

F/Y	Net Working Capital (Y)	Deviation from F/Y 2063/064 (X)	XY	X ²
061/062	94.87	-2	-289.74	4
062/063	5.21	-1	-5.21	1
063/064	180.49	0	0	0
064/065	219.48	1	219.48	1
065/066	173.68	2	347.36	4
	$\sum X = 673.73$	$\sum X = 0$	$\sum XY = 371.89$	$\sum X^2 = 10$

The equation of trend line, $Y_c = a + bx$

$$\text{Where, } \sum X = 0, a = \frac{\sum Y}{N} = \frac{673.73}{5} = 134.75$$

$$b = \frac{\sum XY}{\sum X^2} = \frac{371.89}{10} = 37.19$$

Hence, trend line $Y_c = 134.75 + 37.19 X$ and the origin is F/Y 2063/064

So, Net Working Capital on F/Y 2066/067 ($X=3$) = $134.75 + 37.19 \times 3$
= 246.32

Net Working Capital on F/Y 2067/068 ($X=4$) = $134.75 + 37.19 \times 4$
= 283.51

ANNEX - 17
NEPAL LIFE INSURANCE CO. LTD.
HERITAGE PLAZA, KATHMANDU

Calculation of Average Collection Period (ACP) & Receivable Turnover

F/Y	Operating Income (Sales)	Receivables	Turnover= $\frac{Sales}{Re\ ceivables}$	ACP= $\frac{Re\ ceivables}{Sales} \times 365Days$
061/062	11.62	0.916	12.28	28.79
062/063	51.40	0.547	93.99	3.88
063/064	17.39	0.267	65.60	5.56
064/065	14.75	1.978	7.45	48.96
065/066	24.17	0.038	634.38	0.58

ANNEX - 18
NEPAL LIFE INSURANCE CO. LTD.
HERITAGE PLAZA, KATHMANDU

Calculation of Capital Employed

F/Y	Total Assets	Current Liabilities	Capital Employed = TA - CL
061/062	1,249.08	110.27	1138.81
062/063	1,868.63	294.28	1574.35
063/064	2,568.69	290.23	2278.46
064/065	3,197.29	124.91	3072.38
065/066	4,503.40	184.73	4318.67

ANNEX - 19
NEPAL LIFE INSURANCE CO. LTD.
HERITAGE PLAZA, KATHMANDU

Calculation of correlation coefficient between Current Ratio & Return on Capital Employed.

Here,

X = Current Ratio (Liquidity)

Y = Return on Capital Employed (Profitability)

F/Y	X	Y	XY	X ²	Y ²
061/062	186	0.92	171.12	33124	0.8464
062/063	102	0.43	43.86	10404	0.1849
063/064	162	0.33	53.46	26244	0.1089
064/065	276	0.35	96.60	76176	0.1225
065/066	194	0.38	73.72	37637	0.1444
	ΣX = 920	ΣY = 2.4	ΣXY = 438.76	ΣX ² = 183585	ΣY ² = 1.4071

Correlation Coefficient between Current Ratio & Return on Capital Employed

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

$$= \frac{5 \times 438.76 - 920 \times 2.4}{\sqrt{[5 \times 183585 - (920)^2]} \sqrt{[5 \times 1.4071 - (2.4)^2]}}$$

$$= -0.047$$

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

$$= \frac{0.6745 \times [1 - (-0.047)^2]}{\sqrt{5}}$$

$$= 0.301$$