CHAPTER – I

INTRODUCTION

1.1   Background

Working capital is a crucial capital, which is compared as lifeblood of the human beings for the organization. Working capital management is an important aspect of the manufacturing companies. Only fixed assets are not sufficient to operate any organization. In practice, an organization has also to employ short-term assets and short run sources of financing. The management of such assets describes, as working capital management is one of the most important aspects of the overall financial management. Technically, working capital management is an integral part of the overall financial management.

Working capital is commonly defined as the difference between current assets and current liabilities. Net working capital can alternatively defined as that part of the current assets, which are financed with long-term funds. Current assets are very important part of the organization. If the size of current assets is large, the liquidity position would improve, but profitability would be adversely affected, as funds will remain idle. If the size of current assets is relatively small, the overall profitability will no doubt increase, but it will have an adverse effect on the liquidity position and make the firm more risky. Hence, the main objective of working capital management is to balance the amount of short-term assets.

Working capital management is concerned with the problems that arise in attempting to manage the current assets, the current liabilities and the inter-relationships that exist between them. The term current assets refer to those assets, which can convert into cash within one year. The major current assets are cash, marketable securities, accounts receivable and inventory. Current liabilities are those liabilities, which to be paid with in

one year. The basic current liabilities are account payable, bills payable, bank overdraft, and outstanding expenses. The goal of working capital management is to manage the firm's current assets and current liabilities in such a way that a satisfactory level of working capital is maintained. This is so because if the firm cannot maintain a satisfactory level of working capital, it is likely to become insolvent and may even be forced into bankruptcy. The current assets should be large enough to cover its current liabilities in order to ensure a reasonable margin of safety. Each of the current assets must be managed efficiently in order to maintain the liquidity of the firm while not keeping too high a level of any one of them. Each of the short-term sources of financing must be continuously managed to ensure that they are obtained and used in the best possible way. Therefore, the interaction between current assets and current liabilities is the main theme of the theory of working capital management.

The main objective of any organization is to maximize the shareholder's wealth. To achieve this, it is necessary to generate sufficient profits. The extent to which profits can be earned will naturally depend upon the magnitude of the sales, among other things. A successful sales program is, in other words, necessary for earning profits by any business enterprise. However, sales do not convert into cash instantly. There is invariably a time lag between the sale of goods and the receipt of cash. There is, therefore, a need for working capital in the form of current assets lack of immediate realization of cash against sustains sales activity. The operating cycle can be said to be at the heart of the need for inventory, to accounts receivable and back into cash is called the operating cycle or cash cycle. In other words, the term cash cycle refers to the length of time necessary to complete the following cycle of events.

Working capital plays crucial role in the success and failure of the organization. Lack of the knowledge about managing working capital causes harm to the organization and finally pushes its into liquidation. A

manufacturing company must have an adequate supply of raw materials to process, labor, power and fuel etc. These raw materials convert into work in process into finished goods and the product sales in market. It also must have capability of waiting for the marketing and also have ability to sale in credit. A manufacturing company should not have excess working capital; it is a sign of poor management. On the other hand, inadequate amount of working capital can threaten the solvency of the organization if it fails to meet its current obligation. It should be realized that the working capital needs of the firm might be fluctuating with changing business activity. Adequate working capital brings security and confidence with numerous advantages such as better terms of goods purchased cash, discount bank loan on favorable rate of interest. There would be steady work and there by raises the employee's moral, efficiency and creation of sound goodwill in the companies.

Industrialization plays important role in the process of economic development in country. The most important reason for embarking on performance of industrialization is to increase the national income. Hence, industrialization is universally accepted as a strategy of economic development as well as fundamental goals of most developing countries. Similarly, industries also play important role to development of economy of the country. There are about 29 manufacturing companies listed in Nepal Stock Exchange Ltd. Out of them 3 manufacturing companies have been chosen for this study, they are, Unilever limited, Nepal lube oil and Bottlers Nepal.

In most enterprise the management of working capital has been misunderstood as the management of money rather than its efficient utilization. They are also facing the problem of working capital management due to the unprofessional important for the success of any organization. For that purpose, present study may be a valuable piece of study in the field of Nepalese industries. Another important part of this

study is to present the relationship between working capital management on profit and sales and further strategies to support the working capital management.

1.2 Focus of the study

Each organization needs not only fixed capital also the working capital. To operate the day-to-day operations of business, amount invested in the form of raw material, cash, and semi-finished goods, receivables etc put together is called working capital. It affects the overall functional areas of the firm. It is the lifeblood and controlling nerve center for any types of business organization. Lack of the knowledge about managing working capital causes harm to the organization and finally pushes it's into liquidation. A manufacturing company must have an adequate supply of raw materials to process, labor, power and fuel etc. These raw materials convert into work in process into finished goods and the product sales in market. It also must have capability of waiting for the marketing and also have ability to sale in credit. A manufacturing company should not have excess working capital; it is a sign of poor management. On the other hand, inadequate amount of working capital can threaten the solvency of the organization if it fails to meet its current obligation. It should be realized that the working capital needs of the firm might be fluctuating with changing business activity. Adequate working capital brings security and confidence with numerous advantages such as better terms of goods purchased cash discount bank loan on favorable rate of interest. There would be steady work and thereby raises the employee's moral, efficiency and creation of sound goodwill in the companies.

Hence, this study focuses on the management of working capital in manufacturing companies, and why working capital management is

important for manufacturing companies like ULL, NLO and BNL, which are popular manufacturing companies of Nepal.

1.3   Statement of problem

Working capital is a crucial capital, which is compared as lifeblood of the human beings for the organization. In most enterprise the management of working capital has been misunderstood as the management of money rather than its efficient utilization. Regarding the management of working capital sources, most of public enterprises have thought of seriously. If a firm wants to maintain sound financial position, it should maintain optimum level of working capital. Determining the optimum 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.

Most of the Nepalese industries are still facing the problem of working capital management due to the unprofessional manpower. Manager still focuses their attention on the procurement aspect of working capital but not on the efficient utilization of funds defined in term of working capital. Every investor wants to earn return in his or her investment. Therefore, every organization should make profit for its owners. Profit is not only one indicator of proper management of working capital. There are several indicators of working capital management. So, basically this study has tried to find out the issues of working capital management of manufacturing companies includes ULL, NLO and BNL.

1. How working capital being financed in ULL, NLO and BNL?

2. Does the selected company adopt the working capital management policies and practices in proper manner?

3. Is there the sound liquidity position of ULL, NLO and BNL?

4. Is the composition of working capital of ULL, NLO and BNL is appropriate?

5. What are the relationships of working capital on sales and NP in selected manufacturing companies?

6. To what extent the selected companies are able to meet its short-term obligation?

7. Does the selected companies adopt further polices and practices regarding working capital management for further improvement?

1.4 Objectives of the study

The main objective of the study is to analyze the working capital of listed manufacturing company i.e. ULL, NLO and BNL and the relationship between working capital and profit of the companies. It also helps to analyze financial strength and weakness of the manufacturing companies.

The specific objectives of the study are as follows:

1. To point out the valuable recommendation and suggestion based on   analysis.

2. To analyze the composition of working capital of selected manufacturing company's i.e. ULL, NLO and BNL.

3. To analyze the relationship of working capital on net profit and sales of selected companies.

4. To study about further strategies, policies and practices adopted for working capital management of selected companies.

1.5 Significant of the study

Regarding the economic structure of country, the industry does not have sufficient investment opportunity. Nepalese business environment is in the threshold of change. In this situation, firms have to adopt suitable strategies for their existence. This study attempts to find out whether the manufacturing company can manage their working capital or not.

The study will be useful to the following stakeholders:

 i. To the management of the manufacturing companies.

 ii. To the investor i.e. Shareholders.

 iii. To the policy makers (while formulating the policy regarding manufacturing companies.)

   This study is also significant to the researcher

 i. To get valuable finding of research.

 ii. To get depth knowledge of manufacturing companies.

1.6 Limitation of the study

The study has been conducted for the requirements of the master degree in business study and it has been limited in terms of period of study as well as source and nature of data. Thus the limitations of this study are;

1. This research has been conducted to fulfill the requirement of MBS course of partial fulfillment.

2. The whole study is concentrated in working capital. It does not cover the other areas of the industry.

3. The whole study is based on secondary data from the annual reports of the company. Similarly, the study focused on balance sheet and profit and loss account maintained by the industry and published in annual report where the information was given is condensed form.

4. This study covers only six years period from 056/ 057 to 061/062 B.S.

5. Out of numerous industries and company sectors, this study are confined to only three manufacturing company i.e. ULL, NLO and BNL.

1.7 Organization of the study

In this research work it has been divided into five chapters. These are as follows:

Chapter one- Introduction

This chapter includes background, focus of the study, statement of the problem, objective of the study, significance of study, limitation of the study and organization of the study.

Chapter two- Review of literature

This chapter reviews the existing literature in the relevant areas and includes conceptual framework, working capital policy, need for working capital, financing of working capital, determinants of working capital, review of articles and previous thesis & book and research gap

Chapter three- Research methodology

This chapter introduces three-search design, nature and sources of data, sources of facts, population and sample, methods of data analysis etc.

Chapter four-Data presentation and analysis

This chapter deals with systematic presentation and analysis of data. Various financial tools, techniques and necessary tools have been used to analyze and interpret the data. This chapter is the key chapter for the present study.

Chapter five- Summary, Conclusion and Recommendation

This is the final chapter of the present study and offers necessary recommendations for future improvement of working capital of manufacturing company.

CHAPTER – II

REVIEW OF THE LITERATURE

2.1 Conceptual framework

Every manufacturing company needs various types of assets in order to run their business. They are fixed and current assets. Fixed assets fall into two categories: *Tangible and Intangibles.* The asset, which has physical existence and generates goods and services over long period are called 'tangible fixed assets'. In this category of fixed assets are land, building, plant, machinery, furniture and so on. But some other fixed assets do not generate goods and services directly. However, It reflects the right of the firm. It is called 'intangible fixed assets'. Patents, copyrights, trademarks and good will are the example of intangible assets. Both fixed assets are written off over a period of time.

Current assets some times also called liquid assets. Current assets are those resources of the firm, which are either held in the form of cash or expect to be converted into cash within an operating cycle of the business. It includes; cash marketable securities, account receivable, work in process and finished goods. *Cash* is the most liquid current assets and include cash in hand and cash at back. It provides instant liquidity and can be used to meet obligations. *Marketable securities* are the temporary or short-term investment bond and other securities. These securities are reading marketable and can be converted within the accounting period.

Current liabilities are debts payable within an accounting period. It includes; creditors, bills payable and outstanding expenses. Sundry creditors represent current liabilities towards suppliers from whom the firm has purchased raw materials on credit. This liability is also known as account payable. Account payable is the promises made in writing by the

firm to make payment of a specified sum to creditors at some specific date. 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. It is the lifeblood and controlling nerve center for any types of business organization. The success or failure of organization is depending upon management of working capital. Business can't run smoothly without proper management of working capital. Hence, the management of current assets and current liabilities are necessary for day-to-day operation of any organization.

2.1.1 Concept of the working capital

Every organization needs not only fixed capital also the working capital. To run the day-to-day operations of business, amount invested in the form of raw material, cash, and semi-finished goods, receivables etc put together is called working capital.

There are two concepts of working capital- *gross and net (Khan and Jain, 1981:607).* According to the gross concept, "working capital refers to the capital invested in current assets of the firm." It focuses only the optimum investment on current assets and financing of current assets. It includes cash, short-term securities, inventory and accounts receivable. The level of investment in current assets may be fluctuating with the changing business activity. Thus, this concept can help earning more profit through maximum utilization of current assets. This concept is called *quantitative concept.*

According to the net concept working capital refers to the difference between current assets and current liabilities. In other word, it is that part of current assets financed with long-term funds. It focuses the liquidity position of the firm and suggests extending which working capital need to

be financed by permanent sources of funds. It is not very useful for comparing the performance of different firms as a measure of liquidity, but it is quite useful for internal control. This concept helps to compare the liquidity of the same firm over a time.

Working capital management is the effective lifeblood of any business. It plays a vital role for existing of any public enterprises. It is the centers of the routine day-to-day administration of current assets and current liabilities. Therefore working capital management in public enterprises is very important mainly for four reasons. Firstly, public enterprises must need to determine the adequacy of investment in current assets otherwise it could seriously erode their liquidity base. Secondly, they must select the type of current assets suitable for investment so as to raise their operational efficiency. Thirdly, they are required to ascertain the turnover of current assets, which determine the profitability of the concerns. Lastly, they must find out the appropriate sources of funds of finance the current assets.

2.1.2 Type of working capital

Working capital can be classified into two parts permanent and variable working capital. Those two types of working capital are necessary for continuous production and sales without any interruptions. Every organization has variable working capital and permanent working capital. Certain portion of working capital always remains permanent working capital. Cash receivables and inventory level in the business would never decline to zero. The working capital other than permanent is called variable working capital. It keeps on changing in course of business operation.

i. Permanent working capital

Permanent working capital refers to that level of current assets, which is required on a continuous basis over the entire year. A manufacturing concern cannot operate regular production and sales functions in the absence of this portion of working capital. Therefore, a manufacturing concern holds certain minimum amount of working capital to ensure uninterrupted production and sales functions. This portion of working capital is directly related to the firm's expansion of operation capacity.

ii. Variable working capital

Variable working capital represents that portion of working capital, which is required over permanent working capital. Therefore this portion of working capital depends upon the nature of firm's production, relation between labor and management. If a firm has sound management of this portion of working capital, it can easily win the other competitors in the cutthroat of the market.

2.2   Working capital policy

Working capital policy involves two basic questions: 1) what is the appropriate level for current assets, both in total and by specific accounts? 2) How should current assets be financed?

2.2.1 Current assets investment policy

Current assets investment policy refers to policy regarding the total amount   of current assets to be carried to support the level of sales. There are three alternative current assets investment policies: fat cat policy, lean and mean policy and moderate policy.

i. Fat cat policy

This is known as relaxed current assets investment policy. In this policy, the firm holds relatively large amount of cash, marketable securities, inventory and receivable to support a given level of sales. This policy creates longer inventory and cash conversion cycles. It also creates the longer receivable collection period due to the liberal credit policy. Thus, this policy provides the lowest expected return on investment with lower risk.

ii. Lean and Mean policy

In lean and mean policy, a firm holds the minimum amount of cash, cash marketable securities, inventory and receivable to support a given level of sales. This policy is also called the restricted current assets investment policy. This policy tends to reduce the inventory and receivable conversion cycle. Under this policy, firm follows a tight credit policy and bears the risk of decrease sales.

iii. Moderate policy

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

2.2.2 Current Assets financial policy

It is the manner in which the permanent and temporary current assets are finance. Current assets are financed with funds raised from different sources. But cost and risk affect the financing of any assets. Thus, current assets financing policy should clearly outline the sources of financing of current assets. There are three variants aggressive, conservative and matching polices of current assets financing.

i. Aggressive policy

In an aggressive policy, the firm finances a part of its permanent current assets with short term financing and rest with financing. In other words, the firm finances not only temporary current assets but also a part of the permanent current assets with short term financing. In general, interest rate increases with time i.e. shorter the times lower the interest- rate increases with time i.e. shorter the times lower the interest rate. It is because lenders are adverse and risk generally increases with the length of lending period. Thus, under normal the firm borrows on a short term financing rather than financing. On the other sides if the firm finances its permanent current assets by short-term financing, then it runs the risk of renewing the borrowing again and again. This continued financing exposes the firm to certain risk. It is because in future in retest expenses will fluctuate widely, and also it may be difficult for the firm to raise the funds during the stringent credit periods. In conclusion, there is higher risk, higher return and low liquidity position under this policy.

ii. Conservative policy

In conservative policy, the firm uses to finance not only fixed and permanent current assets, but also part of the temporary current assets. This policy leads to high level of current assets, with long conversion cycle, low level of current, liabilities and higher interest cost the risk and return are lower than that of aggressive policy and liquidity position is higher than that of aggressive one. The risk adverse management follows this policy.

iii. Moderate policy

In this policy the firm finances the permanent current assets with long-term financing and temporary with short term financing. It lies in between

the aggressive and conservative policies. It leads to neither high nor low level of current assets and current liabilities.

2.3   Need for working capital:

Every organization needs adequate amount of working capital. It should be in good health and efficiently circulated. Business can't run smoothly without the proper management of working capital. It is the lifeblood and controlling nerve center for any types of business organization. Most of the firm's goals are to maximize their wealth of shareholders. They want to earn sufficient return from its operation and expand their business. 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 i.e. cash receivable, inventory etc. hence every firm needs working capital to meet following motive.

i. Transition motive

Organization needs working capital for transaction motive. To meet the transition motive, they have to holds cash and inventories, which facilitate smooth production and sales operation in regular.

ii. Precautionary motive

Future is uncertain, customer's needs are changeable, different uncertainties will be happen like strike, failure of important customer, etc. to meet such contingencies in future, the firm needs the working capital. Hence the organization should hold cash and inventories to protect from the risk of unpredictable change in demand and supply, unexpected slow down in collection of some order for goods and some other unexpected emergency.

iii. Speculative Motive

Different kinds of opportunities will come in future. To take advantages for such opportunities, they need working capital. Different opportunities will come i.e.

a) To speculate on interest rate.

b) To make purchase at favorable price.

c) Opportunities of profit making investment.

d) An opportunity of purchases raw materials at a reduced price on payment   of immediate cash. Etc.

2.4   Financing of working capital

Working capital is very essential things for doing day-to-day operation in manufacturing companies. Hence organization has to finance on working capital. Every manufacturing company requires additional assures whether they are in stable or growing conditions. The most important function of financial manager is to determine the level of working capital and to decide how it is to be financed. Financing of any assets is concerned with two major factors: cost and risk. Hence, the financial manager must determine an appropriate financing mix, or decide how current liabilities should be used to finance current assets.

However, a number of financing mixes are available to the financial manager, he can resort generally three kinds of financing.

i. Long term financing

ii. Short term financing

iii. Spontaneous financing

i. Long term financing

Long term financing has high liquidity and low profitability. Ordinary share, debenture, preference share, retained earning and long-term debt from financial institution are the major sources of long term financing.

ii. Short term financing

Firm must arrange short-term credit in advance. The sources of short term financing of working capital are trade credit and bank borrowing.

Trade credit

It refers to the credit that a customer gets from suppliers of goods in the normal course of business. The buying firms have not to pay cash immediately for the purchase is called trade credit. It is mostly and informal arrangement and is granted on an open account basis. Another form of trade credit is a bill payable. It depends upon the term of trade credit.

Bank credit

Bank credit is the primary institutional sources for working capital financing. For the purpose of bank credit, amount of working capital requirement has to be estimated by the borrowers and banks are approached with the necessary supporting data. After available of this data, bank determines the maximum credit based on the margin requirement of the security. The types of loan provide by commercial banks are loan arrangement, overdraft arrangement, commercial papers etc.

iii. Spontaneous financing

Spontaneous financing arises from the normal operation of the firms. The two major sources of such financing are trade credit (i.e. credit and bills

payable) and accruals. Whether trade credit is free of cost or not actually depends upon the terms of trade of trade credit.

Financial manager of the firm would like to finance its working capital with spontaneous sources as much as possible. In practical aspect, the real choice of current assets financing is either short term or long-term sources. Thus, the financial manager concentrates his power in short term versus financing. Hence the financing of working capital depends upon the working capital policy, which is perfectly dominated by management attitude towards the risk return.

2.5   Determinants of working capital

The importance of efficient working capital management is an aspect of overall financial management. Thus a firm plans its operations with adequate working capital requirement or it should have neither too excess nor too inadequate working capital. But there are no sets of rules or formulate to determine the working capital requirements of the firm. It's because of a large number of factors that influence the working capital requirement of the firm. A number of factors affect different firm in different ways. Internal polices and environment changes also affect the working capital. Generally, the following factors affect the working capital requirement of the firm.

i. Nature and size of business

The working capital requirement of a firm is basically related to size and nature of the business. If the size of the firm is bigger, then it requires more working capital. While small firm needs less working capital. Trading and financial firms require larger amount of working capital relatively to public utilities.

ii. Manufacturing cycle

Working capital requirements of an enterprise is also influenced by the manufacturing or production cycle. It refers to the time involved to make the finished goods from the raw materials. During the process of manufacturing cycle funds are tied up. The longer the manufacturing cycle, the larger will be the working capital requirement and vice-versa.

iii. Production policy

Working capital requirement is also determined by its production policy. If a firm produces seasonal goods, then it production and sales volume fluctuates with different seasons. This type of fluctuating production policy affects the working capital policy of the firm.

iv. Credit policy

Credit policy also affects the working capital of a firm. Working capital requirement depends on term of sales. Different term may be followed to different customers according to their credit worthiness. If the firm follows the liberal credit policy, then it requires more working capital. Conversely, if a firm follows the stringent credit policy, it requires less working capital.

v. Availability of credit

Availability of credit facility is another factor that affects the working capital requirements. If the creditors avail a liberal credit terms, then the firm needs less working capital and vice-versa. In other words, the firm can get credit facility easily to run the firm otherwise more working capital is required to operate the firm smoothly.

vi. Growth and Expansion

Growth and expansion also affect the working capital requirement to a firm. However, it is difficult to precisely determine the relationship

between the growth and expansion of the firm and working capital needs. But the other things being the same growing firm needs more working capital than those static ones.

vii. Price level change

Price level changes also affect the working capital requirement of a firm. Generally, a firm requires maintaining the higher amount of working capital if the price level rises. Because the same level of current asset needs more funds due to the increasing price. In conclusion, the implications of changing price level on working capital position will vary from firm to firm depending on the nature and other relevant consideration of the operation of the concerned firms.

viii. Operating Efficiency

Operating efficiency is also important factor, which influences the working capital requirements of the firm. It refers to the efficient utilization of available resources at minimum cost. Thus, financial manager can contribute to strong working capital position through operating efficiency. If a firm has strong operating efficiency then it needs lesser amount of working capital and vice versa.

ix. Profit Margin

The level of profit margin differs from firm to firm. It depends upon the nature and quality of product, marketing management and monopoly power in the market. If the firm deals with the high quality product and has a sound marketing management and enjoyed the monopoly power in the market then it earns quite high profit and vice versa. Profit is sources of working capital, because it contributes, toward the working capital as a pool by generating more internal funds.

2.6 Review of articles, previous thesis and book

2.6.1 Review of articles

Working capital management is concerned with the problems that arise in attempting to manage the current assets, current liabilities and the interrelationship that exists between .So the goal of reviews of articles of working capital is to manages of current assets and current liabilities in such a way (than the previous) that an acceptable level of net working capital is maintained. We can easily take loan from outsiders by showing optimal level of working capital. Firms may have an optimal level of working capital that maximizes their value. Inventory, account receivable, cash are the important component of working capital. Hence, to make optimal level of working capital, organization should manage these entire components in proper way.

Rapid and unproductive business changes are making the business markets all over the world more competitive and exerting competitive pressures on firms. It is not possible to estimate working capital needs accurately, the firm must decide about levels of current assets to be carried. The currents holding of the firm will depend upon working process. It may follow a conservative or an aggressive policy. These policies have different risk return implications. The financial manager should determine the optimum level of current assets so that the wealth of share holders will be maximized that the wealth of share holders will be maximizes. In fact, optimum level of each type of currents should be fixed.

2.6.2 Review of previous thesis

Mr. Bsaudev Giri, 1996 has carried out a study of working capital management of Birgunj Sugar factory limited. He has analyzed the

financial statement of the factory for nine years (041/42 to 050/51). The objectives of the study were to analyze the net working capital and relationship between current assets and liabilities, affect of working capital on profitability and other operations. He has used financial ratios as the major tools of the study.

He found that inventories, receivables, cash, and bank balance were the major share of current assets. Inventory had held the major portion of current assets. He found the fluctuating trend in current assets and their proper use. More over, he found the unsatisfactory profitability portion of the factory.

Mr. Deependra Raj Sharma, 1999 has carried out the study on working capital management of Nepal Battery Company limited. He has covered the time period of five fiscal years from 049/50 to 053/54. His objectives were to analyze the liquidity, composition of working capital, assets utilization, and profitability. He has used financial ratio as the major tools of the study.

He has found that of the inventory holds the largest portion of NBCL in a fluctuating trend because of fluctuating sales volume. He shows the less utilization of working capital.

Mr. Dikpal Subedee, 2003 has also carried out a study of working capital management of listed manufacturing companies. He chooses five manufacturing companies and it cover 5 yrs. This study has focused on the liquidity position, working capital policy followed by manufacturing companies and cash conversion period.

On his study he find out that our companies were not seriously examined the working capital policy. Most of the manufacturing companies are followed aggressive policy but opposite impact in revenue. The theory of high risk and high-risk companies has negative return. Similarly liquidity,

profitability and turnover position are found unfavorable. He recommends that, Nepalese manufacturing companies should examine their working capital policy and they should manage their cash, inventory and receivable for the improvement of their working capital management.

2.7 Research Gap

This study has analyzed some issue and gaps on working capital management of Nepalese manufacturing companies by using financial & statistical tools. The standard of current ratio is 2:1 but it is not necessary because it depends on the nature and situation of company. Chi-test shows that the working capital management of all sectors is in satisfactory level. But previous thesis analyzed that the current assets, current liabilities, composition of working capital are not good of working capital management of Nepalese manufacturing companies by using financial tools.

CHAPTER – III
RESEARCH METHODOLOGY

3.1 Introduction

Research methodology refers to the various sequential steps to be adopted by the researchers in studying the problem with certain objectives in views. It is the process of arriving to the solution of the problem through planned and systematic dealing with the collection, analysis and interpretation of the facts and figures. It consists of research design, sources of data, tools and techniques employed population and sample of survey design.

3.2 Research design

Research design is plan structure and strategy of investigation conceived so as to obtain answer to research questions and to control variances. Research design is plan for the collection and analysis of data. It represents a series of guideposts to enable the researcher to progress in the right direction in order to achieve the goal. The purpose of research design is to provide answers to research questions and control variance. Some financial and statistical tools are used to examine the primary and secondary data.

3.3 Population and samples

Population is the universe about which the study has aimed to enquiry and sample is the representative of the population. Since the study is concerned with the working capital management of Nepalese manufacturing companies. Therefore all the listed manufacturing

companies are the population of the study. The census of the population is neither feasible nor desirable for the study of this nature that is why a sample from the population has been selected for the purpose of this study. There are 29 manufacturing companies listed in NEPSE. Among 29 listed manufacturing companies, three manufacturing companies, ULL, NLO, and BNL are taken as sample.

3.4   Sources of data

The study is based on both primary and secondary data. The supplementary data were obtained from unpublished official records of concern companies, booklets, journals and other sources like Nepal stock exchange and websites. For primary analysis, convenient sampling technique was followed to gather the opinion from the respondents.

3.5   Data processing procedure

The data analysis tools are applied as simple as possible. Data obtained from various sources cannot directly be used in their original form. They need to further verified and simplified for the purpose of analysis. Data, information, figures and facts so obtained need to be checked, rechecked, edited and tabulated for computation.

According to the nature of data, they have been inserted in meaningful tables, which have been shown in appendices. Data have been analyzed and interpreted using financial and statistical tools. The detail calculations cannot be shown in the body part of the report. They are presented in appendices at the end of the report.

3.6   Nature of respondents

This section deals the nature of the respondents of present research. Nature of the respondents can be discussed based on many demographic variables such as Gender, Age, Profession and experiences.

3.6.1 Gender group of respondents

Sample covered both gender groups of respondents. Following table shows the actual statistics of male and female.

Table 3.1
Gender of the respondents

Label	Frequency	Percent
Male	26	81.25
Female	6	18.75
Total	**32**	**100.0**

Above table shows that out of the total 24 respondents 21 were male and 3 were female. Male respondents comprised 81.25% and female respondents comprised 18.75%. So, the number and percentage of the male respondents are higher than female respondents.

3.6.2 Age of respondents

The following table shows the respondent's age and the cumulative percent comprised by them.

Table 3.2
Age of the respondents

Year	Frequency	Percent
Below 30 yr.	16	50
31-35	8	25
36-40	6	18.75
41-45	2	6.25
Total	**32**	**100**

Above table shows that out of total respondents, the age group of below 30 was 16. It shows that must respondents were below 30 and 50% were lies on that group. The age group of 31 to 35 comprised 8 in number and 25 in percentage that is the second highest age group. The age group of 36 to 40 comprised 6 in number and 8.75 in percentage. Likely, the responds of 41 to 45 age groups were only 2 that comprised 6.25%, which is lowest frequency and percentage among different age groups.

3.6.3 Formal education of the respondents

The following table shows the formal education of the respondents.

Table 3.3
Formal education of the respondents

Education	Frequency	Percent
Bachelor	10	31.25
Master	21	65.62
Ph.D.	32	3.13
Total	**32**	**100.0**

Above table shows that must of the respondents were found having master degree in their academic education. Out of 32 respondents 21 have master degree which comprised 96.87 %.

3.6.4 Profession of the respondents

The following table shows the profession of the respondents.

Table 3.4
Profession of the respondents

Profession	Frequency	Percent
Officer	4	12.5
Manager	4	12.5
Assistant	4	12.5
Accountant	15	46.88
Academician	5	15.62
Total	**32**	**100.0**

Above table shows that out of total respondents, 4 were respondents were in officer level and it comprised around 12.5% of the total respondents group. There were also 4 respondents in managerial level and 4 were in assistant. The frequency of academician was 5 and accountants were 15 in number. There were highest number of accountants comprised 84.38%.

3.6.5 Work experience of respondents

The following table shows the respondents work experience in their related profession.

Table 3.5
Work experience of the respondents

Year	Frequency	Percent
1-5	18	56.25
6-10	10	31.25
11-15	-	-
16-20	3	9.37
21 more	1	3.13
Total	**32**	**100.0**

Above table shows that out of total respondents, the respondents of 1-5 year's experience were 18 and it comprises 56.25%. It shows that must of the respondents have 1 to 5 years' experience. The second highest numbers of respondents were 10 in 6 to 10 years that comprised 31.25 in percentage. There were not any respondents' in-groups 11 to 15.

Similarly, there was only one respondent, which has more than 21 years experience.

3.7   Tools and Techniques of Analysis

Different kinds of tools and techniques are used for analyzing working capital management in Nepalese manufacturing companies. Both financial and statistical tools are used. Different ratios like liquidity, turnover, and profitability ratios are computed for analyzed secondary data. Similarly, cash conversion cycle is also computed to analyze the working capital management of manufacturing companies. Coefficient of correlation by Karl person's method, probable error and regression are also used to analyze the relation between WCM, sales and profits.

Simple descriptive statistical tools such as frequency, mean, standard deviation and standard error of the mean were analyzed. Some other inferential statistic such as Chi-square is used to find out the differences and relations of the variables.

CHAPTER – IV

PRESENTATION AND ANALYSIS OF DATA

4.1   Introduction

The main objectives of the study are to present data and analyze them with the help of various statistical tools. It is the main tool, which points out a strength and weakness of an organization. Here effort has been made to analyze the different data provided by listed manufacturing companies.

This chapter will present the analysis of components of working capita of manufacturing companies listed in NEPSE. The major variables for this study are current assets, current liabilities, net profit, sales, total assets and cost.

The study is based on both primary and secondary data. For primary analysis, convenient sampling technique was followed to gather the opinion from the respondents. Five-likert type of questionnaire was designed and administered to different focus groups. The result of analysis is presented on this chapter.

4.2   Working capital policies and practices adopted by selected companies

The main objectives of any firm's are to maximize the wealth of its shareholders. In order to achieve the target goal, it has to perform many functions. To achieve such a goal, the organization should determine how many funds should be invested in working capital in gross concept. Every firm can adopt different financing policies according to the financial manager's attitude towards the risk return trade off. One of the most important decisions of finance manager is how much current liabilities should be used to finance current assets.

Here, to analyze the working capital management, different variables and ratio of the manufacturing companies taking six years data to indicate working capital policy.

4.2.1. Size of net working capital

The net working capital of the firm is the difference between current assets and current liabilities.

The average net working capital position of selected manufacturing companies is computed in the table given below.

Table 4.1
Company average of net working capital

Rs. In Million

S.N.	Company	Amount (Rs.)
1	ULL	260.80
2	NLO	54.13
3	BNL(B)	229.73
4	BNL (T)	244.83
	Co. Average	**197.37**

Source: annex 10

The above table shows the average net working capital of selected listed manufacturing companies of the study period. The overall company average of net working capital is Rs.197.37. The highest amount of net working capital is Rs. 260.80 m of ULL and lowest amount of net working capital is Rs 54.83 m of NLO.

The amount of net working capital is widely varied among the selected manufacturing companies.

Table 4.2
Yearly average of net working capital

Rs. In Million

S.N.	Year	Amount (Rs.)
1	2000	164.05
2	2001	155.37
3	2002	178.84
4	2003	209.48
5	2004	217.23
	Yearly average	**197.37**

Sources: Annex 10

The above table shows the average net working capital of selected listed manufacturing companies of the study period. The overall company average of net working capital is Rs.197.37. The highest amount of net working capital is Rs.259.37m on 2005 and lowest amount of net working capital is Rs 155.37 m on 2001.

4.2.2 Cash conversion cycle

Cash conversion cycle is the length of time between paying for purchase and receiving cash from the sale of finished goods.

Cash conversion cycle helps to analyze the cash flow of the firm. A cash conversion cycle reflects the net time interval in days between actual cash expenditures of the firm on productive resources and the ultimate recovery of the cash. The cash conversion cycle is calculated as follows.

Cash conversion cycle = inventory conversion period + receivable conversion period – payable deferral period.

Inventory conversion period:

Inventory conversion period is the average length of time required to convert materials into finished goods and then to sell those goods. It is the amount of time the product remains in inventory in various stages of completion.

The inventory conversion period is calculated by dividing inventory by the cost of goods sold per day.

$$\text{Inventory conversion period} = \frac{\text{inventory}}{\frac{\text{COGS}}{360}}$$

Receivable conversion period

The receivable conversion period is the average length of time required to convert the firm's receivables into cash. It is also called day's sales outstanding. It is calculated by dividing receivables by the sales per day.

$$\text{Receivable conversion period} = \frac{\text{Receivable}}{\frac{\text{Sales}}{360}}$$

Payable deferral period

The payables deferral period is the average length of time between the purchase of raw materials and labor and the payment of cash. It is calculated by dividing account payable by the COGS per day.

$$\text{Payables deferral period} = \frac{\text{Account payable}}{\frac{\text{COGS}}{360}}$$

Table 4.3
Cash conversion cycle

Year\Company	2000	2001	2002	2003	2004	2005	Ave.
ULL	8.20	64.90	34.12	-34.65	-36.54	-19.65	2.73
NLO	324.29	328.95	223.76	171.76	208.96	204.60	243.72
BNL(B)	177.63	230.62	264.64	246.07	218.13	257.83	232.49
BNL (T)	128.83	209.93	332.23	277.48	289.96	406.25	274.11
Average	**159.74**	**208.60**	**213.69**	**165.17**	**170.13**	**212.26**	**188.26**

Source: Annex 26

The overall cash conversion cycle is 188.26. The cash conversion period of individual company is widely varied during the study period. The highest cash conversion period is 406.25 days of BNL (T) in the year 2005 and lowest cash conversion period is –19.65 days (it doesn't take time) of ULL in year 2005. The average cash conversion cycle of ULL is lower than overall average and the three have higher cash conversion cycle. Higher and lower cash conversion cycle is not good for the company. Such volatile cash conversion period shows that there is no consistent working capital policy in Nepalese Manufacturing companies.

4.2.3 Composition of working Capital

The success and failure of any business depends on its utilization of resources, which again depends on the day today business activities. To run day to day activities more efficiently appropriate level of current assets, which is called gross working capital should be maintained high ratio of current assets in total assets structure does not always convey a high liquidity position because current assets consists of cash, receivable and inventories. Moreover, except cash, receivables and inventories have to wait for conversion into cash. Therefore, they are less liquid. Hence for qualitative consideration of the current assets its composition should be

seriously examined. The quality of current assets can be judged with the individual holding of cash receivable and inventories to its total current assets holding. The relationship has been established by computing the ratio of cash, receivable and inventories to current assets as below.

The following table shows the company average ratio of cash receivable to current assets, receivable to current assets, inventory to current assets and other current assets to current assets.

Table 4.4
Companies average ratios of cash, receivable, inventory and other current assets to current assets.

Rs. in million

s.no	Company	Cash to CA	Receivable to CA	Inventory to CA	Other CA to CA
1	ULL	0.310	0.111	0.317	0.245
2	NLO	0.016	0.602	0.273	0. 112
3	BNL(B)	0.040	0.193	0.389	0.378
4	BNL (T)	0.084	0.266	0.282	0.370
Company Ave. ratio		**0.113**	**0.293**	**0.315**	**0.276**

Sources: annex 27

i) Cash to current assets ratio

The higher investments in cash means the higher ideal fund in the company, which earn nothing, rather decrease the profitability of the firm. On the other hand, the lowest investment in cash means unable to meet its maturing liabilities on time or firm's risk of insolvency is high. The fluctuation trend of the cash shows that firms are not able to meet its maturing liabilities on time.

The companies overall average of cash to current assets are 0.113 i.e. 11.30%. It means the companies use the cash 11.30% of current assets. The lowest holding of cash is 0.016 by NLO. Other hand, ULL holds the highest cash by 0.310 of current assets. The average ratio of cash to CA

of ULL, NLL, BNL (B), BNL (T) are 0.310, 0.016, 0.040, and 0.084 respectively which is lower than companies overall average except ULL. It reveals companies have not maintained consistency in cash holding.

Receivable to CA

The overall company average ratio of receivable to CA is 0.293. The average ratio of receivable to CA of ULL, NLO, BNL(B) & BNL (T) are 0.111, 0.602, 0.193, and 0.266 respectively which is lower than companies overall average. The highest ratio is 0.602, which is hold by NLO, and lowest ratio is 0.111 of ULL. The ratio of receivable to current is widely varied among the selected manufacturing companies. The high variability seems to be an indication of inconsistent credit policy of the manufacturing enterprises.

Inventory to CA

The overall company average ratio of inventory to CA is Rs 0.315m. The average ratio of inventory to CA of ULL, NLO, BNL(B) & BNL (T) is 0.317, 0.273, 0.389, and 0.282 respectively. The highest ratio is 0.389, which is hold by BNL (B), and lowest ratio is 0.273 of NLO. Higher inventory holding causes higher carrying cost and lowers profitability as well as lower inventories turnover. It is also the result of less efficiency inventory management. Inventory depends upon the nature and type of business. Manufacturing companies need more inventory compared the public utilities?

Other CA to CA

The overall ratio of other current assets to CA is 0.276 i.e. 27.60%. The average ratio of inventory to CA of ULL, NLO, BNL (B) & BNL (T) is 0.245, 0.112, 0.378 and 0.370 respectively. The ratio of ULL, NLO and BNL (T) are below the overall average. The highest ratio is 0.378 of BNL and the lowest ratio is 0.112 of NLO

4.2.4 Short-term position

Liquidity ratio is employed to measure the company's ability to meet short-term obligation. These ratios provide insight in to the present cash solvency in the event of financial condition. The ratio is used to measure the company's short-term obligation with short-term resources availability at given part of time. The ratio is also known as solvency ratio or working capital ratio. It is extremely essential for a firm to be able meet its current obligations as they become due. A company should ensure that it doesn't suffer from lack of liquidity and also that it is not too much highly liquid. Lack of sufficient liquidity will result on bad credit worthiness and loss of creditor's confidence. On the other hand, high liquidity is also bad as it results in lower profitability because of under ability for payment of short-term liabilities. Liability is closely related with the net working capital, so the researcher has made an effort to analyze the size of net working capital and current ratio.

i. Current Ratio

Current ratio is also known as Working Capital ratio. It indicates the availability of the current assets in rupees for every one rupee of current liability. As a conventional rule, a current ratio of 2 to 1 in considered satisfactory. However, this rule should not be blindly followed, as it is the test of quantity not quality. Higher the current ratio betters the liquidity

position. The current ratio of sample manufacturing companies is shown under the table.

Table 4.5
Companies Average of current ratio

Rs. in million

S.No.	Company	Ratio
1	ULL	1.79
2	NLO	2.10
3	BNL(B)	1.96
4	BNL (T)	2.06
	Average	**1.98**

Sources: annex 9

The company average current ratio is 1.98, which is near by standard. The highest ratio is 2.10 of NLO and lowest ratio is 1.96 of BNL (B). The overall current ratio of the company is satisfactory. It means they are able to meet their short-term obligation.

4.2.5 Efficiency of working capital

The behavior of working capital utilization and improvement can be analyzed with the help of turnover ratio. This ratio measures the degree of effectiveness in use of resources or funds by an enterprise that is based on the relationship between the sales and investment in different assets.

i. Net working capital turnover ratio

Needs of working capital of manufacturing companies are also depend upon the quickness of turnover i.e. the time taken to convert current assets into cash. The more easily assets can be converted into cash, the more liquid it is. Manufacturing companies with higher turnover of assets need lesser working capital as compared to manufacturing companies having lower turnover. The speeds with which the circulating assets

complete its round determine the adequacy of working capital needs in manufacturing companies.

Table 4.6
Net working capital turnover ratio

Year Co.	2000	2001	2002	2003	2004	2005	Average
ULL	8.952	7.226	5.810	5.054	3.284	3.684	5.668
NLO	1.838	13.870	2.964	1.907	2.025	1.852	4.076
BNL(B)	1.943	3.297	2.861	2.222	2.304	1.893	2.420
BNL (T)	0.402	0.377	0.392	0.391	0.446	1.6932	0.607
Average	**3.284**	**6.193**	**3.007**	**2.394**	**2.015**	**2.265**	**3.193**

Source: annex 21

The overall average networking capital turnover ratio is 3.193. The highest ratio is 13.87 of NLO on 2001 and lowest ratio is 0.377 of BNL (T) on 2001. The average ratio of ULL, NLO, BNL (B) & BNL (T) is 5.668, 4.076, 2.420 and 0.607 respectively. The company should maintain their net working capital turnover ratio. If the companies have less net working capital turnover ratio in that case they have to meet working capital needs by raising capital from suitable sources. At that time they are suffering from excess of current liabilities over current assets. There is a growing need to make best utilization of existing current assets to increase their turnover. Hence the company should have sufficient turnover for their success.

ii. Current Assets turnover ratio

The current assets turnover ratio indicates the adequacy of sales in relation to the investment in current assets. Generally a high current assets turnover ratio indicates efficient utilization of current assets. To find out the utilization of current assets of manufacturing companies, the current assets turnover ratio has been calculated and present below.

Table 4.7
Company average of current assets turnover ratio

Rs. in million

S.No.	Company	Ratio
1	ULL	2.586
2	NLO	2.157
3	BNL(B)	1.127
4	BNL (T)	0.952
	Average	**1.705**

Source: annex 15

The above mention table shows the current assets turnover ratio of the selected manufacturing companies. The overall company average of the study period is 1.705 times. The highest turnover ratio is 2.586 times of ULL and the lowest turnover ratio is 0.137 times of BNL (T). ULL and NLO have higher turnover ratio than overall average. Higher current assets turnover ratio indicates the higher utilization of current assets and lower ratio indicates that the companies have poor current assets management.

iii. Inventory Turnover Ratio

Inventories are the stock of the product, a company manufactures for the sales and the components that make up a product. Inventory is the most important part of the current assets. The shortage of required inventory results irregular production and hamper of the production process and in the other hand excess inventory causes unnecessary holding of capital. It results increase in cost. Inventory ratio measures the liquidity of inventory.   **Table 4.8**

Company average of inventory turnover ratio

Rs. in million

S.No.	Company	Ratio
1	ULL	8.574
2	NLO	7.739
3	BNL(B)	15.854
4	BNL (T)	15.531
	Average	**11.926**

Sources: annex 3 &5

The above-mentioned table shows the inventory turnover ratio of the selected manufacturing companies. The overall average of the companies is 11.926 times. BNL (B) and BNL (T) have higher turnover ratio than overall average i.e. 15.854 times and 15.531 times respectively. The higher turnover shows the higher degree of liquidity of inventory and vice versa.

iv. Receivable Turnover Ratio

Receivable is another major component of current assets. So, its degree of liquidity plays a vital role in the liquidity position of the firm. Thus, the measure of actual liquidity position of the firm remains uncompleted without the analysis of the liquidity of receivables. So, receivable turnover has been used to measure the liquidity position of receivable. It indicates the number of times the receivable is turned out during the year. Higher turnover shows the higher degree of liquidity of receivable and vice versa.

Table 4.9
Company Average of receivable turnover ratio

Rs. in million

S.No.	Company	Ratio
1	ULL	27.616
2	NLO	3.924
3	BNL(B)	13.157
4	BNL (T)	14.382
	Average	**14.770**

Sources: annex 4&5

Here the above given table shows the companies' average of receivable turnover ratio of selected manufacturing companies. The companies overall average turnover ratio is 14.770 times. The average turnover ratio

of ULL, NLO, BNL (B) & BNL (T) is 27.616, 3.924, 13.157 and 14.382 times respectively. The highest turnover ratio is 27.616 times, which is hold by ULL, and the lowest turnover ratio is 3.924 times which hold by NLO. Lower turnover indicates that the companies are not able to collect debt within short period of time. Hence the lower ratio is not good for company.

4.3 Analysis of relationship between working capital variables

The financial performance of manufacturing companies is directly related to their ability to manage working capital, management efficient and effectiveness. The use of financial tools has already given adequate trust in showing the analysis of various variables to determine the working capital management. To make the analysis more fruitful and weight certain statistical tools have been used. Here various problem error and regression analysis is used to show the relationship between the followings.

4.3.1 Relationship between net working capital and profit:

Effective working capital management directly affects the net profit volume of the organization. It can be expected that the way in which working capital is managed will have a significant impact on the profitability of organization. It is regarded as the most important profit indicator. It helps to increase the net profit volume of the company where as weak level of working capital management is the signal of lower level of profit. Thus, it is logical to review the relation of working capital and net profit. For the research purpose, net profit and working capital during study period are averaged to get profit and working variables. After getting profit and working capital variables, then data are analyzed using Pearson's correlation coefficient of the profit and working capital during study period.

Table 4.10
Relationship between net working capital and profit

S.No.	Label	Result
1	Correlation coefficient r_{xy}	0.75
2	Probable error (P.E)	0.02
3	Regression coefficient	0.34

Sources: annex 29

The above table presents the correlation coefficient between net working capital and net profit during study period. The calculated Pearson's correlation coefficient was found 0.75, which shows that there is highly positive correlation. It indicators that net working capital and net profit were found highly related with each other. It means, increasing working capital helps to increase the net profit and vice versa.

To test the statistical significance of the calculated correlation coefficient the probable error is calculate. Since r<6 P.E (r) the value of r is not significant.

The regression line of net profit and net working capital is calculated. For this purpose net working capital is taken as a dependent variable and net profit as an independent variable. The result shows that there is positive relationship between net profit and net working capital. Since the regression coefficient is positive the net working capital management of Nepalese manufacturing companies is found to some extend good.

4.3.2 Relationship between net sales and net working capital

Working capital has high influence on sales of the organization. Effective working capital management helps to increase sales of the organization. If sales increase, profit of organization is also increase and vice versa. Hence, sales are regarded as backbone of organization. It is the important determinant of profit. So, optimal level of working capital helps to maximize their value.

The following table presents the correlation coefficient of the profit and working capital during study period.

Table 4.11
Relationship between Net Working Capital and sales

S.No.	Label	Result
1	Correlation coefficient r_{xy}	-0.3909
2	Probable error (P.E)	0.2333
3	Regression coefficient	-0.7436

Sources: annex 28

The above table presents the correlation coefficient between net working capital and sales during study period. The calculated Pearson's correlation coefficient was found negative, which shows that there is negative correlation between net working capital and sales. It indicates that increasing in working capital brings decrease in sales and vice versa. Hence, organization should maintain their working capital which increase their sales. If sales increase, profit is also increase automatically. P.E is also less than 6, it means, the value of r is not significant.

A regression line is also fitted to show the degree of relationship between net working capital and sales. For this purpose, net working capital is taken as and independent variables(X) and sales as a dependent variables(Y). The result shows that there is negative relationship between net working capital and sales. It also indicates that a rupee increase in net working capital brings Rs.0.7436 decrease in sales. Hence, Nepalese organization should maintain their working capital to increase their sales and maximize their profit.

4.4   Working capital system in Nepalese manufacturing companies

The primary information was used to analyze using appropriate statistical tools. For research purpose, a structure questionnaire was used to collect the data. The structured questionnaire was administered among the view conveniently selected groups. Implied intention of this convenient sampling was to make sample. General findings of the selected sample can be generalized for population.

Questionnaire was designed in five point likert type scales "1= strongly disagree", "2= slightly disagree", "3 = neither agree nor disagree", "4 = slightly agree" and "5 = strongly agree". A mean score above 3 represented voting into positive side while below 3 into negative side.

The analysis and the presentation of the findings are presented in this section of the report under following heading.

4.4.1 Important aspects to make better WCM

Respondents were requested to rank five factors which are important to make better working capital management system in Nepalese manufacturing firms; i.e. Professional management, employee training, good financial planning, government planning, accounting supervision etc. The results are presented in following table.

Table 4.12

Rank of the important aspects to make better working capital system.

S. No.	Variable	Mean rank	O.F (%)	E.F. (%)	$\frac{(O-E)^2}{E}$
1.	Good financial planning	1.56	10.40	20	0.046
2.	Professional management	1.96	12.94	20	0.025
3.	Employee training	3.53	23.63	20	0.006
4.	Accounting standard compliance	3.72	24.80	20	0.012
5.	Government supervision	4.25	28.33	20	0.035
		15	**100**	**100**	**0.118**

Sources: Field study 2006

Note:
) 1 for most important, 2 for second important………….& 5 to the least important

) Hypothesis testing:

Setting hypothesis:
Null hypothesis (**Ho**): The preferences of individuals are same.
Alternative hypothesis (**H1**): The preferences of individuals are different.

Test statistics:

$$x^2 = \sum \frac{(0-E)^2}{E} \quad (x^2 cal = 0.118, x^2\ tab = 9.48\ at\ 5\%L.S.for\ 4DF)$$

From the above table, mean rank shows that respondents rank more important to good financial planning and professional management. It means they give first priority to good financial planning and professional management to make better working capital

management system in Nepalese manufacturing companies. Employee training and account stander compliance were ranked on average level. At last, respondents give least priority on government supervision i.e. 4.25.

Since, calculated $\aleph 2$ is very small than tabulated $\aleph 2$, we strongly accept null hypothesis and concluded that the preferences of individuals are same for above five important aspects to make better working capital system.

4.4.2 Components in working capital management

Four importance components of working capital management were supplied to the respondents to rank them. These components are cash flow management, receivable, inventory and capital budgeting. The results are shown on following table.

Table 4.13
Rank of the important components in working capital management.

S.No.	Variable	Mean rank	O.F (%)	E.F (%)	$\frac{(O-E)2}{E}$
1.	Cash flow management	1.44	14.40	25	0.045
2.	Receivable	2.81	28.10	25	0.004
3.	Capital budgeting	2.84	28.40	25	0.005
4.	Inventory	2.91	29.10	25	0.007
		10	**100**	**100**	**0.061**

Sources: Field study 2006

Note:
) 1 for most important, 2 for second important…& 4 to the least important.

) Hypothesis testing:

Setting hypothesis:
Null hypothesis (**Ho**): The preferences of individuals are same.
Alternative hypothesis (**H1**): The preferences of individuals are different.

Test statistics:

$$x^2 = \sum \frac{(0 - E)^2}{E} \quad (x^2 cal = 0.061, x^2 \, tab = 7.81 \, at \, 5\% L.S. for \, 3 \, DF)$$

From the above table, mean rank shows that respondents rank more important component to cash flow management and second ranked on receivable and capital budgeting. They ranked last to inventory as important component.

Since, calculated $\Re 2$ is very small than tabulated $\Re 2$, we strongly accept null hypothesis and concluded that the preferences of individuals are same for above four important components in working capital management

Effectiveness of working capital in different sector

Respondents were requested to tick the effectiveness of working capital in different sectors i.e. banking sector, trade sector, manufacturing sector and travel tourism sector.

Banking sector

Table 4.14

Effectiveness of WCM in banking sector

Level	Observed N	Expected N	Residual (O-E)	$\dfrac{(O-E)^2}{E}$
Good (male)	18	18.69	-0.69	0.03
Good (Female)	5	4.31	0.69	0.11
Ave. (male)	8	7.31	0.69	0.07
Ave.(Female)	1	1.69	-0.69	0.28
Total	32	32	0	0.49

Sources: Field study 2006

Hypothesis testing:

Setting hypothesis:
Null hypothesis (**Ho**): The preferences of individuals are same.
Alternative hypothesis (**H1**):The preferences of individuals are different.

Test statistics:

$$x^2 = \sum \frac{(O-E)^2}{E} \quad (x^2 cal = 0.49, x^2 tab = 7.81 \ at \ 5\% L.S. for \ 3 \ DF)$$

Since calculated x^2 smaller than tabulated x^2, null hypothesis is accepted in favor of alternative hypothesis and concluded that there is no fluctuation on the view of respondents.

Trade sector

Table 4.15
Effectiveness of WCM in trade sector

Level	Observed N	Expected N	Residual (O-E)	$\frac{(O-E)^2}{E}$
Good (male)	8	8.12	-0.12	0.003
Good(Female)	2	1.87	0.13	0.009
Ave. (male)	14	14.63	-0.63	0.027
Ave.(Female)	4	3.38	0.62	0.114
Poor (Male)	4	3.25	0.75	0.173
Poor(Female)	0	0.75	-0.75	0.750
Total	32	32	0	1.061

Sources: Field study 2006

) Hypothesis testing:

Setting hypothesis:
Null hypothesis (Ho): The preferences of individuals are same.
Alternative hypothesis (H1):The preferences of individuals are different.

Test statistics:

$$x^2 = \sum \frac{(O-E)^2}{E} \quad (x^2 cal = 1.06, x^2 tab = 11.07 \text{ at } 5\% L.S. for \ 5DF)$$

Since calculated $\Re^2$ greater than tabulated $\Re^2$, null hypothesis is accepted in favor of alternative hypothesis and concluded that there is no fluctuation on the view of respondents.

Manufacturing sector

Table 4.16

Effectiveness of WCM in manufacturing sector

Level	Observed N	Expected N	Residual (O-E)	$\frac{(O-E)^2}{E}$
Good (male)	5	4.87	0.13	0.004
Good (Female)	1	1.12	-0.12	0.013
Ave. (male)	15	14.63	0.37	0.009
Ave.(Female)	3	3.38	-0.38	0.043
Poor (Male)	6	6.50	-0.50	0.038
Poor(Female)	2	1.50	0.50	0.167
Total	**32**	**32**	**0**	**0.274**

Sources: Field study 2006

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) Hypothesis testing:

Setting hypothesis:
Null hypothesis (Ho): The preferences of individuals are same.
Alternative hypothesis (H1):The preferences of individuals are different.

Test statistics:

$$x^2 = \sum \frac{(O-E)^2}{E} \quad (x^2 cal = 0.27, x^2 tab = 11.07 \text{ at } 5\%L.S. for 5DF)$$

Since calculated $\mathfrak{R}2$ greater than tabulated $\mathfrak{R}2$, null hypothesis is accepted in favor of alternative hypothesis and concluded that there is no fluctuation on the view of respondents.

Travel tourism sector

Table 4.17

Effectiveness of WCM in travel & tourism sector

Level	Observed N	Expected N	Residual (O-E)	$\frac{(O-E)2}{E}$
Good (male)	3	2.43	0.57	0.134
Good(Female)	0	0.56	-0.56	0.560
Ave. (male)	9	8.94	0.06	0.007
Ave.(Female)	2	2.06	-0.06	0.002
Poor (Male)	14	14.63	-0.63	0.027
Poor(Female)	4	3.38	0.62	0.114
Total	**32**	**32**	**0**	**0.844**

Sources: Field study 2006

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) Hypothesis testing:

Setting hypothesis:
Null hypothesis (**Ho**): The preferences of individuals are same.
Alternative hypothesis (**H1**):The preferences of individuals are

<div align="center">different.</div>

Test statistics:

$$x^2 = \sum \frac{(O-E)^2}{E} \quad (x^2 cal = 0.84, x^2 tab = 11.07 \text{ at } 5\% L.S. for 5DF)$$

Since calculated $\mathfrak{N}$ greater than tabulated $\mathfrak{N}$, null hypothesis is accepted in favor of alternative hypothesis and concluded that there is no fluctuation on the view of respondents.

4.4.4 Determinant of working capital management

Respondents were requested to rank six determinants of working capital management: production policy, Nature of Business, profit level, Credit policy, growth and expansion and price level change. They ranked as follows

<div align="center">

Table 4.18

Rank of the important determinant of working capital management.

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S.No.	Variable	Mean rank	O.F. (%)	E.F. (%)	$\frac{(O-E)^2}{E}$
1.	Nature of business	2.03	9.66	16.67	0.038
2.	Production policy	2.72	12.94	16.67	0.008
3.	Credit policy	3.38	16.09	16.67	0.0002
4.	Profit level	3.91	18.61	16.66	0.002
5.	Growth and expansion	3.97	18.90	16.66	0.003
6.	Price level change	5.00	23.80	16.67	0.030
	Total	**21.01**	**100**	**100**	**0.0812**

Sources: Field study 2006

Note:

1 for most important, 2 for second important………….& 6 to the least important

) Hypothesis testing:

Setting hypothesis:
Null hypothesis (Ho): The preferences of individuals are same.
Alternative hypothesis (H1):The preferences of individuals are different.

Test statistics:

$$x^2 = \sum \frac{(0-E)^2}{E} \quad (x^2 cal = 0.0812, x^2 tab = 11.07 \ at \ 5\%L.\ S.for\ 5DF)$$

Mean rank shows that respondents ranked that the variables "Nature of business" and "production policy" as important determinant of working capital management. Price level change is ranked last i.e.5.00. It means they give less important to price level change.

Since, calculated $\Re 2$ is very small than tabulated $\Re 2$, we strongly accept null hypothesis and concluded that the preferences of individuals are same for above six important determinants of working capital management

4.5 General descriptive of the items for the development of WCM system.

There were 8 variables designed to assess the development of working capital management system in Nepalese manufacturing sector. Five point likert scales was designed to measure the variables. Mean and stander deviation of the variables are present in the following table.

Table 4.19

Descriptive statistics of the items for the development of WCM system

Variables	F	Std. Dev.	C.V (%)
Management should be professional	4.56	2.06	45.18
Employee should be trained	4.50	2.15	47.78
Government should provide guideline and support	3.78	1.90	50.26
Management should be responsible towards investors	4.13	2.32	56.17
Accounting system should be effective	4.47	2.16	48.32
Management should focus on the new technology	4.44	2.09	47.07
Appropriate information system should be implement	4.38	2.34	53.42
Effective trade credit policy should be applied	4.31	2.21	49.19

Sources: Field study 2006

Above table shows lowest standard deviation in the variable "Government should provide guide and support". It means most of the respondents are strongly agree on this statement. The second lowest standard deviation can be observed in the variable "Management should be professional",. Third in the "Management should focus on the new technology", fourth in the "Employee should be trained" the highest in terms of standard deviation among eight variables. Another four variables have also higher standard deviation. The result shows that the respondents are varied and highly fluctuates.

4.6 Nepalese manufacturing companies with effective/poor working capital management in respondents' view

Respondents were requested to list the name of manufacturing companies with effective working capital management. Different respondents give different names of manufacturing companies. Most of the respondents list Dabur Nepal, Uni lever limited, Bottlers and Nepal Lube Oil etc as effective working capital management. And most of the respondents list Harishiddi Brick Factory, Hetauda Cement, and Arun Banasbati Udhayog etc as poor working capital management. Different respondents give different suggestion to improve the working capital management in Nepalese manufacturing companies. The main problems of manufacturing companies are lack of resources, untrained employee and unstable government policies. Hence, such problem should be improved to maintain working capital management in Nepalese organization.

4.7 Findings:

4.7.1 Finding from the secondary analysis:

The major finding of the study during the period of six years of ULL, NLO, BNL (B), & BNL (T) from the analysis are summarized as followed;

1. The ratio of cash to Current assets is varied among the manufacturing companies during the study period from 2000 to 2005. Maximum holding of Cash to CAs is 0.310 times of ULL and minimum ratio is 0.016 times of NLO. Here, the higher investment in cash means higher idle fund in the company and the lowest investment in cash means unable to meet its maturing liabilities on times.

2. The overall company average of receivable to CAs ratio is 0.293 times. The highest ratio is 0.606 times of NLO and the lowest ratio is 0.111 of ULL. Only NLO has the ratio above the average and rests of them have ratio below the average.

3. The overall company's average of inventory to CAs ratio is 0.315 times. The highest ratio is 0.389 of BNL (B) and the lowest ratio is 0.273 of NLO.

4. The overall company's average of current assets to total assets is 0.720 time . The highest ratio is 0.844 of NLO and the lowest ratio is 0.497 of BNL (B). Higher level of current assets indicate good liquidity position of the firm but at the same time it reversibly affects on the profitability of the firm.

5. There is also varying on Net Working Capital of different manufacturing companies. The overall average of Net Working Capital is RS 197.37 million. The highest Net Working Capital is RS.260.80 of ULL and the lowest Net Working Capital is RS 54.13 million of NLO.

6. The liquidity position of Nepalese manufacturing companies is not similar among different companies. But all of these companies have satisfactory ratio. The overall average current ratio is 1.98 times, which is near to 2:1. Hence, CR is satisfactory. The highest CR is 2.1 times of NLO and the lowest ratio is 1.79 of ULL.

7. The overall average ratio of Current assets turnover is 1.705 times. The highest current assets turnover ratio is 2.586 of ULL and the lowest Current assets turnover ratio is 0.952of BNL (T). Highest turnover of current assets is always desirable as it indicates the maximum utilization of current assets.

8. The overall inventory turnover ratio is 5.67 times. The highest inventory turnover ratio is 8.57 of ULL and the lowest ratio is 2.91 of BNL (B).

9. The overall receivable turnover ratio is 14.77 times. The highest receivable turnover ratio is 27.62 of ULL and the lowest ratio is 3.92 of NLO. The lowest receivable turnover means the company can't collect their debt on time or on short period. Hence, the company should maintain their ratio.

10. The overall average percentage of net profit to sales is 0.063 time i.e. 6.36%. The highest percentage of net profit to sales is 8% of BNT (T) and the lowest percentage is 2.7% of NLO.

11. The overall average percentage of net profit to total assets is 0.071 times i.e. 7.1%.The highest percentage of net profit to total assets is 13.3% of ULL and the lowest percentage is 2.2% of NLO.

12. The overall cash conversion period is 188.26 days. The highest cash conversion period is 243.72 day of NLO and the lowest cash conversion periods is 2.73 day of ULL. NLO, BNL (B) and BNL (T) have higher cash conversion cycle than overall average and ULL has very low cash conversion cycle than average. Higher and lower cash conversion period is not good for the company. Such volatile cash conversion period shows that there is no consistent working capital policy in Nepalese Manufacturing companies.

13. The major findings on statistical tools are presented below:

    i. The analysis shows that the correlation coefficient between net working capital and sales is negative. It means increase in working capital brings decrease in sales and vice versa. It

means organization should maintain their working capital to increase their sales.

ii. There is highly positive relationship between net profit and net working capital. It means, increasing working capital helps to increase the net profit and vice versa. The above result shows that positive net working capital management of Nepalese manufacturing companies find to some extend good.

4.7.2 Findings from the primary analysis

In the same way, the researcher also attempted to find out the future policies, strategies and practices of Nepalese manufacturing companies by supplying a structured questionnaire. The questionnaire based on five point likert type scale "1= strongly disagree and 2= strongly agree". The findings from the questionnaire are as follow.

1. Respondents were requested to list the name of three manufacturing companies with effective working capital and three manufacturing companies with poor working capital. Different respondents listed different name of manufacturing companies as effective working capital. But most of the respondents listed Dabur Nepal, Unil Lever, Bottlers and Suraya Tobacco etc as good working capital. They listed the companies as poor working capital management is Harishiddhi Brick Factory, Hetauda Cement and Jyoti Spinning Mills etc.

2. There are different aspects which make better working capital management system. They are professional management, employee training, good financial planning, government supervision, accounting stander compliance. The respondents rank first to good financial planning, professional management for second. They ranked last for government supervision. It means they give less priority to government supervision. The calculated chi-square is 0.118 and tabulated chi-square 9.48 which concludes that there is no significance difference on the opinion on 32 respondents.

3. The respondents give first priority to cash flow management as a important components of working capital management and give last priority to inventory. Receivable and Capital budgeting are ranked second and third respectively. The calculated chi square is 0.061 & tabulated chi-square 7.81 which concludes that there is no significance difference on the opinion on 32 respondents.

4. Most of respondents said that there is good working capital management in banking sector, trade sector, manufacturing sector, and travel & tourism sector because of the calculated chi-square is smaller than tabulated chi-square (0.49<7.81, 1.06<11.07, 0.27<11.07, 0.84<11.07 respectively) .

5. There are different determinants of working capital management. They ranked first to nature of business and second production policy and last ranked to price level. It means they give less priority to price level. Calculated chi-square is 0.812 and tabulated chi-square is 11.070. It means the views of respondents are not fluctuating.

6. There are also variables designed to assess the development of working capital management system in Nepalese manufacturing sector. The variable "Management should be professional" has highest mean (4.56). It means most of the respondents are strongly agree on this statement. "Government should provided guideline and support" has find the lowest in terms of mean among 8 variables. The result shows that the responses fluctuate highly.

CHAPTER – V
SUMMARY, CONCLUSION, AND RECOMMENDATION

5.1 Introduction:

This chapter summarizes the whole study, draws the major findings and forwards the recommendation for efficient working capital management of Nepalese manufacturing companies listed in NEPSE.

Present was designed to find out the working capital management adopted by Nepalese manufacturing companies. It was also aimed to assess the relationship of working capital sales and net profit. Besides, the researcher also tried to know the impact sales and net profit on working capital. Another aim of the study was to find out the future polices and practices of working capital management and its various effecting factors. To meet the stated objectives of the study, the researcher followed various research methods.

5.2 Summary:

The first chapter focuses the brief introduction of the study and plan of the study. It also introduced about the concept and highlights the importance or significance of this research. This chapter basically presented research issues, basic objectives of the study and limitation of the study. Finally, it presented organizational structure of the study.

The second chapter dealt with literature review helped the researcher to provide knowledge about the development and progress made by the earlier scholars on the concerned topics or field of study. It also helped the research work, undertaken by researcher. It discussed about some

related concept used in this study. It also summarized the findings of previous literature to provide knowledge about the background of the work done by earlier research work and to step duplication of the previous work. Besides, earlier international researcher related to the concept is also attempted to review the findings.

The third chapter dealt the research method to analyze the data. This chapter includes research design, nature and sources of data, sample and population of survey design; data collection and processing techniques and procedures and various tools and techniques employed to analyze the data.

Presentation and analysis of data are studied in the fourth chapter. In this chapter, the generated data were presented in tabular form and analyzed it systematically as per requirement. The researcher attempted to analyze the working capital policies and practices adopted by Nepalese's manufacturing companies i.e. ULL, NLO, and BNL. The relationship of working capital to sales and net profit and the further polices and strategies about working capital management should be found out. To know the working capital management of Nepalese manufacturing companies, the size, growth and efficiency of working capital has analyzed and interpreted. Companies overall net working capital is RS 197.37 million. Similarly, the structure of working capital indicated that the proportion of inventory to current assets, proportion of receivable to current assets, proportion of cash to current assets and proportion of other current assets to current assets are 31.50%, 29.30%, 11.30% and 27.60% respectively. The researcher also attempted to find out the relationship of net working capital on sales and net profit based on six-year data trend of manufacturing companies during the study period. The data showed that the correlation between working capital and net profit and between working capital and sales are 0.75 and −0.3909 respectively. Similarly, it also shows that the regression analysis

of net profit and net working capital and working capital and sales are 0.34 and –0.7436 respectively.

In the same way, the researcher also attempted to find out the future policies, strategies and practices of Nepalese manufacturing companies by supplying a structured questionnaire. The questionnaire based on five point likert type scale "1= strongly disagree and 5= strongly agree".

Basically, require of working capital is influenced by the nature of its business. Trading and financial firm required the very large sum of working capital and they invest the small amount in fixed assets. Similarly, the manufacturing firm requires a significant level of working capital and fixed assets. But in public utility or service providing organization, they hold a very limited working capital because a cash nature of their business and partly of their selling service instead of commodity and there is no need of maintaining big inventories & receivables

The organization needs various types of current assets. The major components of current assets are cash, receivables, inventory, sundry debtor and bank balances. The organization may keep different types of current assets in different levels. Some organization may keep inventory in a large amount, some may keep sundry debtor and some may cash and bank balances. It is depend upon the nature of business. There are various factors that affect in working capital of the organization. They are size of business, government strategy, profit level, price level, management system and nature of business etc.

The last chapter dealt the summary of the study and its conclusion. At last, recommendation of research also dealt in this chapter.

5.3   Conclusion

Present study is successful to meet the stated objectives designed for the study. Various financial as well as statistical tools are used as per requirement of nature of data. Primary as well as secondary source of information are used for analysis of data.

The researcher attempted to analyze the working capital policies and practices adopted by Nepalese manufacturing companies i.e. ULL, NLO and BNL. To know the working capital management, the size, growth and efficiency of working capital has analyzed and interpreted. Companies overall net working capital is Rs.197.37 million. The proportion of inventory to current assets, receivable to current assets, cash to current assets and other current assets to current assets are 31.50%, 29.30% 11.30% and 27.60% respectively.

Similarly, the relationship of Net working capital on sales and net profit are also analyzed. There are highly positive relationship between net profit and net working capital i.e. 0.75. It concluded that increasing working capital helps to increase the net profit and vice versa. But the result shows that there is negative relation between net working capital and sales i.e. − 0.7436. It means, organization should maintain their NWC.

In the same way, primary analysis is also conduct to find out the future polices strategies and practices of Nepalese manufacturing companies. Different types of questions are asked to the respondents. There are different components which affect the WCM. Respondents give first

priority to cash flow management and last priority to inventory. Similarly, they ranked last to price level, the calculated chi-square is 0.0812 and there is no significant difference on the view of respondents. At last, appropriate policies and practices are essential to maintain working capital.

5.4   Recommendation

Present study can be a valuable piece of research works in working capital management topic. It explored the existing situation and identified the various components for further improvement in working capital management. Both primary as well as secondary source of information are used for fulfilling the objectives. It may be useful for academicians, practitioners, and any other who are directly or indirectly involved in manufacturing sectors. Based on the findings of the study, the researcher recommended highlighting the guidelines to put forward for further improvement.

1. Higher and lower cash conversion period is not good for the company. Cash conversion period of ULL, NLO, and BNL are also varying. Such volatile cash conversion period shows that there is no consistent working capital policy in Nepalese manufacturing companies. Hence, organization should focus on cash conversion period to make effective working capital policy.

2. Effective working capital directly affects the net profit and sales. There is highly positive correlation between working capital and profit but there is negative relation between working capital and sales. Hence, Nepalese organization should maintain optimal level of working capital.

3. For effective management of working capital, Nepalese manufacturing companies should develop appropriate information system by preparing a timely report which helps to determine the needs of working capital.

4. Nepalese manufacturing companies should increase the efficiency of employees by providing different programs like personnel training, seminar, workshops etc. It helps to develop the skill of manpower. The skilled manpower decreases the operating costs and increases the profitability with compare to unskilled manpower.

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