

**WORKING CAPITAL MANAGEMENT IN NEPALESE  
MANUFACTURING ENTERPRISES**  
**(A Comparative Study of Nepal Lube Oil and Unilever Nepal Limited)**

**Submitted by:**

**Bhim Prasad Lamichhane**

**Central Department of Management**

**Campus Roll No.: 455/065**

**T.U. Regd. No.: 7-2-22-1337-2004**

**Symbol No.: 280220/067**

**Submitted to**

**Office of the Dean**

**Faculty of Management**

**Tribhuvan University**

**Kirtipur, Kathmandu**

**In partial fulfillment of the requirement for the degree of  
Master of Business Studies**

**Kirtipur, Kathmandu**

**January, 2013**

## **RECOMMENDATION**

This is to certify that the thesis:

Submitted by:

**BHIM PRASAD LAMICHHANE**

**Entitled:**

**WORKING CAPITAL MANAGEMENT IN NEPALESE MANUFACTURING  
ENTERPRISES**

**(A Comparative Study of Nepal Lube Oil and Unilever Nepal Limited)**

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

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Prof. Dr. Radhe Shyam Pradham  
(Thesis Supervisor)

---

Prof. Dr. Bal Krishna Shrestha  
(Chairman, Research Committee)

---

Prof. Dr. Bal Krishna Shrestha  
(Head of Department)

Date: .....

## VIVA -VOCE SHEET

We have conducted the viva-voce examination of the thesis

Submitted by:

**BHIM PRASAD LAMICHHANE**

**Entitled:**

**WORKING CAPITAL MANAGEMENT IN NEPALESE MANUFACTURING  
ENTERPRISES**

**(A Comparative Study of Nepal Lube Oil and Unilever Nepal Limited)**

And found the thesis to be the original work of the student and written according to the prescribed format. We recommend the thesis to be accepted as partial fulfillment of the requirements for Master's Degree in Business Studies (M.B.S.).

### Viva-Voce Committee

Chairperson (Research Committee) .....

Member (Thesis Supervisor) .....

Member (External Expert) .....

Member Head of Department .....

Date: .....

## DECLARATION

I, hereby declare that the present study entitled "**Working Capital Management In Nepalese Manufacturing Enterprises: A Comparative Study Of Nepal Lube Oil And Unilever Nepal Limited**" submitted to Office of the Dean, Tribhuvan University, is based on my original research work. It has prepared in the form of Partial fulfillment of the requirements for the Master of Business Studies (MBS) under the supervision and guidance of Prof. Dr. Radhe Shyam Pradhan, Central Department of Management, University Campus, Tribhuvan University, Kirtipur, Kathmandu.

.....

Bhim Prasad Lamichhane

Researcher

Central Department of Management

Date: January, 2013

## **ACKNOWLEDGEMENTS**

This research work has been completed by my sole efforts. Many have made contributions in different ways to bring out it in this shape. I am thankful to Tribhuvan University, Faculty of Management for providing me such an opportunity to experience the practical knowledge of my subject. While preparing this thesis, I was encountered with different realities and facts of real world.

I owe a deep debt of gratitude to my thesis advisor Prof. Dr. Radhe Shyam Pradhan, Central Department of Management, for his constant encouragement, guidance and valuable supervision.

I would like to express debt of gratitude to Prof. Dr. Bal Krishna Shrestha, Head of Department, Mr. Rishi Raj Dawadi, Assistant Administrator and Mr. Mukunda Rimal from Central Department of Management for their valuable suggestions and support to carry out this study. I would like to thanks librarians of University Campus T.U. for providing various books, theses and other publications.

Similarly, I would like to express my hearty thanks towards all of my family members and relatives who spent their valuable time and effort and made great sacrifice for my higher education.

January, 2013

Kathamandu

Bhim Prasad Lamichhane

## TABLE OF CONTENTS

	<b>Page No.</b>
Recommendation	i
Viva-Voce Sheet	ii
Declaration	iii
Acknowledgements	iv
Tables of Contents	v
List of Tables	vii
Abbreviations	viii
<b>CHAPTER-I: INTRODUCTION</b>	<b>1</b>
1.1 Background of the Study	10
1.2 Statement of the Problem	12
1.3 Objectives of Study	14
1.4 Significance of the Study	14
1.5 Limitations of Study	15
1.6 Organization of the Study	16
<b>CHAPTER- II: REVIEW OF LITERATURE</b>	<b>8</b>
2.1 Theoretical Framework	17
2.1.1 Meaning of Working Capital	19
2.1.2 Concept of the Working Capital	20
2.1.3 Types of Working Capital Management	22
2.1.4 Working Capital Policy	23
2.1.4.1 Current Assets Investment Policy	24
2.1.4.2 Working Capital Financing Policy	25
2.1.5 Need for Working Capital	28
2.1.6 Working Capital Cash Flow Cycle	29
2.2 Review of Related Studies	34
2.3 Research Gap	40
<b>CHAPPTER-III: RESEARCH METHODOLOGY</b>	<b>32</b>
3.1 Research Plan and Design	41
3.2 Nature and Sources of Data	41
3.3 Population and Samples	41
3.4 Data Collection Technique	43
3.5 Data Processing Procedure	44

3.6 Validity and Reliability	44
3.7 Method of Data analysis and interpretation	44
3.7.1 Financial Analysis Tools	44
3.7.2 Statistical Tools	48
3.8 Operations Definitions and Assumptions	49
<b>CHAPTER-IV: PRESENTATION AND ANALYSIS OF DATA</b>	<b>42</b>
4.1 Composition of Current Assets	51
4.1.1 Comparison of Cash and Bank Balance Percentage and Trend Analysis	54
4.1.2 Comparison of Sundry Debtors Percentage and Trend Analysis	55
4.1.3 Comparison of Inventory Percentage and Trend Analysis	55
4.1.4 Comparison of Miscellaneous Current Assets Percentage and Trend Analysis	56
4.2 Composition of Current Liabilities	56
4.2.1 Comparison of Loan and Advances Percentage and Trend Analysis	58
4.2.2 Comparison of Sundry Creditors Percentage and Trend Analysis	59
4.2.3 Comparison of Miscellaneous Current Liabilities Percentage and Trend Analysis	60
4.2.4 Comparison of Percentage of Current Assets on Total Assets	60
4.3 Ratio Analysis	62
4.3.1 Liquidity Position	62
4.3.2 Turnover Ratio	65
4.3.3 Leverage Ratio	68
4.4 Statistical Tools	69
4.4.1 Coefficient of Correlation Analysis	69
4.5 Major Findings of the Study	72
<b>CHAPTER-V: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS</b>	<b>66</b>
5.1 Summary	75
5.2 Conclusion	78
5.3 Recommendations	79
<b>BIBLIOGRAPHY</b>	<b>81</b>
<b>APPENDICES</b>	<b>75</b>

## LIST OF TABLES

	<b>Page No.</b>
Table 4.1: Composition of Current Assets of ULN Ltd	52
Table 4.2: Composition of Current Assets of NLO Ltd	53
Table 4.3: Calculation of Trend Value of Cash and Bank Balance to Current Assets	54
Table 4.4: Calculation of Trend Values of Sundry Debtors to Current Assets Ratio	55
Table 4.5: Calculation of Trend value of Inventory to Current Assets Ratio	55
Table 4.6: Calculation of Trend Value of Miscellaneous Assets to Current Assets Ratio	56
Table 4.7: Composition of Current Liabilities of ULN Ltd	57
Table 4.8: Composition of Current Liabilities of NLO Ltd	58
Table 4.9: Calculation of Trend Value of Loan and Advance to CL Ratio	59
Table 4.10: Calculation of Trend Values of Sundry Creditors to Current Liabilities Ratio	59
Table 4.11: Calculation of Trend Value of Miscellaneous Liabilities to Current Liabilities	60
Table 4.12: Proportion of Current Assets to Total Assets of ULN Ltd	61
Table 4.13: Proportion of Current Assets to Total Assets of NLO Ltd	61
Table 4.14: Current Ratio	62
Table 4.15: Calculation of Trend Value of Current Ratio	63
Table 4.16: Quick Ratio	64
Table 4.17: Calculation of Trend Value of Quick Ratio	65
Table 4.18: Calculation of Receivable Turnover and Days Sales Outstanding of ULN Ltd and NLO Ltd	66
Table 4.19: Calculation of inventory Turnover Ratio of ULN Ltd and NLO Ltd	67
Table 4.20: Short –Term Financing to Total Financing Ratio of ULN Ltd and NLO Ltd	68
Table 4.21: Statement showing Correlation between Net Profit and Net Working Capital	70
Table 4.22: Statement Showing Correlation between Net Sales and Net Working Capital	71



## **ABBREVIATIONS**

AR	Account Receivable
CA	Current Assets
CL	Current Liabilities
CR	Current Ratio
DSO	Days Sales Outstanding
GP	Gross Profit
GPM	Gross profit Margin
N.L.O. Ltd	Nepal Lube Oil
N/G	Nepal Government
NIDC	Nepal Industrial Development Corporation
NP	Net Profit
NPM	Net Profit Margin
P.E.	Probable Error
QR	Quick Ratio
STF	Short Term Financing
TA	Total Assets
TF	Total Financing
U.N.Ltd	Unilever Nepal Limited
Viz	Namely
WC	Working Capital

## CHAPTER-I

### INTRODUCTION

#### 1.1 Background of the Study

Every firm wants to maximize the value of firm, it is the main goal of the enterprises. In this context, the firms always concentrate on providing quality product and service in the timely manner. Working capital is the part of the capital of a company that is employed in its trading operations. Working capital management is concerned with managing both current assets (CA) and current liabilities (CL) and the interrelationships between them. Working capital management is the crucial aspect of financial management. The success or failure of any business organization heavily depends upon the sort of efficiency in its working capital management.

Working capital refers to the resources of the firm that are used to conduct operations to do day-to-day work that makes the business successful. Without cash, bills cannot be paid, without receivables, the firm cannot allow timing difference between delivering goods or services and collecting the money to pay for them without inventories the firm cannot engage in production nor can it stock goods to provide immediate deliveries. As a result of the critical nature of current assets, the management of working capital is one of the most important areas in determining whether a firm will be successful. The term working capital refers to the current assets of the firm—those items that can be converted into cash within the year. Hence, working capital management is the management for the short-term. It is a process of short-term decision making regarding the current assets and current liabilities affecting the long-term operation of an enterprise. It is a process of planning and controlling the level of mix of current assets of the firm as well as financing these assets. It concludes decision regarding cash and marketable securities, receivables, inventories and current liabilities with an objective of maximizing the overall value of a firm.

Gross working capital is simply called as Working Capital and refers to the firm's investment in current assets. Current Assets are the assets which can be converted into cash within an accounting year (or operating cycle). It includes cash, marketable securities, inventory, accounts receivable and debtors (*Pandey, 1999*).

Net working capital is of critical importance to a firm. Net working capital refers to the difference between current assets and current liabilities. In other words, it is that part of current assets financed with long term funds. It focuses on the liquidity position of the firm and suggests extending which working capital need to be financed by permanent sources of funds. This concept helps to compare the liquidity of the same firm over a time.

Another way of defining working capital is that portion of firm's current assets financed with long term fund. Both liquid assets and liabilities are important in working capital management.

Net Working Capital can be positive or negative. A Positive net working capital will arise when current assets exceed current liabilities. A negative net working capital occurs when current liabilities are in excess of current assets.

Proper financial decision making is extremely important in for its efficiency and profitability. Most of the financial decisions of a bank are concerned with current assets and current liabilities. The Working Capital management of a manufacturing enterprise is different from other types of business.

Nevertheless to say that, manufacturing sector is also an important sector to develop economy but manufacturing sector is critical to pursuit of sustained growth due to its potential to promote to technological capacities, advance the diversification of production and exports and add values to exports and to foster intersectional industry linkages. In manufacturing companies working capital plays a vital role in the success or failure of the companies. Working capital management is an important aspect of manufacturing companies. Every business organization needs various types of assets to carryout their operation. Some

assets are required to meet long term requirement which are fixed assets and some are required to meet day to day expenses and to pay the current liabilities, which are termed as current assets. Working capital is related to the management of current assets. Among available option, proper management or working capital is the best possible options to improve their operational viability. Working capital is crucial aspect if financial management practices in manufacturing enterprises. Thus, the working capital is the lifeblood and controlling never-center of the business and success or failure of any business. Business organization is heavily depends upon efficiency on its working capital management.

There are two concept of working capital, net concept and gross concept. Net concept of working capital is the excess of current assets over current liabilities. Gross concept is the total of current assets. It is particularly useful for new companies in deciding size of the investment in each type of current assets. Inadequate investment effects firms' profitability as idle investment yields nothing. So, with the increase or decrease in business activities, working capital needs also fluctuate from time to time. The working capital management is the factor which decides success or failure of the firms. Hence the study on working capital management carries a greater significance.

## **1.2 Statement of the Problem**

Every organization has to manage their assets properly otherwise it is impossible to success in the competitive business environment. So, how to manage the working capital, which is a main problem for today's business organization. The efficient and effective management of working capital is must for smooth operation of the firm.

Working capital management decisions is the most sensitive for every firm. It is wilder activity in the working capital decision. It has various factors affecting the decisions; it should maintain optimal level of working capital. Determining the optimum level of working capital is the crux problems of every business organization, it constrained to maintain the trade- off between risk and return.

Working capital of the organization can not be managed in an easy way and it should not be neglected. Working capital management is the determinant of success or failure of the business organization both lower as well as higher working capital positions are dangerous from the business point of view. Excessive working capital means idles, which earns low profit for the firm, purity of working capital not only impairs but also results in production interruption and inefficiencies. Thus, the main problem is how to maintain the optimal level of working capital in manufacturing enterprises. Working capital management is linked with the continued existence of enterprise. Regardless of excellent products, effective marketing, efficient production and optimum fixed assets management. Management has lost the control of its firm because of liquidity.

Working capital is a crucial capital, which is compared as lifeblood of the human beings for the organization. In most enterprises, the management of working capital have been misunderstood as the management of money rather than its efficient utilization. If a firm wants to maintain sound financial position, it should maintain optimal level of working capital. Determining the optimal level of working capital is the crux of the problem of every business organization. It is strongly related to the trade off between risk and return.

Manager's still focuses their attention on the procurement aspect of working capital but not on the efficient utilization of funds defined in terms of working capital. There are several indicators of working capital so basically this study has tried to find out the issue of working capital management of Unilever Nepal Ltd and Nepal Lube Oil Ltd. The study deals with the following issues:

- ) What is the influence of working capital management in concerned companies?
- ) What are the major affecting factors of working capital management?
- ) What is the position of working capital in concerned companies?
- ) What is the relationship of working capital in manufacturing and blending companies?

### **1.3 Objectives of Study**

The main objective of the study is to examine the comparative working capital management of ULN Ltd and NLO Ltd. The specific objectives are as follows:

- ) To examine the influence of working capital management.
- ) To analyze the affecting factors of working capital management.
- ) To assess and analyse the position of working capital in ULN Ltd and NLO Ltd.
- ) To study the relationship of working capital pattern between the manufacturing and blending companies.

### **1.4 Significance of the Study**

Working capital is the investment made by a firm in short term assets. Working capital management involves a large portion of the firm's total assets as more than half the typical firm's total investment in current assets. Working capital is the most crucial area in enterprise management because many instances have shown that regardless of excellent production and wide fixed assets management has lost the control of its firm because a liquidity crisis resulted in takeover by creditors, forced merger or bankruptcy.

Nepalese manufacturing companies have a different pattern of scenario of using working capital. Most of the companies do not have any fixed policies. Because of lack of definite working capital policies, the cash flow management of companies is almost poor. They have made their huge level of investment in fixed and long term assets. Though they have such type of investment, they are facing difficulties on operating their day to day business because of poor working capital management.

This study will be helpful to carryout further research study in this field. Hence, these studies will diagnose the relationship of working capital management of the efficiency of the enterprise as a whole. It will also be useful for the new

management to improve the efficiency as well as the profitability with proper management of working capital and its components.

Working capital management is important for these reasons:

- ) More than half of the total assets are typically invested in current assets.
- ) A large proportion of time of the financial manager is allocated to working capital management.
- ) Small firms may minimize their investment in fixed assets by leasing but they cannot avoid their investment in cash, receivables and inventories.
- ) The relation between sales growth and the need to invest in current assets is close and direct.

### **1.5 Limitations of Study**

Limitations exist everywhere and this study is also not an exception of most of the private companies. Financial data may be invalid in Nepalese context. In other words, financial statements may not disclose the true financial data and information. In the case of companies set up in private sectors, access to internal information for outsiders is not possible; preparation of multiple finance statements is open secret and common practice in private sector. So the conclusions based on the available financial statements might not be correct in reality.

The study of working capital management of ULN Ltd and NLO Ltd is not free from the following limitations:

- ) The analysis depends upon secondary data.
- ) Analyzing only the working capital management does not give the overall capital structure situation of the company.
- ) The study covers a period of 5 fiscal years from FY 2063/64 to FY 2067/68 which will be tabulated and processed for drawing conclusions.

- ) The data is collected from financial statements. Therefore, the accuracy of the research work solely depends on the data provided by the concerned company.
- ) This study has been conducted to fulfill the requirement of the MBS program of T.U. for the prescribed time not for generalization purposes.

## **1.6 Organization of the Study**

This study has been divided into five chapters. Chapter one is introductory section deals with Background of the study, Brief overview of ULN Ltd and NLO Ltd, Statement of problems, Objectives of Study, Significance of the Study and Limitation of Study. Second chapter is literature review deals with the review of related literatures and available studies written and conducted by different experts and researches in the field of working capital. Chapter third is research methodology section presents the methodology used in this study. It deals with research design, sources of data, procedures employed and financial and statistical tools used for the study. Chapter four is related to presentation and analysis of data fulfils the objective of the study by presenting the data and analyzing them with the help of various statistical tools followed by methodology. In it explanation of the interview and the major findings of the whole study have been presented. Finally fifth chapter is related to summary, conclusions and recommendations. This is also the concluding part of the research which concludes summary of the study, conclusion of the study and recommendations for further study. Finally bibliography and appendices have been incorporated.



## **CHAPTER- II**

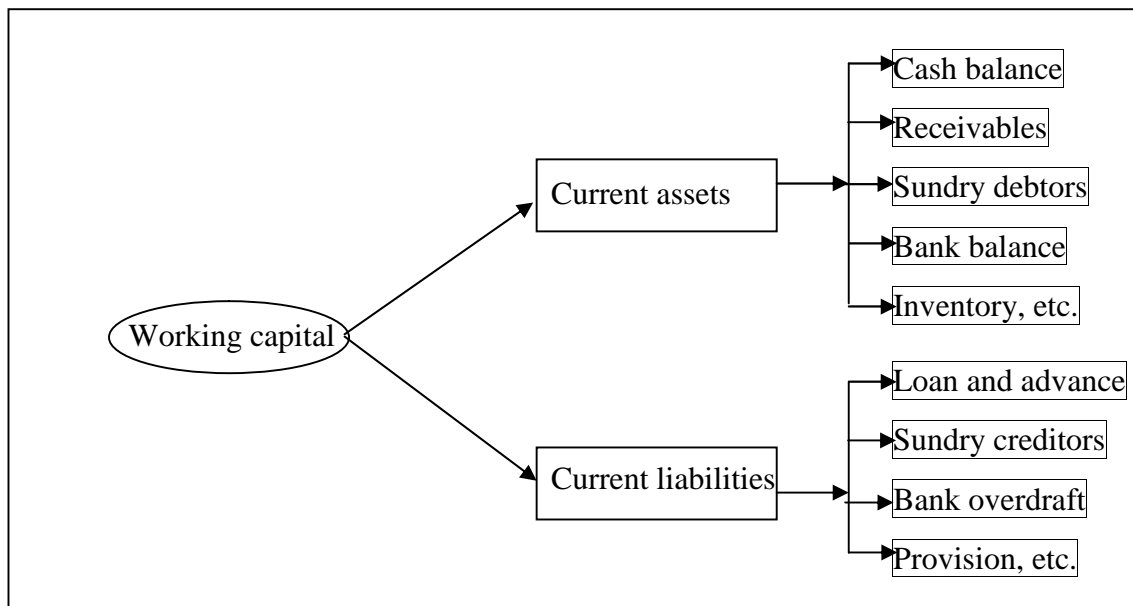
### **REVIEW OF LITERATURE**

Review of literature is the study of the past research studies and relevant materials. It is advancement of existing knowledge and in depth study of subject matter. In literature review, researcher takes hints from past dissertation but he or she should take need of republication. This chapter also gives the conceptual framework on working capital position and this chapter is basically concerned with review of literature relevant to the topic working Capital Position/Management with special reference Nepalese manufacturing sector. The previous study cannot be ignored because they provide the foundation to the present study. There must be continuity in research. This continuity in research is ensured by linking the present study with past research studies. This chapter highlight the literature that is available in concerned subject as to my knowledge, research work, and relevant study on this topic, review of journals and articles review of thesis work performed previously and its provides insight into the finding of earlier studies through the review of books, publications and previous studies related to the working capital management.

- ) Theoretical Framework
- ) Review of Previous Studies

#### **2.1 Theoretical Framework**

Working capital is refers to the firm, short term current assets and current liabilities. Working capital is defined as all short term asset used in daily operation. In this section an attempt has been made to form a sound theoretical background for the study. It covers meaning of working capital, concept of working capital, classification of working capital, need for working capital, working policy, financing of working capital analysis.



○ Dependent variable

□ Independent variable

Mathematically, it is expressed as:

$$WCM = f(CA) + f(CL)$$

$$f(CA) = CA_1 + CA_2 + CA_3 + CA_4$$

$$f(CL) = CL_1 + CL_2 + CL_3$$

The term net working capital refers to the difference between current assets and current liabilities. Current liabilities are those claims of outsiders, which are expected to mature for payment within an accounting year and include creditor, bills payable and outstanding expenses. Net working capital can be positive or negative. A positive net working capital will arise when current assets exceed current liabilities and a negative net working capital occurs when current liabilities are in excess of current assets. He also added that net working capital concept also covers the question of Judicious mix of long-term and short term funds for financing current assets.

Working capital we concluded that, all the corporations, whether public or private, manufacturing or non-manufacturing have just adequate working capital to serve in competitive market. It is because excessive or inadequate working

capital is dangerous from the firm's point of view. Excessive investment on working capital affects a firm's profitability just as idle investment, yields nothing. In the same way, inadequate investment on working capital affects the liquidity position of the company and leads to financial embarrassment and failure of the company.

### **2.1.1 Meaning of Working Capital**

Proper finance management is the great essence for every business organization from the point of view of achieving entire success. In this respect, working capital management plays a significant role in every concern including organizations. Banking and Financial institutions are the major aspect of the country, which support in the development of national economy.

Working capital refers to the firm, short term current assets and current liabilities. Working capital is defined as all short term assets used in daily operation. They consist primarily of cash, marketable securities, accounts receivable and inventories. Working capital is characterized by assets with a life span that is less than one year. Cash, marketable securities, accounts receivable and inventory have a life span of less than one year. It is also characterized by its nearness to cash or liquidity of the finished good, inventory, when sold is converted into accounts receivable. Accounts receivable on collection are transferred into cash the level of investment in working capital is affected by sales volume, production policies and collection policies.

Working capital is a controlling nerve of center of every business organization because no business can run smoothly without the proper control upon it. Thus, it plays the role in the success and failure of the organization. As the management of current assets and current liabilities of the business organization is necessary for day to day operations; it plays the key role in the success and failure of the organization not only in the short run, in the long run also. In the concern of the management of working capital there have been made number of studies from different management experts and students in various enterprises.

One of the important areas of day to day management of a firm's operation is the management of working capital. This is defined as the management of all the short term assets used in daily operations. The proper management of a firm's working capital is very much crucial to the financial manager in this competitive scenario. The effective management of working capital is the primary means of achieving the firm's goal of adequate liquidity.

It is not so simple for the manager to determine the suitable current assets investment policy, maintain proper relation of current assets with fixed and total assets. The major mistake on decision-making about working capital may be harmful to the organization and finally may create the situation of pushing the organization into liquidation. Therefore, it is must to maintain the good balance of the working capital. It should be neither excess nor less, just adequate to the need of the business firm. Adequate working capital brings security, confidence and continued existence of the business. In other hand, "excess inventory could affect profitability and inadequate amount of working capital can threaten solvency of the firm" (*Pandey; 1992:808*).

### **2.1.2 Concept of the Working Capital**

Working capital management is concerned with the problem that arises in the management of the current assets and current liabilities. It affects the overall functional areas of the firm. Thus, the success or failure of any firm virtually depends upon the efficiency of working capital management. It is the lifeblood and controlling nerve centre for any type of business organization because without the proper control upon it no business organization can run smoothly. As, it is the management of current assets and current liabilities; it plays the crucial role in success and failure of an organization as it deals with that part of assets, which are transformed from one form to another form during the course of manufacturing cycle.

Therefore, the role of working capital management is more significant for every business organization irrespective of their nature. There are two concepts of working capital.

- ) Gross working capital
- ) Net working capital

### **Gross working Capital**

The term gross working capital is regarded as the firm's total current assets. It focuses only the optimum investment in current assets and financing of current assets (*Khan and Jain; 1999:604*). "It consists of cash, marketable securities, receivables and inventories. From the management viewpoint, gross working capital deals with the problems of managing individual current assets in the day-to-day operations" (*Kucchal; 1990:157*). Current assets are the most powerful part of any organization. It can affect the profitability and can create the problem in daily operations. It also enables a firm to plan and control funds to maximize the return on investment. This concept is also known as qualitative concept.

### **Net working concept**

"Net working capital commonly defined as the difference between current assets and current liabilities. It focuses the liquidity position of the firm in long run. Net working capital can be positive or negative. Positive net working capital will arise when current assets exceed current liabilities and negative net working capitals arise when current liabilities exceed current assets. Positive working capital helps to increase the profit in reverse negative working capital may harmful to the company. So, net working capital can be more useful for the analysis of the trade off between profitability and risk" (*Khan and Jain; 1999:154*). "The concept of net working capital is also the equally important in every organization. "It enables a firm to determine how much amount is left for operational requirement" (*Kulkari; 1990:376*). Net working capital is not very useful for comparing the performance of different firms as a measure of liquidity, but it is quite useful for internal control. It is also known as quantitative concept.

### **2.1.3 Types of Working Capital Management**

The need for the current assets because of the operation cycle. The operation cycle is continuous process, that is because for need the current assets constantly. The need of current assets is not always the same. It depends upon the operations. The working capital can be classified into two groups:

- i. Permanent Working Capital
- ii. Variable or Temporary Working Capital

#### **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 and Jain; 1999:172*). "But it could vary from year to year depending upon the growth of the company and the stage of the business cycle in which it operates. Business firm could not be able to survive itself in the competitive market without permanent working capital. For instance, every business enterprises have to maintain a minimum stock of raw materials, work-in-progress, finished products, spare parts etc. always requires money for the payment of wages and salaries throughout the year" (*Kucchal; 161*).

#### **2. Temporary Working Capital**

Temporary working capital is also known as variables, seasonal and fluctuate working capital. It represents the extra working capital, required at certain times during the operating year to meet some special exigency. It may required in seasonal changes of business and certain abnormal conditions like strikes, lockouts, dull market conditions, cut-throat competition etc. Therefore, the firm to meet liquidity requirements that will last only temporarily creates temporary working capital.

### **2.1.4 Working Capital Policy**

"A firm's net working capital position is not only important as an index of liquidity but it is also used as a measure of the firm's risk. Risk, in this regard, means chances of the firm being unable to meet its obligations on due date" (*Pandey; 1992 B. S.:820*). Working capital management involves deciding upon the amount and composition of current assets and how to finance these assets.

These decisions involve trade off between risk and profitability. The greater the relative proportion of liquid assets, the lesser the profitability as well as the risk of running out of cash all other things being equal. The longer the composite maturity schedule of securities used to finance the firm, the lesser the risk of cash insolvency all other things being equal.

Again the profits of the firms are likely to be less. Resolution of the trade off between risk and profitability with respect to these decisions depends upon the risk preferences of management.

"Working capital policy refers to the firm's basic policies regarding target level of each category of current asset and how current assets will be financed" (*Weston; 1996: 401*). So, first of all, the firm has to determine how much funds should be invested in working capital in gross concept. Every firm can adopt different financing policy according to the financial manager's attitude towards the risk return trade off. One of the most important decisions of financial manager is how much current liabilities should be used to finance current assets. Every firm has to find out the different sources of funds for working capital. Goals of working capital policies area as follows:-

#### **a. Adequate Liquidity**

If a firm lacks sufficient cash to pay its bills when due, it will experience continuing problems. The most important goal is to achieve adequate liquidity for the conduct of day today operations.

## b. Minimization of risk

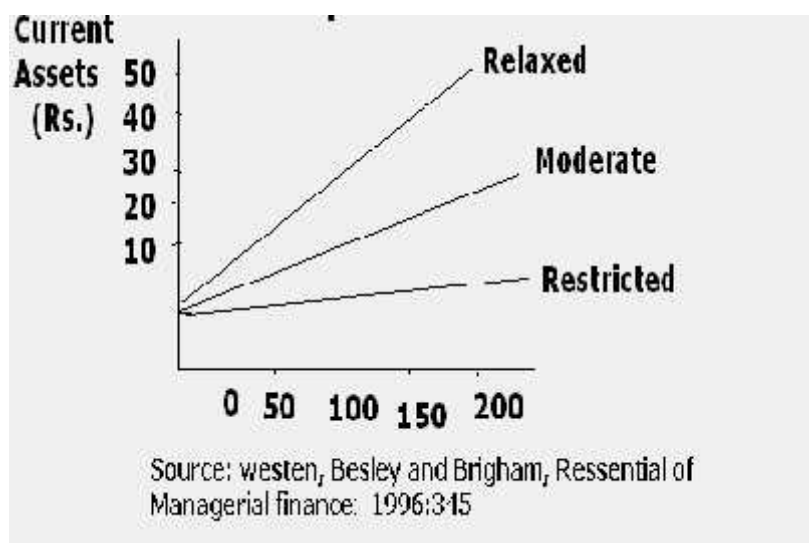
In selecting its sources of financing, payables and other short term liabilities may involve relatively low costs. The firm must ensure that these near term obligation do not become excessive compared to the current assets on hand to pay them. The matching of assets and liabilities among current accounts is a task of minimizing the risk of being unable to pay bills other obligations.

In the working capital management the firm has to determine how much funds to be invest in working in gross concept i.e. in current assets and how much should be financed in working capital through different sources of funds. The funds can be raised from long term sources and short term sources. So, the firm should decide how much of long term and short term funds to be financed in working capital.

### 2.1.4.1 Current Assets Investment Policy

Current assets investment policy refers to the policy regarding the total amount of current assets to be carried out to support the given level of sales. There are three alternative current assets investment policies- Relaxed, Moderate and Restricted. Under each policy, a different amount of working capital is carried to support each level of sales.

**Fig. 2.1**  
**Current Assets Investment Policy**





**i. Relaxed Current Assets Investment policy**

In this policy, the firm holds relatively large amount of current assets i.e. cash, marketable securities, inventory and receivables to support the given level of sales. This policy creates the longer receivable collection period due to the liberal credit policy. It also used to create longer inventory and cash conversion cycles. So, the policy provides the lowest expected return on investment with lower risk to the customers.

**ii. Moderate Current Assets Investment Policy**

In moderate policy, firm holds the amount of current assets in between the relaxed and restricted policies. Both risk and return are moderate in this policy.

**iii. Restricted Current assets Investment policy**

In restricted policy, firm holds the minimum amount of cash, marketable securities, inventory and receivable to support the given level of sales. This policy tends to reduce cash conversion cycle, receivable conversion cycle and inventory. The policy follows a tight credit policy, under which, firm used to bear the great risk of losing sales.

**2.1.4.2 Working Capital Financing Policy**

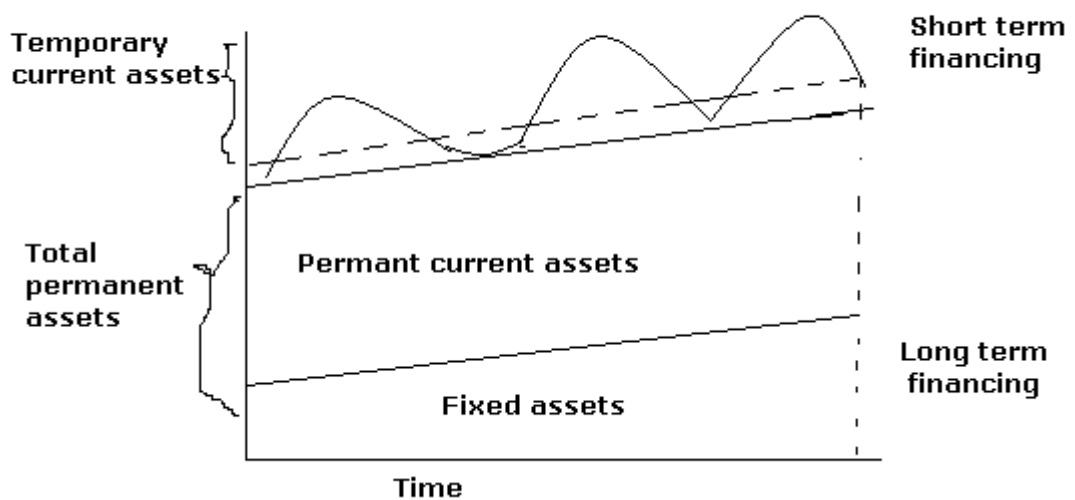
As current assets plays crucial role in any concern, it is must that working capital financing policy should clearly outline the different sources of financing in current assets. The manner in which the permanent and temporary assets are financed constitutes the firm's working capital financing policy. There are three working capital financing policies; Maturity Matching Aggressive and Conservative.

**i. Maturity Matching Policy**

Under this policy, the firm uses long term financing to finance permanent current assets and short term financing to finance temporary or variable current assets. This situation may not realize due to the uncertainty about the expected lives of

assets. Maturity matching policy lies in between the aggressive and conservative policies. There is neither high nor low level of current assets and current liabilities. So, there will be a low profitability in the company, while under this policy. Therefore, if the firm attempts to match assets and liability maturities, we call this a moderate (maturity matching or self-liquidating) working capital financial policy.

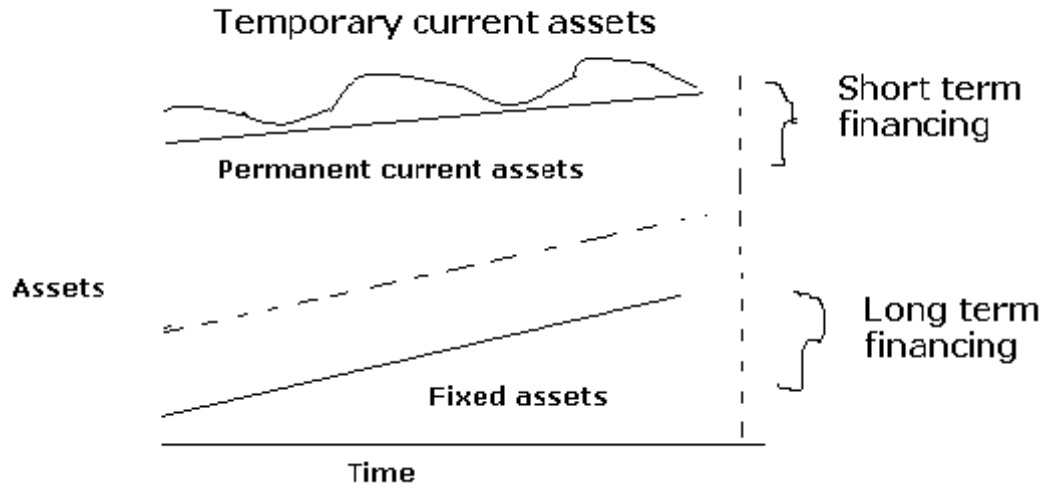
**Fig. 2.2**  
**Maturity Matching Policy**



**ii. Aggressive Policy**

Under this policy, the firm finances not only in temporary current assets but also finances in a part of the permanent current assets with short term financing and firm may even finance in a part of their fixed assets with long term financing. This policy relies heavily on short term financing, which makes the firm more risky. There will be complicated for the firm to raise the funds during the stringent credit period. Hence, there is higher risk, higher return and low liquidity position under this aggressive policy.

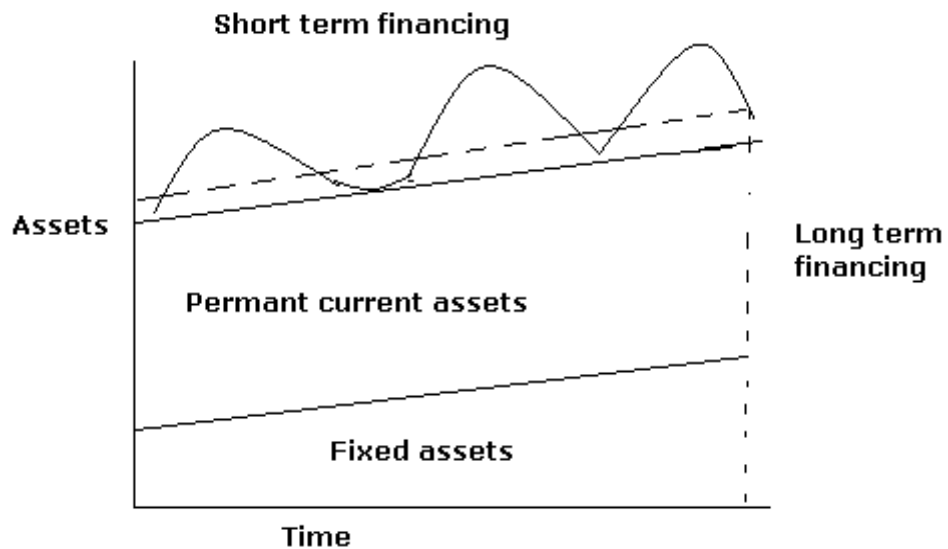
**Fig. 2.3**  
**Aggressive Policy**



**iii. Conservative Policy**

In the conservation policy, firm uses long term financing to finance not only in permanent and fixed current assets but also finances in a part of temporary current assets with long term financing. Conservative policy also meets some or all of the seasonal demands. It is comparatively less risk and earns lower return. So, this policy is also known as very safe financing policy.

**Fig. 2.4**  
**Conservative Policy**



### **2.1.5 Need for Working Capital**

Most of the firms aimed at maximizing the wealth of shareholders. The firm should earn sufficient return on its operation. The extent to which profit can be earned naturally depends upon the magnitude of sales 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 following motives:

#### **i. Transaction Motive**

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

#### **ii. 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 strikes, failure of important customers, unexpected slow down in collection of account receivable, cancellation of order for goods and some other unexpected emergency. Thus, the firm needs the working capital to meet any contingency in future.

#### **iii. Speculative Motive**

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

- ) Opportunity of profit making investment
- ) An opportunity of purchase raw material 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 working capital to meet the speculative motive.

### 2.1.6 Working Capital Cash Flow Cycle

The continuing flow from cash to supplier, to inventory, to account receivable and back into cash is known as working capital cash flow cycle/operating cycle. It continuously repeats. The cycle demonstrates the conversion of raw materials and labour to cash. Hence, this concept is also called cash conversion cycle model (*Weston and Brigham; 1984:405*). Cash conversion cycle model has been applied to more complex business and it is useful when analyzing the effectiveness of a firm's working capital management. There are following four factors of cash conversion cycle model.

#### i. Inventory Conversion Period (ICP)

The length of time required converting raw material into finished goods and then to sell these goods could be defined as inventory conversion period. This period indicated the efficiency of the firm in selling its product. Inventory turnover is calculated by dividing the cost of goods sold by average inventory. It can be shown as follows;

$$\text{Inventory Conversion Period} = 360/\text{Inventory Turnover}$$

$$\text{Inventory turnover} = \text{Sales}/\text{stock}$$

$$\text{Inventory Conversion Period} = \text{Inventory} * \text{Days in Years}/\text{Sales}$$

#### ii. Receivable Conversion Period (RCP)

Receivable conversion period indicates the number of day's debtor's turnover into cash. It analyses to determine collection of debtors and also the efficiency of collection effects. It is one of the important financial tools for the measurement of cash conversion cycle. Generally, the longer the collection period, the more efficient is the management of credit. RCP is also known as average collection periods or days sales outstanding (DSO). RCP can be calculated as follows;

$$\text{Receivable Turnover} = \text{Sales}/\text{Receivable}$$

$$\text{Receivable Conversion Period} = 360/\text{Receivable Turnover}$$

### iii. Payable Deferral Period (PDP)

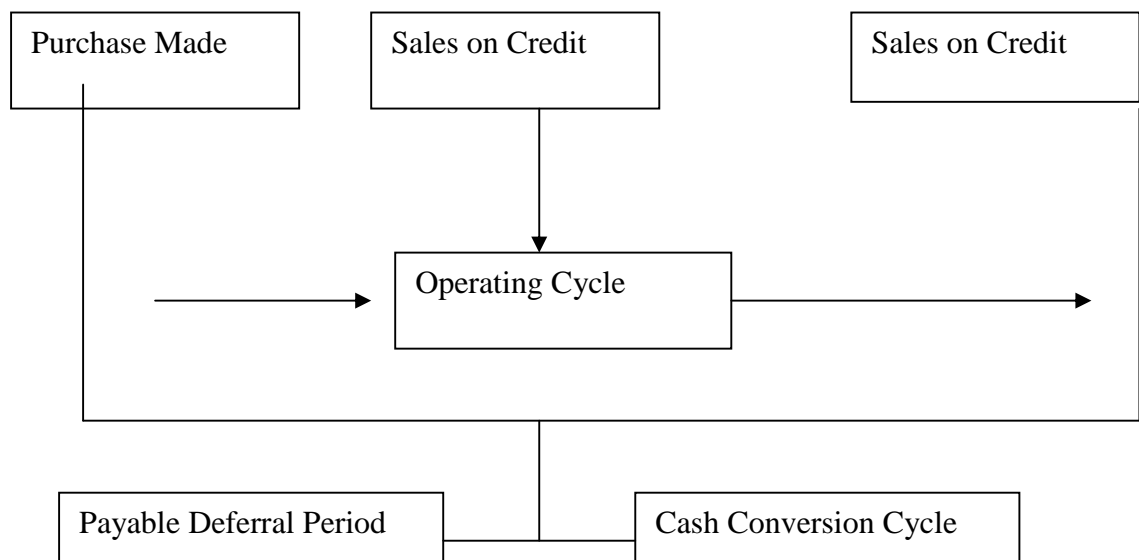
Time required to purchase raw material and labour and the payment of cash for them are called payable deferral period. It indicates the speed of creditors payable. A high payable conversion period is favorable for the company but too much higher period also can hamper the credit worthiness of the company. The payable deferral period can be calculated using following formula;

$$\text{Payable Deferral Period} = \text{Payable} \times \text{Days in Year} / \text{Purchase}$$

### iv. Cash Conversion Cycle

A cash conversion cycle reflects the net time interval in days actual cash expenditures of the firm on productive resources and ultimate recovery of cash. The following figure shows the cash conversion cycle for a firm.

**Fig. 2.5**  
**Operating Cycle of manufacturing firm**



As shown in above, once the purchase of raw material is made, the inventory conversion period determines the numbers of days it takes to produce and sell the product. The average collection period determines the average number of days it

takes to collection credit sales, the operating cycle which measures the numbers of days from purchase as to when cash is received.

$$\text{Operating cycle (OC)} = \text{ICP} + \text{RCP}$$

Because the raw materials typically are not paid for immediately we must also determine how long the firm defers its payment. The difference between the operating cycle and the deferral period is the cash conversion cycle.

$$\text{Cash conversion Cycle} = \text{Operating Cycle} - \text{Payable Deferral Period.}$$

The cash conversion cycle is a quick and convenient way to analyse the outgoing liquidity of the firm over time. We see that the cash conversion cycle approach may pick up information by other liquidity measures. The cycle shows how much of time need to collect cash.

### **2.1.7 Factors Determining to Working Capital**

- 1. Nature of Business:** A company's working capital requirements are basically related to the kind of business it conducts. Public utilities have the lower requirement for current assets because they have only cash sales and supply service, not products. In manufacturing companies stock in trade represent a large investment. Trading and financial firm require a large sum of money as working capital.
- 2. Size of Business:** The size of business also have an important bearing in determining working capital needs of a firm. A firm with large scale operation will need more working capital than a small firm.
- 3. Manufacturing Process:** If the manufacturing process in an industry entails a large period because of its complex character, more working capital is required to finance that process. An extended manufacturing time span means a larger tie-up of fund in inventories and higher amount of working capital.
- 4. Business Fluctuations:** Business variations affects the working capital requirement, especially the temporary working capital requirement of the

firm. In the boom period the sales will increase correspondingly, the firm's investment in inventories and book debts will also increase. This act of the firm will require further additions to working capital and vice-versa.

- 5. Turnover of Circulation Capital :** The speed with which the working capital completes its round i.e. conversion of cash into inventory of raw material and stores inventory of raw materials into inventory of finished goods, inventory of finished goods into book debts or account receivable and book debts into cash account plays an important role in judging the requirement of the working capital.
- 6. Growth and Expansion of Business :** A growing firm has to invest funds in fixed assets in order to sustain its growing production and sales. This will increase inventory in current assets to support enlarged scale of operation. It will require more working capital.
- 7. Volume of Sales :** A firm maintains the current assets because they are needed to support the operational activities which results in sales. As the volume of sales increase there is an increase in the investment of working capital, in the cost of operation, in inventories and in receivables. The increase in current assets will result in increase in the requirement of working capital.
- 8. Term of Purchase and Sales :** If the credit terms of purchase are more favorable and those of sales less liberal, less cash will be invested in inventory. A firm which can get credit easily on favorable conditions, will require less amount of working capital than the firm without such a facility.
- 9. Cash Requirement :** Cash is one of the current assets which is essential for the successful operation of the production cycle. Cash should be adequate and properly utilized. Adequate cash is also required to maintain good credit relations.
- 10. Profit Margin and Profit Appropriation:** The net profit is a source of working capital. A high net profit margin contributes towards the working capital pool. The requirement of working capital is also influenced by the



tax liabilities and the firm's policy to retain or distribute profit. A high tax liability will impose an additional strain on the working capital. Payment of dividend consumes cash resources and, therefore, reduces the firm's working capital to that extent.

- 11. Change in Technology :** Technological development related to the production process has a sharp impact on the need for working capital. Change in technology will need an additional amount of working capital due to fresh investment in new assets.
- 12. Inventory Turnover :** With a better inventory control a firm is able to reduce its working capital requirement. If the inventory turnover is high the working capital requirement will be low.
- 13. Other Factors:** Absence of co-ordination in production and distribution policies in a company leads to a high demand for working capital. The import policy of the government may also affect the requirement of the working capital for the companies as they have to arrange for funds for importing goods at specified times. Besides the above factors, the efficient management of the trade cycle and attitude of the management are also important. The impact of socio, political, economical, technological, natural, national, global, fiscal and monetary policies also have to be studied in specific cases for assessing the working capital needs. Perhaps a SWOT analysis may be helpful in this context. In short, the working capital requirement of an organization depends upon the factors known as the determinants of working capital.

#### **A to Z factors on Working Capital**

- a. Nature of business
- b. Manufacturing policies.
- c. Production process and change in technology.
- d. Terms of buying and conditions of sales
- e. Capital expenditure and investment decision
- f. Transportation bottleneck

- g. Lead time requirement
- h. Length of operating cycle
- i. Raw material requirements
- j. Inventory of machinery spares
- k. Semi-finished goods inventory
- l. Finished goods stock
- m. Supplier's credit
- n. Credit for Sales
- o. Total current assets
- p. Total current liabilities
- q. Market condition of supply and demands
- r. Growth of the business
- s. Business cycle fluctuation
- t. Seasonal demand
- u. Product life cycle
- v. Non bank short term borrowing
- w. Short term bank borrowing
- x. Share capital
- y. Reserve, internal accrual and taxes on profit
- z. Long term loan.

## **2.2 Review of Related Studies**

Some of the related studies on regarding working capital management are reviewed here under.

**Pradhan (2004)** carried out a study on management of working capital which related that most of the selected enterprises achieved a trade off between risk and return there by following neither an aggressive nor a conservative approach. Almost all the selected PEs had a positive net working capital and much of the growth in net working capital might however, be attributed to inflation as the forth in net working capital at deflated prices has been much lower. The liquidity measures showed a poor liquidity position in majority of NPEs. It has been

noticed that the enterprise had either negative cash flows or earning before tax or they had excessive net current debts, which could not be paid within a year. Of the current assets, which is an average, half of the total assets in PEs. The share of inventories is the largest followed by receivable and cash. There had been an improvement in utilization of current assets in the majority of PES. He also noticed that the adjustment speed of actual to desire balance had been observed as highest for cash followed by inventories. However the speed of adjustment was much slower in all these cases. The results were, therefore surprising as the adjustment of even cash holding was not immediate. Further more, the inclusion of capacity utilization in the models did not seem to have contributed much to the demand functions of working capital and its various components. Thus, capacity utilization as a significant variable affecting these demand functions was doubtful. This book, provides an extensive and comprehensive survey on the overall liquidity position, working capital policy, working capital utilization and demand functions of the current assets.

**Shrestha (2005)** carried out a study on portfolio behaviour of commercial banks in Nepal found out that total deposits have been major sources of fund for all the banks. Capital and reserve funds do not seem to have changed much over the year. The user of fund analysis shows that the resources of commercial banks are allocated in the liquid funds, investments on securities, loans and advances bills purchased and discounted. Among the portfolio, for Nepalese banks loan and advances share highest volume of the resources and the bills purchased and discounted the least over the year. The excess reserves of the commercial banks show unused resources. The cash resource exceeds much more than the required cash reserve.

Some of the journals and articles published by management experts in working capital management have been reviewed in this section.

**Poudel (2007)** carried out a study on which related to financial statement analysis : an approach to evaluate bank's performance described the necessity and importance of financial statement analysis to evaluate bank's performance.

Analysis of bank financial statement is different from other companies due to special nature of assets and liabilities structure of the banking industry. The bank's balance sheet is composed of financial claims a liability in the form of deposits and as assets in the form of loans but fixed asset account for a small portion of the total assets. The described the major balance sheet characteristics of commercial banks. Which are as follows.

Characteristics	Significance	Risk	Return
1) Few Fixed Assets	Low degree of operating leverage	Reduce	Reduce
2) Substantial amount of short term liabilities (Deposits)	To be liquid	Increase	Increase
3) Substantial amount of financial assets	High degree of operating leverage	Increase	Increase

At last, he added that analysis of financial statements can give a good insight into financial health and performance of a bank.

**Shrestha (2007)** carried out a study on which revealed on a working Capital management in public enterprises has considered ten selected PEs and studied working capital management in those PEs in his article. He has focused on the liquidity, turnover and profitability position of those enterprises. He found that four PEs had maintained adequate liquidity position, two had excessive and remaining four had failed to maintain describable liquidity position. On the turnover, four had a adequate turnover, one had high turnover and remaining five had not satisfactory turnover on net working capital. He had also found that out of ten PEs, Six PEs were operating at losses while only four were getting some percentage of profits. With reference to those findings he had brought certain policy issues such as lack of suitable financial management, deviation between liquidity and turnover of assets and inability to show positive relationship between turnover and return on net working capital.

**Acharya (2008)** carried out a study on which related on problems and implements in management of working capital in Nepalese enterprises described the two major problem i.e. operational problems and organizational problems regarding the working capital management in Nepalese PEs. The operational problems he found are listed in the current ratio 2:1 and slow turnover of inventory. Similarly, change in working capital in relation to fixed capital had very low impacts over the profitability, thin transmutation of capital employed to sales, absent of apathetic management information system, break even analysis, fund flow analysis and ratio analysis were either undone or ineffective for performance evaluation. Finally monitoring of the proper functioning of working capital management has never been considered a managerial job. In the second part, he has listed the organizational problems in the PEs. In the most of the PEs, there is lack of regular internal and external audit system as well as evaluation of financial results. Similarly, very few PEs have been able to their capital requirement, functioning of finance department is not satisfactory and some PEs are even facing the under utilization of capacity. To make an efficient use of fund for minimizing the risk of loss and to attain profit objective, he has made some suggestion.

**Mahat (2009)** carried out a study on which revealed the spontaneous sources of working capital management defined the three major sources of working capital i.e. equity financing, debt financing and spontaneous sources of financing, regarding the working capital management. Debt financing include short-term banking financing such as bank overdraft, cash credit, bills purchase and discounting, letter of credit etc. Whereas spontaneous sources of working capital include trade credit, provisions and accrued expenses. Working capital management is one of the important pillars of corporate finance. However, Nepalese industries are facing difficulty in their survival by the cause of rescission, which can bring best and worst in corporate finance such an environment should be efficient enough to cope with the possible worst happenings in future for working capital management. He has said that managing the working capital resources for a profit making industries are routine affairs of

just making payment and arranging collection of debtors. In contrast, the company in debt trouble, it is rather difficult to meet its working capital gap by way of debt financing, the company should have to be interest, which may cause to increase in the percentage of operating expenses to the turnover and depletion in the profits. Therefore, spontaneous sources of working capital will be a better source for working capital in order to improve its performance. Consequently, in a changed economic scenario, every company should realize that inability to manage working capital might lend them in a various circle that can be hard to get out from. It is indeed essential for industries to tighten their belts had checks their financial stability to face and stand in forth coming complete day.

**Shrestha (2003)** carried out a research which revealed that the overall picture of working capital of National Trading Limited. The current assets to total assets of NTL and STCL both are in fluctuating trend. The investment in current is high in both of the trading companies with respect to its total assets and net fixed assets. Cash and bank balance holds the highest portion followed by inventor in NTL whereas cash and bank balance holds the least portion in STCL and inventory hold the highest portion. The turnover position of the NTL and STCL are in fluctuating trend. The liquidity position of the STCL is satisfactory and favorable in comparison to the liquidity position of the NTL.

**Aryal (2005)** carried out a study on a case study on working capital management of Bank of Kathmandu Ltd. to evaluate the working capital position of bank of Kathmandu Ltd. During his study, he had basically used the secondary data and mainly financial tools are embodied for analyzing the working capital management of BOK. He had derived following major findings form his study. The working capital of BOKL has been increasing trend. The current ratio of the bank was quite fluctuating. The loan and advances to saving deposit ratio of the bank is in satisfactory position over the study period. The interest earned to total assets ratio of BOKL is not so much satisfactory it means the bank could not able to use its total assets properly to earned interest. The net profit to total assets ratio of the bank was fluctuating. It shows that the bank could not able to utilized its total assets to generate profit.

**Shrestha (2007)** carried out a research on a study on working capital management of Dairy Development Corporation to analyze the current assets and current liabilities and their impact and relationship to each other. During his study, he had basically used the secondary data and mainly financial tools are embodied for analyzing the working capital management of DDC. He had derived following major findings from his study. The corporation's investment in the form of working capital has been increasing and DDC followed the conservative working capital policy with respect current assets management. The average investment in current assets is lower with respect to net fixed assets during this study period and DDC has no clear vision about the investment current assets portion. Cash and bank balance holds the second largest portion of the current assets and has fluctuating trend. Other major components of current assets i.e. inventories and receivables are in fluctuating trend. The company does not follow credit sales policy. The company has been able to maintain its current ratio in an average 1.78:1 during the study period which is regarding satisfactory level. The gross and net profit margin in DDC shows that company is suffering from a heavy loss during the study period. The overall return position of DDC is negative, not in favorable condition. it is because of inefficient utilization of current assets, total assets and shareholders wealth.

**Bansal (2009)** carried out a research on a study on working capital management of commercial bank is to highlight and examine the management of working capital in standard chartered Bank Nepal Ltd. and Himalyan Bank Limited. During the study, she had used secondary data & used many financial tools analyzing the working capital management. The net working capital of both banks is positive. The liquidity position of both bank are increasing trend. It shows the satisfactory level of working capital. The major components of current assets of both bank are cash and bank balance, loan & advance and government securities. The trend value of interest earned to total assts ratio on banks are decreasing. In case of profitability position, both bank have constant level of growth in profitability during the study period.

**Yogi (2011)** carried out a study on a study on working capital management of Unilever Nepal Limited (ULN Ltd) to analyze the liquidity, composition of working capital, assets utilization and profitability position, to analyze of the optimal level of working capital, to analyze the current assets and current liability policy, to analyze the financing pattern of working capital, liquidity position, and profitability position and to examine the relationship between liquidity and profitability position. This study was conducted through basically secondary data. The data had been collected from annual reports and audited financial statements of the company submitted to Nepal Stock Exchange Company. The data has been directly extracted from the balance sheet and income statement of the company. The primary information has been collected through interview with the officials of ULN Ltd. Various Ratio analysis is used to analyses the data and Karl Pearson's coefficient of correlation 'r' is used to examine the relationship between liquidity position. The liquidity position of the company is fluctuation year by year. The proportion of current assets is affected by the sales. In other words the sales affected the management of current assets. The components of current assets and current liabilities are fluctuating in nature. The insignificant relationship between liquidity and profit margin implies that there is not trade of between liquidity and profitability.

### **2.3 Research Gap**

Some studies have selected various manufacturing companies for the research and some have concentrated in only one or two companies. The above mentioned studies in the context of Nepalese manufacturing companies were done in the last decades with respect to working capital management. Therefore, it is necessary to bring out a fresh study on working capital management of manufacturing companies to examine whether the findings of above studies are still valid or not. This study is based on different variables and tools using latest data (2005/06-2010/11). The researcher focuses only on working capital of selected companies. The researches use ratios, correlation coefficient, regression analysis and a new variable predicting power of ratio for analysis.



## **CHAPPTER-III**

### **RESEARCH METHODOLOGY**

Research methodology is a sequential procedure and collection scientific methods to be adopted in a systematic study. In other word research methodology describes the methods and process applied in the entire aspect of the study. It's a way to systematically solve the research problem. It may be understood as a science of study how research is done scientifically. In it we study the various steps that are generally adopted by a researcher in study his/her research problem along with the logic behind them (*Kothari; 1984:10*) research design, nature and sources of data collection of data procedure, data processing and statistical tools used etc are included in this chapter.

#### **3.1 Research Plan and Design**

Research design includes important procedure and techniques for guiding analyzing and evaluation the study. This study is based on descriptive and analytical research design, as it is based on survey and fact findings.

#### **3.2 Nature and Sources of Data**

The study is mainly based upon secondary data; the data relative to financial performance and directly obtained from concerned companies and the supplementary data and performance records of concerned companies, booklets, journals, articles and other organization are also used.

#### **3.3 Population and Samples**

This study is concerned with working capital management of Nepalese manufacturing companies listed in Nepal stock Exchange Limited. Out of them only two manufacturing companies have been taken for these studies, which are producing different products. It may help to know the contribution of different manufacturing companies in manufacturing sector. Data are collected for five years to analyze the working capital management of concerned manufacturing companies.

The samples of manufacturing companies selected are as follows:

1. Unilever Limited.
2. Nepal Lube Oil Limited

**a. Nepal Lever Limited (Unilever Nepal Ltd.)**

Unilever Nepal Limited Company was formed as subsidiary company of Hindustan Lever Limited. The factory's registered office is situated at Basamadi, VDC – 5 of Makawanpur District which is about six kilometer far from Hetauda Municipality and its corporate office is situated at Heritage Plaza, Kamaladi, Kathmandu, Nepal. Unilever Nepal Limited was established in 1994 as joint-venture company between Hindustan Lever Limited, India and Nepali Promoters under the company Act 2021 B.S. It is the subsidiary company of foreign investment and technology transformation. The main purpose of the company is to meet the everyday needs of people everywhere to anticipate the aspirations of consumers and customers and respond creativity and completely with branded products and services, which raise the quality of life.

The main products of the company are soaps, detergents, cosmetics toiletries, oleaginous, saponaceous, unguents and other chemical products. They are marked in and outside the country under the brand name of the products of Hindustan Lever Limited. The success of this industry will attract the foreign investment and technology transformation in this country and also encourage the private sector in the country.

ULN Ltd is the first subsidiary company of Hindustan Lever Ltd outside of India with holding 80% ownership and invested Rs 73.7 million in equity. The authorized capital of the company is Rs 30,00,00,000/- (Thirty Crores) and Issued and Paid-Up-Capital of Rs. 9,20,70,000/-, Percentage of share holding as follows(www.nepalstock.com)

### **Equity Holders**

<b>Name of Shareholders</b>	<b>% of share</b>
Hindustan Lever Ltd.	80%
Sibkrim Land and Ind. Co.Pvt.Ltd.	5%
Public Shareholders	15%

Hindustan Lever Ltd. holds the 80% share of ULN Ltd. which was formed as a subsidiary company of Unilever Group of Company of England, with 51% share. It was started nearly 1940 in India. The head office is situated in Mumbai, India.

#### **b. Nepal Lube Oil Limited (NLO Ltd)**

Nepal Lube Oil Limited is one of the major companies of Nepal which is affiliated by Gulf Oil International U. S. A. The license and formulation of this company is achieved from Gulf Oil International. The major production of this company is to produce various types of Lubricants so it does the work of mixing various components like base oil and chemicals to prepare different types of lubricant. Nepal Lube Oil Limited was established in 2041 B.S with the license and formulation of Gulf Oil Limited U.S.A. and investment of Nepalese promoters under the Company Act 2021 B.S. The main objective of the company is to avail various types of lubricants like super duty 30 and 40, super fleet 30 and 40, 2t oil, base oil, grease etc for the economic development of the country. Nepal Lube Ltd has share capital of Rs. 20.29 million ([www.nepalstock.com](http://www.nepalstock.com)). The corporate office of this company is at Jamsikhel, Lalitpur and the factory of the company is at Amlekhagunj, Bara district.

### **3.4 Data Collection Technique**

Secondary data are collected from relevant manufacturing companies. Concerned companies helped as a source of various books, journals and other published reports. Data are collected through annual report, minutes and memorandum of association relative website of concerned organization. Concept paper made by concerned organization, news letters, bulletin and brochure also helped in

collection data for the study. Similarly methods likes surfing in website is also used for the collection of data and information.

### **3.5 Data Processing Procedure**

This study is mainly based on the secondary data. Thus, after collection of financial statement, master sheet of financial data was prepared and necessary financial data have been extracted and tabulated as per the need of this study. In order to process the data, financial statement and other available information were reviewed. These data were grouped in different tables and charts according to their nature and analytical and statistical tools are used for analyzing quantitative data to reach true and sincere conclusion.

### **3.6 Validity and Reliability**

Validity is the extent to which a test measure that we actually wish to measure. Reliability is the degree to which measures are free from error and yield consistent results. Secondary data is collected form annual report, journals, and other published reports from respective manufacturing companies, so data are valid. Basic independent variables current assets and current liabilities are included, so it is reliable to some extent.

### **3.7 Method of Data analysis and interpretation**

The collected data through various instrument and sources have been edited, coded and processed analyzed and tabulated using simple financial and statistical methods major findings were made on the analysis and interpretation of data. The major data analysis tools used for the analysis and presentation of data are as follows.

#### **3.7.1 Financial Analysis Tools**

Financial ratios are useful indicators of a firm's performance and financial situation. Financial ratios are calculated to ascertain the financial condition of the firm. It is the relationship between financial variables contained in the financial statement. Most ratios can be used to analyze trends and to compare the firm's

financials position to the firms. In some cases, ratio analyze can be predict future bankruptcy. It helps the related parties to spot out the financial strength and weakness of the firm. The related parties may be creditors, long-term debt suppliers, investors and the company's management. It is the process of summarizing large quantity of financial data and making qualitative judgment about the firm's financial data and making qualitative judgment about the firm's financial performance. In the research study various financial tools are employed for the analysis. There are various ratios but in this study some selected ratios among them are used.

### **(a) Liquidity Ratio**

It is the most important part for the company. It shows the ability to the company to pay its current obligations. The Liquidity position of ULN Ltd and NLO Ltd are completed by analysis current and quick ratio.

#### **i) Current Ratio**

The current ratio is a ratio of the firm's total current assets to its total current liabilities. A high ratio shows an excessive amount of current assets and the firm is in liquidity position. A low ratio indicates that a firm may not be able to pay it's obligations. In general rules current ratio 2:1 is considered as acceptable of satisfactory. The current ratio can be calculated by:

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

#### **ii) Quick Ratio (Acid Test Ratio)**

The quick ratio of quick assets to current liabilities. The quick assets include all the current assets except inventories. Inventory is the least liquid asset. A high ratio indicates the firm has high liquid assets. Such as cash, bank balances and receivables. Similarly a low ratio indicates the possibilities of difficulties in the prompt payment of future bills. Generally, quick ratio of 1:1 of a firm is considered to be sound position.

$$QR = \frac{\text{Quick Assets}}{\text{Current Liabilities}}$$

### **b) Activity or Turnover/Receivable Turnover Ratio**

The activity ratio indicates the relationship between uses of assets in generation the sales. It traces out that how the firm managers the assets. It is related with measuring the efficiency in assets management as well as the effectiveness of the investment of resources in the business enterprises. With the help of this ratio, we can easily know whether the funds have been used effectively or not. The relationship between sales and various assets of the firm can be defined with the help of activity ratio.

#### **i) Debtors Turnover/Receivable Turnover Ratio**

The receivable turnover ratio is the ratio between the sizes of the firm's. Size of the uncollected bills from the customers and sales. The higher ratio indicates the fires low balance of receivable. Which means strict credit policy and aggressive collection procedures. The low ratio indicates the difficulty collecting money and having a large receivables balance. The receivable turnover can be calculated as:

$$\text{Debtors Turnover} = \frac{\text{Sales}}{\text{Debtors}}$$

#### **ii) Inventory Turnover Ratio**

The inventory turnover ratio shows how rapidly the inventory is turning into receivable through sales. The ratio shows the efficiency of business concerning in an inventory management. Inventory turnover ratio is calculated by the cost of goods sold dividend by average inventory. i.e.

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

or

$$\text{Inventory Turnover Ratio} = \frac{\text{Sales}}{\text{Closing Inventory}}$$

### **iii) Total Assets Turnover Ratio**

Total assets turnover ratio indicates how much total assets and fixed assets. The higher ratio indicates lower investment in assets to generate sales and vice-versa.

Total assets turnover ratio can be calculated as:

$$\text{Total Assets Turnover Ratio} = \frac{\text{Sales}}{\text{Total Assets}}$$

### **c) Profitability Ratio**

Most of firms aim to maximize profit. The profitability ratio is used to measure the operation performance of the company. The profitability position of the companies is analyzed with the help of following rates.

#### **i) Gross Profit Margin Ratio**

Gross profit margin ratio shows the percentage of profit after cost of production. High ratio indicates the company is able to produce the produce at low cost and lower ratio shows the higher cost of production.

$$\text{Gross Profit Margin} = \frac{\text{Gross Profit}}{\text{Sales}} \times 100$$

$$\text{Gross Profit} = \text{Sales} - \text{Cost of Goods Sold}$$

#### **ii) Net Profit Margin Ratio**

Net profit margin is calculated by divided the Net profit by sales. Net profit is obtained by deducting all the tax and operating expenses from gross profit. It shows the firms overall profit.

$$\text{Net Profit Margin} = \frac{\text{Net Profit}}{\text{Sales}} \times 100$$

#### **d) Leverage Ratio**

Leverage ratio or capital structure ratio are also known as long –term solvency ratio. Leverage ratios are used to measure the financial risk and to know that how far the firm is using its debt for the benefits of shareholders. Leverage ratio also reflects the proportion of debt in total financing. There are different leverage ratios. Which are given below:

### **i) Debt to Equity Ratio**

Debt to equity ratio shows proportion of debt and equity which is used to raise the funds. The firm raised its required funds from different sources. They can be borrowed of debt or issuing of shares.

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

### **3.7.2 Statistical Tools**

Statistical method is the mathematical techniques used to facilitate the analysis and interpretation of numerical data secured from groups of individuals or groups of observations from a single individual. In this research study some statistical tools are also used for analysis. Those tools are as follows.

#### **i. Karl Person's Coefficient of Correlation**

Correlation Coefficient is statistical tools for measure of the relative association between two variables series, it describes how much linear co-movement exists between two variables. Karl Person's measure, Known as persons correlation coefficient between two variables (series ) X & Y usually denoted by  $r(X, Y)$  or  $r_{xy}$  or simply  $r$  can be obtained as;

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

The value of correlation coefficient 'r' lies between -1 to +1

If  $r = 1$  there is perfect positive relationship

$r = -1$  there is perfect negative relationship

$r = 0$  there is no correlation at all

The closer the value of 'r' is 1, or -1, the closer the relationship between the variables and the closer 'r' is to 0, the less close relationship.



## ii. Trend Analysis

The straight line trend implies that irrespective of the seasonal & cyclical swings & irregular functions, the trend values increase or decrease by absolute amount per unit of time. It is computed as follows

$$Y = a + bx$$

Where,

$Y_c$  = Trend Values

$a$  = Y intercept or the computed trend figure of the Y variable, when  $X = 0$

$b$  = Slope of the trend line of the amount of change in Y variable that is associated with change in 1 unit in X variable.

$X$  = Variable that represent time i.e. time variable

Following two equations can be developed putting the above values in normal equation:

$$y = Na + b \quad x$$

$$xy = a \quad x + b \quad x^2$$

Since  $\sum x = 0$

$$a = \frac{\sum y}{n} \quad \& \quad b = \frac{\sum xy}{\sum x^2}$$

The constant 'a' is simply equal to the mean Y value & constant 'b' gives the rate of change.

## 3.8 Operations Definitions and Assumptions

**Current assets:** The resources of the business which can be converted into cash within a period of twelve months are classed current assets. It includes the assets such as cash in hand, cash at bank, closing stock debtor, bills receivable or accounts receivable, marketable securities, prepaid expenses, income receivables etc, that are acquired and are to be converted into cash in the ordinary course of business. Current assets again subdivided into two parts, liquid assets

and non-liquid assets. Liquid assets are those which can be converted into cash without appreciable loss eg. cash in hand, cash at bank, debtor, bills receivable etc. other assets which cannot be readily converted into cash or not without appreciable loss are called non-liquid assets eg. stock and prepared expenses.

**Current liabilities:** These are obligation of the business which are payable in the near future usually, within the next accounting period. Therefore, a liability which is expected to have been paid within one year form the date of the balance sheet is termed as current liability e.g. sundry creditors, bills payable, bank overdraft, outstanding expenses, short-term loan, income received in advance, provision for tax, etc.

## **CHAPTER-IV**

### **PRESENTATION AND ANALYSIS OF DATA**

In this chapter all the relevant data and information of ULN Ltd and NLO Ltd are presented and analyzed. All the data using various ratios along with correlation and trend of different variables related to working capital.

#### **4.1 Composition of Current Assets**

The resources of the business which can be converted into cash within a period of twelve months are classed current assets. It includes the assets such as cash in hand, cash at bank, closing stock debtor, bills receivable or accounts receivable, marketable securities, prepared expenses, income receivables etc, that are acquired and are to be converted into cash in the ordinary course of business. Current assets again subdivided into two parts, liquid assets and non-liquid assets. Liquid assets are those which can be converted into cash without appreciable loss eg. cash in hand, cash at bank, debtor, bills receivable etc. other assets which cannot be readily converted into cash or not without appreciable loss are called non-liquid assets eg. stock and prepared expenses.

A firm needs cash for various purposes such as purchase of raw materials, pay expenses. This is because of not perfect matching between cash and inflow and outflow. Cash may also be held to meet future expenses. The stock of raw material also is kept in order to ensure smooth production and to protect the risk of non available of raw materials. The efficient management of current assets is an integral part of overall financial management. So we are presenting the data of current assets ULN Ltd. NLO Ltd.

**Table 4.1: Composition of Current Assets of ULN Ltd****(Rs. In Million)**

<b>Particulars</b>	<b>063/64</b>	<b>%</b>	<b>064/65</b>	<b>%</b>	<b>065/66</b>	<b>%</b>	<b>066/67</b>	<b>%</b>	<b>067/68</b>	<b>%</b>	<b>Average</b>
Cash and Bank Balance	62.33	15.62	317.40	53.81	391.53	54.10	443.31	49.73	242.67	32.72	41.20
Sundry Debtors	32.16	8.06	64.78	10.98	97.10	13.41	157.72	17.69	138.32	18.65	13.76
Inventory	144.45	36.19	126.11	21.38	184.22	25.73	229.27	25.78	256.16	34.54	28.72
Miscellaneous C.A	160.19	40.13	81.60	13.83	51.44	7.10	60.62	6.80	104.45	14.08	16.39
<b>Total Current Assets</b>	<b>399.13</b>	<b>100</b>	<b>589.89</b>	<b>100</b>	<b>724.29</b>	<b>100</b>	<b>891.42</b>	<b>100</b>	<b>741.60</b>	<b>100</b>	

Source: Annual report of ULN Ltd.

The above table no 4.1 shows the composition of current assets and percentage composition of current assets for five fiscal year of ULN Ltd. The components of current assets are cash and bank balance, sundry debtors, inventory and miscellaneous current assets.

Cash and Bank, the next liquid assets hold the major portion of total current assets. In average it holds 41.20% of total current assets which is the highest in comparison with other components of current assets. During the study period, the percentage of Cash and Bank balance to the total current asset are fluctuated. Above table shows that the inventory holds the second major portion of the current assets.

The average amount of sundry debtors for the five years study is Rs. 98.02 (in million) and the proportion on total current assets is 13.76%. Sundry debtors hold the least proportion of the current assets in the fiscal year 063/64 i.e. 8.06%.

Miscellaneous current assets include other current assets except inventory sundry debtors, cash and bank balances. It contains prepaid expenses, advances to employees, deposits, investment in government banks and other current assets. The average percentage of miscellaneous current assets is 16.39%. The

proportion of miscellaneous current assets has been fluctuated from 40.13% in between 063/64 and 064/65.

**Table 4.2: Composition of Current Assets of NLO Ltd**

Particulars	Fiscal years										Average
	063/64	%	064/65	%	065/66	%	066/67	%	067/68	%	%
Cash and Bank Balance	1.32	1.41	2.29	1.86	0.70	0.73	2.91	2.64	3.18	2.44	1.82
Sundry Debtors	67.94	72.67	75.50	61.34	54.80	56.79	60.83	54.95	70.24	53.99	59.95
Inventory	19.27	20.61	30.57	24.84	31.60	32.75	36.39	3.07	38.26	29.41	28.10
Miscellaneous C.A	4.86	5.31	14.72	11.96	9.39	9.73	10.32	9.37	18.41	14.15	10.10
<b>Total Current Assets</b>	<b>93.49</b>	<b>100</b>	<b>123.08</b>	<b>100</b>	<b>96.49</b>	<b>100</b>	<b>110.15</b>	<b>100</b>	<b>130.09</b>	<b>100</b>	

Source: Annual report of NLO Ltd.

Table 4.2 demonstrate the composition of current assets and percentage composition of current assets for five fiscal year of NLO Ltd. Sundry debtors hold the major portion of total current assets. In average it holds 59.95% of total current assets which is the largest value in comparison to other component of current assets. In this year 063/64 sundry debtors holds the highest proportion of current assets which is 72.67%. The proportion of sundry debtors has been fluctuated in the entire period of five years.

In the above table shows, that the inventory holds the second major portion of the current assets. During the study period the portion of inventory to the total current assets fluctuated. The average percentage of inventory is 28.10%.

The cash and bank balance of NLO Ltd holds the lowest portion in composition to all other components of current assets. The average percentage is 1.82% of total current assets. It has been fluctuated entire during the year which is highest in 066/67 i.e. 3.18% and lowest is 065/66 i.e. 0.73%.

The average percentage of miscellaneous current assets is 10.10%. The proportion of the miscellaneous current assets has been fluctuated from 5.31% to 14.15% in between 063/64 to 067/68.

#### 4.1.1 Comparison of Cash and Bank Balance Percentage and Trend Analysis

As per calculation of cash and bank balance percentage value of constants 'a' and 'b' are as follows.

**Table 4.3: Calculation of Trend Value of Cash and Bank Balance to Current Assets**

Year	ULN Ltd. ( $Y_c = a+bx$ )	NLO Ltd. ( $Y_c =a+bx$ )
063/64	35.18	1.25
064/65	38.19	1.54
065/66	41.20	1.82
066/67	44.21	2.10
067/68	47.22	2.39
068/69	50.24	2.67
069/70	53.25	2.96
070/71	56.26	3.24

Source: Appendix II (1).

The average percentage of cash and bank balance of ULN Ltd is higher than that of NLO Ltd during the period. The rate of change of cash and bank balance percentage both are positive. It implies that both the companies have increasing trend. ULN Ltd has greater positive value which reveals rapid increasing rate of cash and bank balance percentage that NLO Ltd.

#### 4.1.2 Comparison of Sundry Debtors Percentage and Trend Analysis

As per the calculation of sundry debtors' percentage trend value of the constants 'a' and 'b' are as follows:

**Table 4.4: Trend Values of Sundry Debtors to Current Assets Ratio**

Year	ULN Ltd. ( $Y_c = a+bx$ )	NLO Ltd. ( $Y_c =a+bx$ )
063/64	8.18	68.70
064/65	10.97	64.33
065/66	13.76	59.95
066/67	16.55	55.56
067/68	19.34	51.20
068/69	22.13	46.83
069/70	24.92	42.45
070/71	27.71	38.08

Source: Appendix II (2).

The rate of change of percentage of sundry debtors is ULN Ltd is positive whereas in NLO Ltd is negative. Thus, negative 'b' implies that the percentage of sundry debtors in NLO Ltd is in decreasing trend whereas in ULN Ltd., positive b indicates increasing trend.

#### 4.1.3 Comparison of Inventory Percentage and Trend Analysis

Calculation of inventory percentage trends value of the constraints 'a' and 'b' are as follows:

**Table 4.5: Trend value of Inventory to Current Assets Ratio**

Year	ULN Ltd. ( $Y_c = a+bx$ )	NLO Ltd. ( $Y_c =a+bx$ )
063/64	28.50	22.87
064/65	28.61	25.49
065/66	28.72	28.10
066/67	28.83	30.72
067/68	28.94	33.33
068/69	29.05	35.95
069/70	29.16	38.56
070/71	29.27	41.18

Source: Appendix II (3).

The rate of change of percentage of inventory in ULN Ltd and NLO both are Positive. Thus, positive 'b' which implies that the percentage of inventory in ULN Ltd and NLO Ltd are in increasing trend.

#### **4.1.4 Comparison of Miscellaneous Current Assets Percentage and Trend Analysis**

Calculation of Miscellaneous C.A percentage trend from Appendix 1 (iv), the value of the constraint 'a' and 'b' are as follows:

**Table 4.6: Trend Value of Miscellaneous Assets to Current Assets Ratio**

<b>Year</b>	<b>ULN Ltd. (<math>Y_c = a+bx</math>)</b>	<b>NLO Ltd. (<math>Y_c =a+bx</math>)</b>
063/64	28.22	7.08
064/65	22.30	8.59
065/66	16.39	10.10
066/67	10.48	11.61
067/68	4.56	13.12
068/69	-1.35	14.63
069/70	-7.26	16.14
070/71	-13.18	17.65

Source: Appendix II (4).

The rate of change of percentage of Miscellaneous C.A in ULN Ltd is negative whereas in NLO is positive. Thus negative b which implies, that the percentage of Miscellaneous CA in ULN Ltd is decreasing trend but in NLO Ltd, positive Miscellaneous CA indicates increasing trend.

#### **4.2 Composition of Current Liabilities**

Current liabilities is defined as debt originally schedule for repayment within one year. It involves the liquidity and solvency of the firm. The major components of current liabilities include loan and advances, sundry creditors and miscellaneous current liabilities.



**Table 4.7: Composition of Current Liabilities of ULN Ltd**

Particulars	Fiscal Years										Average
	063/64	%	064/65	%	065/66	%	066/67	%	067/68	%	%
Loan and Advances	0	0	0	0	0	0	0	0	0	0	0
Sundry Creditors	85.70	38.39	240.92	56.49	329.35	60.58	364.25	41.30	353.31	47.60	48.87
Miscellaneous Current Liabilities	137.51	61.61	185.53	43.51	214.36	39.43	517.77	58.70	388.92	52.40	51.13
<b>Total Current Liabilities</b>	<b>223.21</b>	<b>100</b>	<b>426.45</b>	<b>100</b>	<b>543.71</b>	<b>100</b>	<b>882.02</b>	<b>100</b>	<b>742.23</b>	<b>100</b>	

Source: Annual report of ULN Ltd.

The current liabilities of ULN Ltd contain loans and advances, sundry creditors and Miscellaneous Current liabilities. The above table 4.7 shows the amount of different component of current liabilities held by ULN Ltd.

Sundry Creditors are the major component of current liabilities. The highest percentage of sundry creditors is 60.58% in F/Y 065/66 and lowest is 38.39% in F/Y 063/64. It holds the total highest major portion of total current liabilities. The average percentage of sundry creditors during the period is 48.87%.

The miscellaneous current liabilities contain the other current liabilities except loans and advances and sundry creditors. It contains highest major portion of the current liabilities in ULN Ltd during the period. It covered 51.13% of the total current liabilities. The highest percentage of Miscellaneous CL is 61.61% in F/Y 063/64 and lowest is 39.43% in F/Y 065/66.

**Table 4.8: Composition of Current Liabilities of NLO Ltd**

Particulars	Fiscal Years										Average %
	063/64	%	064/65	%	065/66	%	066/67	%	067/68	%	
Loan and Advances	24.22	32.39	46.76	39.62	21.43	28.16	38.36	43.89	45.32	42.89	37.39
Sundry Creditors	31.76	42.48	46.44	44.06	37.19	48.88	29.29	33.51	50.14	47.46	43.28
Miscellaneous Current Liabilities	18.79	25.13	17.20	16.32	17.47	21.45	19.75	22.60	10.20	9.65	19.03
<b>Total Current Liabilities</b>	<b>74.77</b>	<b>100</b>	<b>105.40</b>	<b>100</b>	<b>76.09</b>	<b>100</b>	<b>87.40</b>	<b>100</b>	<b>105.66</b>	<b>100</b>	

Source: Annual report of NLO Ltd.

Table 4.8 reveals the amount of different component of current liabilities holds by NLO Ltd. and percentage of proportion of different component to total current liabilities.

Sundry Creditors contains highest major portion of the current liabilities in NLO Ltd during the period. It covered 43.28% of the total current liabilities. The highest percentage of sundry creditor is 48.88% in F/Y 067/68 and lowest is 33.51% in F/Y 066/67.

Loan and advances has covered the second highest portion of the total current liabilities in NLO Ltd. during the study period. The average percentage of the loan and advances during the period is 37.39%.

Miscellaneous Current Liabilities holds least portion of the total current liabilities in NLO Ltd during the year. It is lowest 9.65% in the F/Y 067/68 and highest i.e. 25.13% in F/Y 063/64 and has been fluctuated from F/Y 063/64 to 067/68.

#### **4.2.1 Comparison of Loan and Advances Percentage and Trend Analysis**

Calculation of loan and advances percentage trend value of the constants 'a' and 'b' are as follows:

**Table 4.9: Trend Value of Loan and Advance to CL Ratio**

Year	ULN Ltd. ( $Y_c = a+bx$ )	NLO Ltd. ( $Y_c =a+bx$ )
063/64	0	32.34
064/65	0	34.86
065/66	0	37.39
066/67	0	39.92
067/68	0	42.44
068/69	0	44.97
069/70	0	47.50
070/71	0	50.02

Source: Appendix II (5).

The rate of change of percentage of loan and advances in ULN Ltd is Zero. Whereas in NLO Ltd., it is positive. Thus NLO Ltd loan and advances implies 'b' position which indicates in increasing trend.

#### 4.2.2 Comparison of Sundry Creditors Percentage and Trend Analysis

From the calculation of sundry creditors percentage trend values of constants 'a' and 'b' are as follows.

**Table 4.10: Trend Values of Sundry Creditors to Current Liabilities Ratio**

Year	ULN Ltd. ( $Y_c = a+bx$ )	NLO Ltd. ( $Y_c =a+bx$ )
063/64	48.22	43.40
064/65	48.55	43.34
065/66	48.87	43.28
066/67	49.19	43.22
067/68	49.52	43.16
068/69	49.84	43.10
069/70	50.16	43.04
070/71	50.49	42.99

Source: Appendix II (6).

The rate of change of percentage of sundry creditors in ULN Ltd is positive whereas in NLO Ltd. is negative. Thus negative 'b' implies that the percentage of sundry creditors in NLO Ltd is decreasing trend but in ULN Ltd. positive sundry creditors indicates in increasing trend.

#### **4.2.3 Comparison of Miscellaneous Current Liabilities Percentage and Trend Analysis**

From the calculation of miscellaneous current liabilities percentage trend values of constants 'a' and 'b' are as follows.

**Table 4.11: Trend Value of Miscellaneous Liabilities to Current Liabilities**

<b>Year</b>	<b>ULN Ltd. (<math>Y_c = a+bx</math>)</b>	<b>NLO Ltd. (<math>Y_c =a+bx</math>)</b>
063/64	51.776	23.97
064/65	51.453	21.50
065/66	51.13	19.03
066/67	50.807	16.56
067/68	50.484	14.09
068/69	50.161	11.63
069/70	49.838	9.16
070/71	49.515	6.69

Source: Appendix II (7).

The rate of change of percentage of miscellaneous current liabilities in ULN Ltd and NLO Ltd both are negative. Thus, negative 'b' implies that the percentage of miscellaneous current liabilities in ULN Ltd and NLO Ltd are decreasing trend.

#### **4.2.4 Comparison of Percentage of Current Assets on Total Assets**

Current assets to total assets ratio shows the proportion of current assets to total assets. Total assets contain sum of current assets and sum of fixed assets. If the firm increases the proportion of current assets, there is the high probability of return as well as risk and vice-versa. The table given below represents the percentage of current assets on total assets of two related companies.

**Table 4.12: Proportion of Current Assets to Total Assets of ULN Ltd****In million**

<b>Year</b>	<b>Current Assets</b>	<b>Total Assets</b>	<b>CA/TA*100</b>
063/64	399.13	571.34	69.86%
064/65	589.89	784.80	75.16%
065/66	724.29	939.71	77.07%
066/67	891.42	1019.19	87.46%
067/68	741.60	1046.91	70.84%
Average			76.08%

Source: Annual report of NLO Ltd.

**Table 4.13: Proportion of Current Assets to Total Assets of NLO Ltd****(In million)**

<b>Year</b>	<b>Current Assets</b>	<b>Total Assets</b>	<b>CA/TA*100</b>
063/64	93.49	111.83	83.60%
064/65	123.08	143.33	85.87%
065/66	96.48	115.09	83.83%
066/67	110.15	127.31	86.52%
067/68	130.09	145.41	89.46%
Average			85.86%

Source: Annual report of NLO Ltd.

Above table reveals the proportion of current assets to total assets. Proportion of current assets gradually increases from 69.86 to 87.46. This is because of increasing trend of inventories, debtors and cash.

The increasing proportion of current assets in the observed fiscal years shows that the holding on inventories, debtors and cash is in increasing trend. In an average there is 76.08% sharing of current assets to total assets during the period.

In the above table 4.13 the proportion of current assets are in fluctuating during the period. In an average the sharing of current assets to total assets in NLO Ltd

is 85.86% during the period. The amount of current asset and total assets is higher in ULN Ltd. in comparison to NLO.

### 4.3 Ratio Analysis

Ratio analysis is an essential tool of the financial analysis which helps to identify financial strengths and weakness of a company. Liquidity, activity, leverage and profitability are the main ratios:

#### 4.3.1 Liquidity Position

Liquidity ratio measures the ability to pay its debt with in a year. It involves the relationship between current assets and current liabilities. If a firm has sufficient net working capital (The excess of CA over CL), it seems to have sufficient liquidity. Liquidity position of ULN Ltd. and NLO Ltd is analyzed with the help of the following ratio:

##### i. Current Ratio

Current ratio shows the liquidity position of the firm. It measures the short term solvency of the firm in gross term. The current assets of ULN Ltd and ULO Ltd include inventory, sundry debtors, cash and bank balance which can be converted into cash with in one year. Current liabilities consists sundry creditors, short-term loan, received in advance, which has to be paid within one year. We use current ratio to calculate the solvency position of ULN Ltd.

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

Following table shows the current ratio to compare the working capital management of ULN Ltd and NLO Ltd.

**Table 4.14: Current Ratio**

Fiscal Year	ULN Ltd			NLO Ltd		
	CA	CL	Ratio	CA	CL	Ratio
063/64	399.13	223.21	1.79	93.49	74.77	1.25
064/65	589.89	426.45	1.38	123.08	105.40	1.17
065/66	724.24	593.71	1.33	96.48	76.09	1.27
066/67	891.41	882.02	1.01	110.15	87.40	1.26
067/68	741.60	742.23	0.99	130.09	105.66	1.23
Average			1.30			1.23

Source: Annual report of ULN Ltd and NLO Ltd.

Current ratio can be calculated by dividing the current assets and current liabilities. Current ratio indicates the capabilities of paying its current liabilities. The general acceptable current ratio is 2:1. It means the firm should hold minimum 200 % of the current assets to its current liabilities. The highest current ratio of ULN Ltd is 1.79 in F/Y 063/64 and lowest is 0.99 in F/Y 067/68. Same way the highest current ratio of NLO Ltd is 1.27 in F/Y 065/66 and lowest is 1.17 in F/Y 063/64. The average current ratio of ULN Ltd and NLO Ltd is 1.30 and 1.23 respectively.

The average current ratio of ULN Ltd is higher than that of NLO Ltd which seems that the firm is in general considerable level. The value of constants 'a' and 'b' are as follows:

**Table 4.15: Trend Value of Current Ratio**

Year	ULN Ltd. ( $Y_c = a+bx$ )	NLO Ltd. ( $Y_c = a+bx$ )
063/64	1.69	1.23
064/65	1.50	1.24
065/66	1.30	1.24
066/67	1.10	1.25
067/68	0.91	1.25
068/69	0.71	1.26
069/70	0.51	1.26
070/71	0.32	1.27

Source: Appendix II (8).

The rate of change of 'b' is positive in NLO Ltd and negative in ULN Ltd which indicates that in ULN Ltd. current ratio is in decreasing trend but in NLO Ltd current ratio is in increasing trend

## ii. Quick Ratio

Quick assets include the current assets except inventory. Inventory is a less liquid asset, because it takes a time to convert in cash. An asset is liquid if it can be converted into cash immediately or reasonably without a less of value of cash.

Quick ratio measures actual liquidity position of firm. Quick ratio can be found out by dividing the total of quick assets by total current liabilities.

$$\text{Quick Ratio} = \text{Quick Assets} / \text{Current Liabilities}$$

Following table shows the quick ratio of ULN Ltd and NLO Ltd.

**Table 4.16: Quick Ratio**

<b>Fiscal Year</b>	<b>ULN Ltd</b>			<b>NLO Ltd</b>		
	<b>QA</b>	<b>CL</b>	<b>Ratio</b>	<b>QA</b>	<b>CL</b>	<b>Ratio</b>
063/64	254.69	223.21	1.14	74.22	74.77	0.99
064/65	463.77	426.45	1.09	92.50	105.40	0.88
065/66	540.02	543.71	0.99	64.88	76.09	0.85
066/67	661.64	882.02	0.75	73.76	87.40	0.84
067/68	485.44	742.23	0.65	91.83	105.66	0.87
<b>Average</b>			<b>0.92</b>			<b>0.88</b>

Source: Annual report of ULN Ltd and NLO Ltd.

The quick ratio of 1:1 of a firm is considered as good position. The quick ratio of ULN Ltd is fluctuating for the entire period. The highest quick ratio of ULN Ltd. is 1.14 in F/Y 063/64 and lowest is 0.65 in F/Y 067/68. Same way the highest quick ratio of NLO Ltd is 0.99 in F/Y 063/64 and lowest is 0.84 in F/Y 066/67. The average quick ratio of ULN Ltd and NLO Ltd. is 0.92 and 0.88 respectively. The average quick ratio of ULN Ltd. is higher than that of NLO Ltd. The value of constants 'a' and 'b' are as follows:



**Table 4.17: Trend Value of Quick Ratio**

<b>Year</b>	<b>ULN Ltd. (<math>Y_c = a+bx</math>)</b>	<b>NLO Ltd. (<math>Y_c =a+bx</math>)</b>
063/64	1.18	0.95
064/65	1.05	0.92
065/66	0.92	0.89
066/67	0.79	0.86
067/68	0.66	0.83
068/69	0.52	0.81
069/70	0.39	0.78
070/71	0.26	0.75

Source: Appendix II (9).

The rate of change of percentage of quick ratio in ULN Ltd and NLO Ltd both are negative. Thus, negative 'b' which implies that the percentage of quick ratio in ULN Ltd and NLO Ltd are decreasing trend.

#### **4.3.2 Turnover Ratio**

The activity ratio measures how efficiently the firm is managing its assets. If assets are too low, profitable sale may be lost.

##### **a) Debtors Turnover/Receivable Turnover Ratio**

Accounts receivable is the major component of current assets. It also plays a vital role to determine the liquidity position of the company. The higher turnover ratio shows the higher degree of liquidity of receivable and vice versa. Similarly, Days sales outstanding indicate the length of time to receive the cash after credit sales. All sales are assumed to be credit sales for the purpose of the calculation of receivable turnover and DSO. Normally company grants 30 days credit sales.

**Table 4.18: Calculation of Receivable Turnover and Days Sales Outstanding of ULN Ltd and NLO Ltd**

**In million**

Fiscal Year	UNL Ltd			NLO Ltd		
	Sales	Account Receivable	DSO = Days in year*AR/Sales	Sales	Account Receivable	DSO = Days in Year*AR/Sales
063/64	1236.05	32.16	9	136	67.94	181
064/65	1244.73	64.77	19	119.15	75.50	230
065/66	1524.90	97.06	23	84.71	54.80	236
066/67	1481.56	157.72	38	118.10	60.83	188
067/68	1469.68	138.32	34	148.75	70.24	172
Average			25			201

Source: Annual report of ULN Ltd and NLO Ltd

The table shows the receivable turnover and days outstanding of ULN Ltd and NLO Ltd. Receivable turnover ratios are fluctuating in the entire period of year. The highest receivable ratio of ULN is 38.43 in F/Y 063/64 which has 9 days sales outstanding. Similarly, the lowest receivable ratio is 9 in F/Y 066/67 which has 38 DSO. The average receivable turnover ratio for the five years of ULN Ltd is 18.

The table shows the receivable turnover and day's sales outstanding of NLO Ltd. It has also fluctuating to the entire period of time. The higher receivable ratio is 2.11 in F/Y 067/68 which has 172 days sales outstanding. Similarly the lowest receivable ratio is 1.54 in F/Y 065/66 has 236 days sales outstanding. The average receivable turnover ratio of NLO Ltd is 1.84.

The D. S. O. period of ULN Ltd is lower than NLO Ltd. lesser the D.S.O. indicated that quick collection of receivables from the debtors. The above table shows that ULN Ltd is more capable in collecting receivables from the debtors in comparison to NLO Ltd.

## b) Inventory Turnover Ratio

Inventory turnover ratio shows the relationship between the sales and inventory. It also shows the efficiency of inventory management. A high inventory turnover ratio shows the optimum utilization of inventory. A low inventory turnover may be due to a variety of reasons like poor merchandise, overvaluation of closing stock, a large stock of unsolvable goods over buying and anticipated future increase in sales etc.

**Table 4.19: Calculation of inventory Turnover Ratio of ULN Ltd and NLO Ltd**

**In million**

<b>Fiscal Year</b>	<b>ULN Ltd</b>			<b>NLO Ltd</b>		
	<b>Sales</b>	<b>Inventory</b>	<b>Sales/Inv.</b>	<b>Sales</b>	<b>Inventory</b>	<b>Sales/Inv.</b>
063/64	1236.05	144.45	8.56	136.00	19.27	7.06
064/65	1244.73	126.11	9.87	119.15	30.57	3.90
065/66	1524.90	184.22	8.28	84.71	31.60	2.68
066/67	1481.86	229.97	6.45	118.40	36.39	3.25
067/68	1469.68	256.16	5.74	148.75	38.26	3.89
<b>Average</b>			<b>7.78</b>			<b>4.15</b>

Source: Annual report of ULN Ltd and NLO Ltd.

From the above table the inventory turnover ratio of ULN Ltd increases up to F/Y 064/65 and decreases till F/Y 067/68. The highest inventory turnover ratio is 9.87 in F/Y 0064/65 which indicates that from kept the low inventory and the lowest inventory turnover ratio is 5.74 in F/Y 067/68 which indicates the from kept high inventory which low sales. ULN Ltd holds the higher portion of raw materials in inventory. So it has less turnover time in practical use.

The inventory turnover ratio of NLO Ltd. varies for 2.68 to 7.06 during there period. The inventory turnover ratio of ULN Ltd is higher than NLO Ltd during the period of study. ULN produces wide range of products due to its nature and size of business that fulfill the various needs and requirement of the customers.

So, it has higher amount of net sales and closing stock. The higher average turnover ratio of ULN Ltd i.e. 7.78 indicates that it has better inventory management than NLO Ltd i.e. 4.15 during the period of study.

### 4.3.3 Leverage Ratio

Leverage ratio or capital structure ratio is also known as long- term solvency ratio. Leverage ratios are used to measure the financial risk and to know that how far the firm in using it's debts for the benefits of shareholder. The firm collects it's required fund by issuing share or by from long-term debt as well as short term debt. Debt refers the funds that have been collected from the investors by paying regular interest. If the firms issue the equity shares it does not have to pay regular interest. The debt management ratio affects the risk and return of the company. So, the firm should manage the proportion of debt and equity properly.

#### a. Short-term Financing to Total Financing Ratio

This ratio is computed to find their relation between STF and TF of ULN Ltd and NLO Ltd. It is calculated by dividing STF/TF

**Table 4.20: Short –Term Financing to Total Financing Ratio of ULN Ltd and NLO Ltd**

**In million**

Fiscal Year	ULN Ltd			NLO Ltd		
	STF	TF	STF/TF*100	STF	TF	STF/TF*100
063/64	223.21	315.28	70.80	74.77	95.06	78.66
064/65	426.45	518.52	82.24	105.40	125.69	83.86
065/66	543.71	638.78	85.52	76.09	96.38	78.95
066/67	882.02	974.09	90.55	87.40	107.69	81.16
067/68	742.23	834.30	88.96	105.66	125.95	83.89
<b>Average</b>			<b>83.61</b>			<b>81.30</b>

Source: Annual report of ULN Ltd and NLO Ltd

The above table shows the S.T.F ratio of ULN Ltd and NLO Ltd for the five years. The STF to TF ratio of ULN Ltd is in increasing trend. The highest STF to

TF ratios of ULN Ltd is 90.55 % in F/Y 067/68 and the lowest is 70.80% in F/Y 063/64. The average STF/TF ratio of ULN Ltd is 83.61%. Similarly, the STF/TF ratio of NLO Ltd is in increasing trend. The highest STF/TF ratio of NLO Ltd is 83.89% in F/Y 067/68 and lowest is 78.68% in F/Y 063/64. The average STF/TF ratio of NLO Ltd is 81.30% the average STF/TF ratio of ULN Ltd is higher than NLO Ltd.

#### **4.4 Statistical Tools**

##### **4.4.1 Coefficient of Correlation Analysis**

Correlation analysis is the relationship between dependent variables so it is called constant variable also. Correlation is denoted by 'r' and ranges from +1.0 indicating perfect positive correlation to -1.0, indicating perfect negative perfect correlation. If the correlation coefficient is zero, then the factors are independent or un-correlated.

In this chapter, correlation between deposit and total investment, deposit and loan and advances and outside assets and net profit have been calculated. Then results have analyzed and interpreted and then significance of correlation has been tested using Karl Pearson's correlation of co-efficient.

##### **Interpretation of Correlation Co-efficient**

- ) It lies always between +1 to -1.
- ) When  $r = +1$ , there is perfect positive correlation.
- ) When  $r = -1$ , there is perfect negative correlation.
- ) When  $r = 0$ , there is no correlation.
- ) When  $r$  lies between 0.7 to 0.999, (-0.7 to -0.999) there is a high degree of positive or negative correlation.
- ) When  $r$  lies between 0.5 to 0.6999, there is moderate degree of correlation
- ) When  $r$  is less than 0.5, there is a low degree of correlation

##### **Probable Error**

If  $r < 6$  P.E, then the value of 'r' is not significant.

If  $r > 6$  P.E, then the value of 'r' is definitely significant.

If the other situations happen, nothing can be concluded with certainty.

**i) Correlation Between Net Profit and Net Working Capital**

Coefficient of correlation between net Profit and net working capital measures the degree of relationship between these two variables. Here net profit is taken as independent variables (x) and the variable dependent on net Profit is net working capital, which is denoted by (y). The purpose of calculating 'r' is to judge whether net profit are significantly mobilized as net working capital or not.

**i) Correlation Between Net Profit and Net Working Capital**

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The following table shows the value of 'r',  $r^2$ , P.E & 6P.E. of ULN and NLO during the study period.

**Table 4.21: Statement showing Correlation between Net Profit and Net Working Capital**

	<b>r</b>	<b>r<sup>2</sup></b>	<b>P.E.</b>	<b>6 P.E.</b>
ULN	-0.8625	0.7439	0.0773	0.4635
NLO	-0.7001	0.4902	0.1538	0.9228

Source: Appendix No. 2 ( i & ii)

The coefficient of correlation 'r' between net profit and net working capital in case of ULN is -0.8625, which indicates a negative correlation between net profit and net working capital. Coefficient of determination ( $r^2$ ) is 0.7439. This means 74.39% of variation of the dependent variable has been explained by independent variable. The value of 'r' i.e. -0.8625 is also lesser than six times P.E. This states that there exists insignificant relationship between net profit and net working capital.

The coefficient of correlation 'r' between net profit and net working capital in case of NLO is -0.7001, which indicates a negative relationship between the two variables. The coefficient of determination ( $r^2$ ) is 0.4902. This indicates that 49.02% of the variation of the dependent variable has been explained by independent variable. Which further states that there is no significant relationship between net profit and net working capital.

In conclusion, it can be said that both the companies show insignificant relationship between net profit and net working capital. It implies that increase in net profit leads to decrease in W.C. and vice-versa.

### ii) Correlation between Net Sales and Net Working Capital

Coefficient of correlation between net sales and net working capital measures the degree of relationship between these two variables. Here net sales are taken as independent variable (x) and the variable dependent on net sales is net working capital, which is denoted by (y). The purpose of calculating 'r' is to judge whether net sales are significantly mobilized as net working capital or not.

The following table shows the value of 'r',  $r^2$ , P.E.& 6P.E. of ULN and NLO during the study Period.

**Table 4.22: Statement Showing Correlation between Net Sales and Net Working Capital**

	r	$r^2$	P.E.	6 P.E.
ULN	-0.5101	0.26.2	0.2232	1.3392
NLO	0.3285	0.1079	0.2691	1.6146

Sources: Appendix No. 2 (iii & iv)

The coefficient of correlation 'r' net sales net working capital in case of ULN is -0.5101, which indicates a negative correlation between net sales and net working capital. Coefficient of determination ( $r^2$ ) is 0.2602. This means 26.02% of variation of the dependent variable has been explained by independent variable. The value of 'r' i.e. -0.5101 is also lesser than six times P.E. This states that there exists insignificant relationship between net sales and net working capital. It implies that increase net profit in leads to decrease in W.C. and vice-versa.

The coefficient of correlation 'r' between net sales and net working capital in case of NLO is 0.3285, which indicates a positive relationship between the two variables. The coefficient of determination ( $r^2$ ) is 0.1079. This indicates that 10.79% of the variation of the dependent variable has been explained by independent variable. Which further states that there is no significant relationship between net sales and net working capital. Change in net working capital brings positive change in net sales in NLO Ltd during the Period of study. In conclusion, it can be said that both the companies show insignificant relationship between net sales and net working capital.

#### **4.5 Major Findings of the Study**

Working capital management plays the vital role in the success and failure of an organization. To study the working capital management of ULN Ltd and NLO Ltd, Primary as well as secondary data has been collected and analyzed by using various statistical tools. The major findings of the study have been present as below:

- ) The major components of current assets is ULN Ltd and NLO Ltd are cash and bank balance sundry debtors, inventory and miscellaneous current assets. In ULN Ltd cash and bank balance holds the higher proportion than other component which has average percent of 41.20.
- ) As per the trend analysis the rate of change of 'b' loan and advances in both ULN Ltd and N.L.O Ltd and NLO Ltd. Similarly the rate of change 'b' of sundry debtors in NLO Ltd is negative where as in ULN Ltd it is positive which indicates that increasing rate of sundry debtors in ULN Ltd is positive which indicates that increasing rate of sundry debtors in ULN Ltd but it is decreasing in NLO Ltd. Same as the rate of change 'b' inventory percentage in ULN Ltd and NLO Ltd is positive value which shows increasing rate of inventory in ULN Ltd and NLO Ltd. Similarly, the rate of change of percentage of Miscellaneous C.A in ULN Ltd is negative whereas in NLO Ltd is positive. Thus negative 'b' which implies,



that the percentage of Miscellaneous C.A implies 'b' position which indicates in indicates in increasing trend.

- ) The major components of current liabilities in ULN Ltd and NLO Ltd are loan and advances, sundry creditors and miscellaneous current liabilities. Miscellaneous current liabilities hold the major proportion of total current liabilities in ULN Ltd.
- ) As on the trend analysis the rate of change of 'b' loan and advances in both ULN Ltd and NLO Ltd is positive. It implies that increasing rate of loan and advance in both ULN Ltd and NLO Ltd. Similarly, the rate of change 'b' of sundry creditors in NLO Ltd and NLO Ltd. is negative where as in ULN Ltd it is positive which indicates that increasing rate of sundry creditors in ULN Ltd but it is decreasing in NLO Ltd. Same as the rate of change 'b' miscellaneous current liabilities percentage in ULN Ltd and NLO Ltd is negative value which shows decreasing rate of miscellaneous current liabilities in ULN Ltd and NLO Ltd.
- ) The average CA to TA of ULN Ltd is 76.08% whereas in NLO Ltd it is 85.86%. The average CA to TA ratio of NLO Ltd is higher than ULN Ltd.
- ) The average current ratio of ULN Ltd is 1.30 where as the average current ratio of NLO Ltd is 1.23 times. The general acceptable current ratio is 2:1. So the current ratio of both the companies are not satisfactory i.e. both the companies have more current liabilities than current assets.
- ) So on the trend analysis the rate of change of 'b' current ratio is positive in NLO Ltd where as it is negative in ULN Ltd ULN Ltd which indicates that there is increasing trend in NLO Ltd and decreasing trend in ULN Ltd.
- ) The average quick ratio of NLO Ltd 0.88. The average quick ratio of NLO Ltd is Lower than ULN Ltd.
- ) The trend analysis the rate of change of 'b' QR is negative is in both ULN Ltd and NLO Ltd. So, it implies there is decreasing trend in both ULN Ltd and NLO Ltd.

- ) The average receivable turnover ratio of ULN Ltd is 18.68 times. Same as the NLO Ltd is 1.84 times. The days sales outstanding of NLO Ltd is higher than that of ULN Ltd which average of NLO Ltd is 201 days and ULN Ltd is 25 days.
- ) The average inventory ratio of ULN Ltd is higher than that of NLO Ltd i.e. 7.78 and 4.15 respectively.
- ) Leverage ratios are calculated to examine the long term solvency of the firm. The average STF to TF ratio of ULN Ltd and NLO Ltd i.e. 4.43 times. The average STF to TF ratio of ULN Ltd and NLO Ltd are 83.61 and 81.30 respectively. It indicates that ULN Ltd has aggressive policy in financing its current assets than that of NLO Ltd during the period of study.
- ) The coefficient of correlation measures the degree of relationship between the different variables i.e. net profit and networking capital. The coefficient of correlation of ULN Ltd is -0.8625 and NLO is -0.7001 which indicates a high degree of negative correlation between net profit and networking capital. It can be said that both the companies show insignificant relationship between net profit and net working capital. It implies that increase in net profit leads to decrease in W. C. and vice-versa.
- ) The coefficient of correlation between net sales and net WC of ULN Ltd & NLO Ltd are -0.5101 and 0.3285 respectively. It implies that there is negative relationship in ULN Ltd and positive relationship and NLO Ltd between the two variables. The 6 PE is greater their 'r' so in ULN Ltd and NLO Ltd net sales is increase then there is decrease in WC.

## **CHAPTER-V**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

This chapter is an accomplished specific and indicative enclose which contains summary and conclusion of finding and recommendations. Brief introduction to all chapters of the study and genuine information of the present situation under the topic of the study is defined on summary. Conclusion is analysis of applicable data by using various financial and statistical tools, which presents strengths, weakness of the manufacturing companies. And suggestions are obtainable in recommendation, which is arranged on the based from finding and conclusions.

#### **5.1 Summary**

Working capital is the part of the capital of a company that is employed in its trading operations. Working capital management is concerned with managing both current assets (CA) and current liabilities (CL) and the interrelationships between them. Working capital management is the crucial aspect of financial management. The success or failure of any business organization heavily depends upon the sort of efficiency in its working capital management. Working capital is a crucial capital, which is compared as lifeblood of the human beings for the organization. In most enterprises, the management of working capital have been misunderstood as the management of money rather that it's efficient utilization. If a firm wants to maintain sound financial position, it should maintain optimal level of working capital. Determining the optimal level of working capital is the crux of the problem of every business organization. It is strongly related to the trade off between risk and return.

Manager's still focuses their attention on the procurement aspect of working capital but not on the efficient utilization of funds defined in terms of working capital. There are several indicators of working capital so basically this study has tried to find out the issue of working capital management of Unilever Nepal Ltd and Nepal Lube Oil Ltd.

The main objective of the study is to examine the comparative working capital management of ULN Ltd and NLO Ltd. The specific objectives are to examine the influence of working capital management, to analyze the affecting factors of working capital management, to assess and analyse the position of working capital in ULN Ltd and NLO Ltd. and to study the relationship of working capital pattern between the manufacturing and blending companies.

Review of literature is the study of the past research studies and relevant materials. It is advancement of existing knowledge and in depth study of subject matter. In literature review, researcher takes hints from past dissertation but he or she should take need of republication. This chapter also gives the conceptual framework on working capital position and this chapter is basically concerned with review of literature relevant to the topic working Capital Position/Management with special reference Nepalese manufacturing sector. The previous study cannot be ignored because they provide the foundation to the present study. There must be continuity in research. This continuity in research is ensured by linking the present study with past research studies. This chapter highlight the literature that is available in concerned subject as to my knowledge, research work, and relevant study on this topic, review of journals and articles review of thesis work performed previously and its provides insight into the finding of earlier studies through the review of books, publications and previous studies related to the working capital management.

Research methodology is a sequential procedure and collection scientific methods to be adopted in a systematic study. In other word research methodology describes the methods and process applied in the entire aspect of the study. It's a way to systematically solve the research problem. Research methodology comprises of research design, nature and sources of data, data collection sources, data analytical tools, methods of data analysis. This study is based on descriptive and analytical research design, as it is based on survey and fact findings. The study is mainly based upon secondary data; the data relative to financial performance and directly obtained from concerned companies and the supplementary data and performance records of concerned companies, booklets,

journals, articles and other organization are also used. This study is concerned with working capital management of Nepalese manufacturing companies listed in Nepal stock Exchange Limited. Out of them only two manufacturing companies have been taken for these studies, which are producing different products. It may help to know the contribution of different manufacturing companies in manufacturing sector. Data are collected for five years to analyze the working capital management of concerned manufacturing companies. The samples of manufacturing companies selected are Unilever Limited and Nepal Lube Oil Limited. The collected data were analyzed through various instrument and sources. First the collected data were edited, coded and processed, analyzed and tabulated using simple financial and statistical methods major findings were made on the analysis and interpretation of data.

The major components of current assets is ULN Ltd and NLO Ltd are cash and bank balance sundry debtors, inventory and miscellaneous current assets. In ULN Ltd cash and bank balance holds the higher proportion than other component which has average percent of 41.20.

The major components of current liabilities in ULN Ltd and NLO Ltd are loan and advances, sundry creditors and miscellaneous current liabilities. Miscellaneous current liabilities hold the major proportion of total current liabilities in ULN Ltd.

The average CA to TA of ULN Ltd is 76.08% whereas in NLO Ltd it is 85.86%. The average CA to TA ratio of NLO Ltd is higher than ULN Ltd.

The average current ratio of ULN Ltd is 1.30 where as the average current ratio of NLO Ltd is 1.23 times. The general acceptable current ratio is 2:1. So the current ratio of both the companies are not satisfactory i.e. both the companies have more current liabilities than current assets. The average quick ratio of NLO Ltd 0.88. The average quick ratio of NLO Ltd is Lower than ULN Ltd.

The average receivable turnover ratio of ULN Ltd is 18.68 times. Same as the NLO Ltd is 1.84 times. The days sales outstanding of NLO Ltd is higher than

that of ULN Ltd which average of NLO Ltd is 201 days and ULN Ltd is 25 days. The average inventory ratio of ULN Ltd is higher than that of NLO Ltd i.e. 7.78 and 4.15 respectively.

Leverage ratios are calculated to examine the long term solvency of the firm. The average STF to TF ratio of ULN Ltd and NLO Ltd i.e. 4.43 times. The average STF to TF ratio of ULN Ltd and NLO Ltd are 83.61 and 81.30 respectively. It indicates that ULN Ltd has aggressive policy in financing its current assets than that of NLO Ltd during the period of study.

## **5.2 Conclusion**

The manufacturing companies should not neglect the working capital management but during the study or ULN Ltd or NLO Ltd have attention towards the working capital management. The fluctuation of ULN Ltd and NLO Ltd. C.A. determined that both of the companies have not examined the working capital management policy. Both of the companies have absence of sources of financing, financial position without long run of current assets. The ULN Ltd as well as the NLO Ltd have not predetermine of their working capital needs which indicates that there is a high variability or working capital and have lower liquidity position. During the study period the profitability, liquidity and turnover ratio of both the companies are not satisfactory.

Due to the unsound economic policies of the country ULN Ltd have problem of tax provision. As in NLO Ltd it has more problems of advances and Loan. In the present situation of the modern business both the companies have sell huge commodities in credit and they are facing great problem from credit amount collection from debtors.

By the analysis of different calculation it can be concluded that ULN Ltd has better liquidity, profitability and turnover position than that of NLO Ltd. ULN Ltd followed more aggressive policy than that of NLO Ltd the correlation coefficient between net profit and net working capital of both ULN Ltd and NLO Ltd has negative relationship between these two variables. Similarly, the

correlation co-efficient between net sales and net working capital of NLO Ltd has positive relationship between the two variables but ULN Ltd has relationship between the two variables.

### **5.3 Recommendations**

From the findings of the study the following recommendations have been provided:

- ) The secondary data of ULN Ltd shows inventory holds the large proportion of current assets. So, ULN Ltd should give great attention to the inventory management. The company should adjust the inventory according to the sale and production and it's priority basis. Holding large amount of inventory carries high operating cost. There should be good storekeeping system, better material handling system and properly timely inspection. Moreover systematic inventory control system should be applied to know the inventory position in the company from time to time.
- ) The liquidity position of the firm is very much important. The higher liquidity position leads less risk and less profit to the company and tight liquidity position leads high risk and high profit. Similarly, if there is lack of current assets the firm may not be able to pay it's current liabilities and higher current assets the firm may not be able to pay it's current liabilities and higher current assets indicates the management 's failure to utilization the firms resources properly i.e. tax management. So, the firm should try to maintain the considerable liquidity position.
- ) Without a definite credit policy, the efficient management of working capital cannot be imagined. It helps the company to operate lower level of working capital. The receivables are increasing with reference to sale in ULN Ltd to avoid the investment in receivables the company should have maximum cash sales. For this the customer should provide discount on cash purchase and also should have tight credit policy. In NLO Ltd receivables are increasing which increases in collection cost and obstruct

the smooth operation of the company. It has proper absence of credit policy. So, it is recommended to have setting proper credit policy.

- ) NLO Ltd is facing a problem of effective inventory management. So, it is recommended to have effective inventory control they should pay attention to capacity utilization, ordering cost, carrying cost.
- ) NLO Ltd should determine the appropriate sources of fund. Thus, certain proportion of current liabilities should be set to avoid the risk of default. It has not fixed rule about the financing policy. It is very dangerous for the liquidity position of the firm in the future. So, it should fix the financing policy. By the analysis of secondary data, NLO Ltd is recommended to avoid risk and have profitability and liquidity to the company.
- ) The management of ULN Ltd and NLO Ltd should give attention to the minimization of operating expenses. Due to unskilled labor, over tendency of employees, unnecessary purchase of raw materials, high overhead cost leads more operating expenses. So, both the companies should pay attention towards it.



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## APPENDIX-I

### i. Calculation of Correlation between Net profit and Net WC of ULN Ltd

Rs. in Million

Year	Net Profit	x	x <sup>2</sup>	Net WC (Y)	y	y <sup>2</sup>	xy
063/64	42.61	-98.17	9637.35	175.93	70.20	4928.04	-6891.534
064/65	93.17	-47.61	2266.71	163.43	57.70	3329.29	-2747.097
065/66	140.78	0	0	180.54	74.81	5596.54	0
066/67	189.20	48.42	2344.50	9.39	-96.34	9281.40	-
067/68	238.15	97.37	9480.92	-0.63	-106.36	11312.45	-
<b>N = 5</b>	<b>X = 703.91</b>	<b>x<sup>2</sup> = 23729.48</b>		<b>Y = 528.66</b>	<b>y<sup>2</sup> = 34447.72</b>		<b>xy = -24659.687</b>

Now we have,  $x = (X - \bar{X})$

$y = (Y - \bar{Y})$

$\bar{X} = X/N = 703.91/5 = 140.78$

$\bar{Y} = Y/N = 528.66/5 = 105.73$

$r = \frac{\sum xy}{\sqrt{\sum x^2 \sum y^2}} = \frac{-24659.687}{\sqrt{23729.48 \times 34447.72}} = -0.8625$

$r^2 = 0.7439$

P.E. =  $0.6745 \times 1 - r^2 / N = 0.6745 \times 1 - 0.7439 / 5 = 0.0773$

6P.E. =  $6 \times 0.0773 = 0.4635$

### ii. Calculation of Correlation between Net profit and Net WC of NLO Ltd.

Rs. in Million

Year	Net Profit	x	x <sup>2</sup>	Net WC (Y)	y	y <sup>2</sup>	xy
063/64	6.22	3.42	11.70	18.72	-1.98	3.92	-6.7716
064/65	4.24	1.44	2.07	17.67	-3.03	9.18	-4.3632
065/66	0.31	-2.49	6.20	20.39	-0.31	0.09	0.7719
066/67	3.06	0.26	0.07	22.27	1.57	2.46	0.4082
067/68	0.17	-2.63	6.92	24.43	3.73	13.91	-9.8099
<b>N = 5</b>	<b>X = 14</b>	<b>x<sup>2</sup> = 26.96</b>		<b>Y = 103.48</b>	<b>y<sup>2</sup> = 29.56</b>		<b>xy = -19.7646</b>

Now we have,  $x = (X - \bar{X})$

$y = (Y - \bar{Y})$

$$X = \sum X/N = 14/5 = 2.8$$

$$Y = \sum Y/N = 103.48/5 = 20.70$$

$$r = \sum xy / \sum x^2 * \sum y^2 = -19.7646 / 26.96 * 29.56 = -0.7001$$

$$r^2 = 0.4902$$

$$P.E. = 0.6745 * 1 - r^2 / N = 0.6745 * 1 - 0.4902 / 5 = 0.1538$$

$$6P.E. = 6 * 0.1538 = 0.9228$$

### iii. Calculation of Correlation Between Net Sales and Net WC Of ULN Ltd.

Rs. in Million

Year	Net Sales (X)	x	x <sup>2</sup>	Net Working Capital (Y)	y	y <sup>2</sup>	xy
063/64	1236.05	-155.33	24127.41	175.93	70.20	4928.04	-10904.166
064/65	1244.73	-146.65	21506.22	163.43	57.70	3329.29	-8461.705
065/66	1524.90	133.52	17827.59	180.54	74.81	5596.54	9988.6312
066/67	1481.56	90.18	8132.43	9.39	-96.34	9281.40	-8687.9412
067/68	1469.68	78.30	6130.89	-0.63	-106.36	11312.45	-8327.988
<b>N = 5</b>	<b>X = 6956.92</b>	<b>x<sup>2</sup> = 77724.54</b>		<b>Y = 528.66</b>	<b>y<sup>2</sup> = 34447.72</b>		<b>xy = -26393.169</b>

Now we have,  $x = (X - \bar{X})$

$y = (Y - \bar{Y})$

$$X = \sum X/N = 6956.92/5 = 1391.38$$

$$Y = \sum Y/N = 528.66/5 = 105.73$$

$$r = \sum xy / \sum x^2 * \sum y^2 = -26393.169 / 77724.54 * 34447.72 = -0.5101$$

$$r^2 = 0.2602$$

$$P.E. = 0.6745 * 1 - r^2 / N = 0.6745 * 1 - 0.2602 / 5 = 0.2232$$

$$6P.E. = 6 * 0.2232 = 1.3392$$

**iv. Calculation of Correlation Between Net Sales and Net WC of NLO Ltd.**

**(Rs.in Million)**

Year	Net Sales (X)	x	x <sup>2</sup>	Net Working Capital (Y)	y	y <sup>2</sup>	xy
<b>063/64</b>	136	14.66	214.92	18.72	-1.98	3.92	-29.0268
<b>064/65</b>	119.15	-2.19	4.80	17.67	-3.03	9.18	6.6357
<b>065/66</b>	84.71	-36.63	1341.75	20.39	-0.31	0.096	11.3553
<b>066/67</b>	118.10	-3.24	10.50	22.27	1.57	2.46	-5.0868
<b>067/68</b>	148.75	27.41	751.31	24.43	3.73	13.91	102.2393
<b>N = 5</b>	<b>X = 606.71</b>	<b>x<sup>2</sup> = 2323.28</b>		<b>Y = 103.48</b>	<b>y<sup>2</sup> = 29.57</b>		<b>xy = 86.1167</b>

Now we have,  $x = (X - \bar{X})$

$y = (Y - \bar{Y})$

$\bar{X} = \sum x / N = 606.71 / 5 = 121.34$

$\bar{Y} = \sum Y / N = 103.48 / 5 = 20.70$

$r = \sum xy / \sqrt{\sum x^2 * \sum y^2} = 86.1167 / \sqrt{2323.28 * 29.57} = 0.3285$

$r^2 = 0.1079$

P.E. =  $0.6745 * 1 - r^2 / N = 0.6745 * 1 - 0.1079 / 5 = 0.2691$

6P.E. =  $6 * 0.2691 = 1.6146$

## Appendix-II

### 1. Trend Analysis of Cash and Bank Balance to Current Assets

Year (t)	X =(t - 2065)	X <sup>2</sup>	ULN Ltd			NLO Ltd		
			Y <sub>1</sub>	xy <sub>1</sub>	Y <sub>c</sub> = a+bx	Y <sub>2</sub>	xy <sub>2</sub>	Y <sub>c</sub> =a+bx
063/64	-2	4	15.62	-31.24	35.18	1.41	-2.82	1.25
064/65	-1	1	53.81	-53.81	38.19	1.86	-1.86	1.54
065/66	0	0	54.10	0	41.20	0.73	0	1.82
066/67	1	1	49.73	49.73	44.21	2.64	2.64	2.10
067/68	2	4	32.72	65.44	47.22	2.44	4.88	2.39
068/69	3				50.24			2.67
069/70	4				53.25			2.96
070/71	5				56.26			3.24
<b>N = 5</b>		<b>x<sup>2</sup> =10</b>	<b>205.98</b>	<b>30.12</b>		<b>9.08</b>	<b>2.84</b>	

**For ULN Ltd**

$$a = y_{1/N} = 205.89/5 = 41.20$$

$$b = xy_1 / x^2 = 30.12/10 = 3.012$$

**For NLO Ltd**

$$a = y_2 / N = 9.08/5 = 1.82$$

$$b = xy_2 / x^2 = 2.84/10 = 0.284$$

## 2. Calculation of Trend Values of Sundry Debtors to Current Assets Ratio

Year (t)	X = (t – 2065)	X <sup>2</sup>	ULN Ltd			NLO Ltd		
			Y <sub>1</sub>	Xy <sub>1</sub>	Y <sub>c</sub> = a+bx	Y <sub>2</sub>	xy <sub>2</sub>	Y <sub>c</sub> = a+bx
063/64	-2	4	8.06	-16.12	8.18	72.67	-145.34	68.70
064/65	-1	1	10.98	-10.98	10.97	61.34	-61.34	64.33
065/66	0	0	13.41	0	13.76	56.79	0	59.95
066/67	1	1	17.69	17.69	16.55	54.95	54.95	55.56
067/68	2	4	18.65	37.30	19.34	53.99	107.98	51.20
068/69	3				22.13			46.83
069/70	4				24.92			42.45
070/71	5				27.71			38.08
<b>N = 5</b>		<b>x<sup>2</sup> =10</b>	<b>68.79</b>	<b>27.89</b>		<b>299.74</b>	<b>-43.75</b>	

**For ULN Ltd**

$$a = \frac{y_1}{N} = \frac{68.79}{5} = 13.76$$

$$b = \frac{xy_1}{x^2} = \frac{27.89}{10} = 2.789$$

**For NLO Ltd**

$$a = \frac{y^2}{N} = \frac{299.74}{5} = -4.375$$

$$b = \frac{xy^2}{x^2} = \frac{-43.75}{10} = -4.37$$



### 3. Calculation of Trend value of Inventory to Current Assets Ratio

Year (t)	X= (t- 2065)	x <sup>2</sup>	ULN Ltd			NLO Ltd		
			y <sub>1</sub>	xy <sub>1</sub>	Y <sub>c</sub> = a+bx	y <sub>2</sub>	xy <sub>2</sub>	Y <sub>c</sub> = a+bx
063/64	-2	4	36.19	-72.38	28.50	20.45	-40.90	22.87
064/65	-1	1	21.38	-21.38	28.61	24.84	-24.84	25.49
065/66	0	0	25.73	0	28.72	32.75	0	28.10
066/67	1	1	25.78	25.78	28.83	33.07	33.07	30.72
067/68	2	4	34.54	69.08	28.94	29.41	58.82	33.33
068/69	3				29.05			35.95
069/70	4				29.16			38.56
070/71	5				29.27			41.18
<b>N = 5</b>		<b>x<sup>2</sup> = 10</b>	<b>143.62</b>	<b>1.1</b>		<b>140.52</b>	<b>26.15</b>	

For ULN Ltd

$$a = y_1/N = 143.62/5 = 28.72$$

$$b = xy_1/ x^2 = 1.1/10 = 0.11$$

For NLO Ltd

$$a = y_2/N = 140.52/5 = 28.10$$

$$b = xy_2/ x^2 = 26.15/10 = 2.615$$

**4. Calculation of Trend Value of Miscellaneous Assets to Current Assets Ratio**

Year (t)	ULN Ltd					NLO Ltd		
	x = (t – 2065)	x <sup>2</sup>	y <sub>1</sub>	xy <sub>1</sub>	Y <sub>c</sub> = a+bx	y <sub>2</sub>	xy <sub>2</sub>	Y <sub>c</sub> = a+bx
063/64	-2	4	40.13	-80.26	28.22	5.31	-10.62	7.08
064/65	-1	1	13.83	-13.83	22.30	11.96	-11.96	8.59
065/66	0	0	7.10	0	16.39	9.73	0	10.10
066/67	1	1	6.80	6.80	10.48	9.37	9.37	11.61
067/68	2	4	14.08	28.16	4.56	14.15	28.30	13.12
068/69	3				-1.35			14.63
069/70	4				-7.26			16.14
070/71	5				-13.18			17.65
<b>N = 5</b>		<b>x<sup>2</sup> = 10</b>	<b>81.94</b>	<b>-59.13</b>		<b>50.52</b>	<b>15.09</b>	

**For ULN Ltd**

$$a = y_1/N = 81.94/5 = 16.39$$

$$b = xy_1/x^2 = -59.13/10 = -5.913$$

**For NLO Ltd**

$$a = Y_2/N = 50.52/5 = 10.10$$

$$b = xy_2/x^2 = 15.09/10 = 1.509$$

### 5. Calculation of Trend Value of Loan and Advance to CL Ratio

Year(t)	ULN Ltd					NLO Ltd		
	x= (t-2065)	x <sup>2</sup>	y <sub>1</sub>	xy <sub>1</sub>	Y <sub>c</sub> = a+bx	y <sub>2</sub>	xy <sub>2</sub>	Y <sub>c</sub> = a+bx
063/64	-2	4	0	0	0	32.39	-64.78	32.34
064/65	-1	1	0	0	0	39.62	-39.62	34.86
065/66	0	0	0	0	0	28.16	0	37.39
066/67	1	1	0	0	0	43.89	43.89	39.92
067/68	2	4	0	0	0	42.89	85.78	42.44
068/69	3				0			44.97
069/70	4				0			47.50
070/71	5				0			50.02
<b>N = 5</b>		<b>x<sup>2</sup> = 10</b>	<b>0</b>	<b>0</b>		<b>186.95</b>	<b>25.27</b>	

**For ULN Ltd**

$$a = y_1/N = 0/5 = 0$$

$$b = xy_1 / x^2 = 0/10 = 0$$

**For NLO Ltd**

$$a = y_2/N = 186.95/5 = 37.39$$

$$b = xy_2 / x^2 = 25.27/10 = 2.527$$

**6. Calculation of Trend Values of Sundry Creditors to Current Liabilities Ratio**

Year (t)	ULN Ltd					NLO Ltd		
	X = (t-065)	x <sup>2</sup>	y <sub>1</sub>	xy <sub>1</sub>	Y <sub>c</sub> = a+bx	y <sub>2</sub>	xy <sub>2</sub>	Y <sub>c</sub> = a+bx
063/64	-2	4	38.39	-76.78	48.22	42.48	-84.96	43.40
064/65	-1	1	56.49	-56.49	48.55	44.06	-44.06	43.34
065/66	0	0	60.58	0	48.87	48.88	0	43.28
066/67	1	1	41.30	41.30	49.19	33.51	33.51	43.22
067/68	2	4	47.60	95.20	49.52	47.46	94.92	43.16
068/69	3				49.84			43.10
069/70	4				50.16			43.04
070/71	5				50.49			42.99
<b>N = 5</b>		<b>x<sup>2</sup> =</b>	<b>244.36</b>	<b>3.23</b>		<b>216.39</b>	<b>-0.59</b>	

For ULN Ltd

$$a = y_2/N = 216.9/5 = 43.38$$

$$b = xy_2/x^2 = -0.59/10$$

For NLO Ltd.

$$a = y_1/N = 244.36/5 = 48.87$$

$$b = xy_1/x^2 = 3.23/10 = 0.323$$

**7. Calculation of Trend Value of Miscellaneous Liabilities to Current Liabilities**

Year (t)	ULN Ltd					NLO Ltd		
	X =(t-2065)	x <sup>2</sup>	xy <sub>1</sub>	y <sub>1</sub>	Y <sub>c</sub> = a+bx	y <sub>2</sub>	xy <sub>2</sub>	Y <sub>c</sub> = a+bx
063/64	-2	4	-123.22	61.61	51.776	25.13	-50.26	23.97
064/65	-1	1	-43.51	43.51	51.453	16.32	-16.32	21.50
065/66	0	0	0	39.43	51.13	21.45	0	19.03
066/67	1	1	58.70	58.70	50.807	22.60	22.60	16.56
067/68	2	4	104.80	52.50	50.484	9.65	19.30	14.09
068/69	3				50.161			11.63
069/70	4				49.838			9.16
070/71	5				49.515			6.69
<b>N = 5</b>		<b>x<sup>2</sup> = 10</b>	<b>xy<sub>1</sub> = -3.23</b>	<b>y<sub>1</sub> = 255.65</b>		<b>y<sup>2</sup> = 95.15</b>	<b>xy<sub>2</sub> = -24.68</b>	

**For ULN Ltd**

$$a = y_1/N = 255.65/5 = 51.13$$

$$b = xy_1/ x^2 = -3.23/10 = -0.323$$

**For NLO Ltd**

$$a = y_2/N = 95.15/5 = 19.03$$

$$b = xy_2/ x^2 = -24.68/10 = -2.468$$

### 8. Calculation of Trend Value of Current Ratio

Year (t)	ULN Ltd					NLO Ltd		
	X = (t-2065)	x <sup>2</sup>	y <sub>1</sub>	xy <sub>1</sub>	Y <sub>c</sub> = a+bx	y <sub>2</sub>	xy <sub>2</sub>	Y <sub>c</sub> = a+bx
063/64	-2	4	1.79	-3.58	1.69	1.25	-2.50	1.23
064/65	-1	1	1.38	-1.38	1.50	1.17	-1.17	1.24
065/66	0	0	1.33	0	1.30	1.27	0	1.24
066/67	1	1	1.01	1.01	1.10	1.26	1.26	1.25
067/68	2	4	0.99	1.98	0.91	1.23	2.46	1.25
068/69	3				0.71			1.26
069/70	4				0.51			1.26
070/71	5				0.32			1.27
<b>N = 5</b>		<b>x<sup>2</sup> = 10</b>	<b>6.50</b>	<b>-1.97</b>		<b>6.18</b>	<b>0.05</b>	

For ULN Ltd

$$a = y_1/N = 6.50/5 = 1.30$$

$$b = xy_1/x^2 = -1.97/10 = -0.197$$

For NLO Ltd

$$a = y_2/N = 6.18/5 = 1.24$$

$$b = xy_2/x^2 = 0.05/10 = 0.005$$

### 9. Calculation of Trend Value of Quick Ratio

Year (t)	ULN Ltd					NLO Ltd		
	X = (t-2065)	x <sup>2</sup>	y <sub>1</sub>	xy <sub>1</sub>	Y <sub>c</sub> = a+bx	y <sub>2</sub>	xy <sub>2</sub>	Y <sub>c</sub> = a+bx
063/64	-2	4	1.14	-2.28	1.18	0.99	-1.98	0.95
064/65	-1	1	1.09	-1.09	1.05	0.88	-0.88	0.92
065/66	0	0	0.99	0	0.92	0.85	0	0.89
066/67	1	1	0.75	0.75	0.79	0.84	0.84	0.86
067/68	2	4	0.65	1.30	0.66	0.87		0.83
068/69	3				0.52			0.81
069/70	4				0.39			0.78
070/71	5				0.26			0.75
<b>N = 5</b>		<b>x<sup>2</sup> = 10</b>	<b>4.62</b>	<b>-1.32</b>		<b>4.43</b>	<b>-0.28</b>	

For ULN Ltd

$$a = y_1/N = 4.62/5 = 0.92$$

$$b = xy_1 / x^2 = -1.32/10 = -0.132$$

For NLO Ltd

$$a = y^2/N = 4.43/5 = 0.89$$

$$b = xy_2/ x^2 = -0.28/10 = -0.028$$