

CHAPTER- I

INTRODUCTION

1.1. BACKGROUND

An organization needs not only the fixed assets but also the current assets (CA). Working capital is the capital needed to run day-to-day operations of a business, such as wages, freight, raw materials etc. If all these expenses, which are to be incurred on short-term or day-to-day basis, are put together, it is called working capital.

The working capital is the capital needed to conduct the day-to-day operation of a business. Proper financial management is of great importance for any business enterprises from the point of view of achieving success. In this respect working capital plays a significant role in every aspect, and more so, in enterprises whose structure and function depends up on it. Lack of knowledge about managing working capital causes harm to the organization working capital whether excess or less is dangerous for the company. So it has to be managed in such a way to be just adequate for maintaining solvency and containing the business.

Working capital (W/C) is the difference between resources in cash or readily convertible into cash (Current Assets) and organizational commitments for which cash will soon be required (current liabilities).

There are two concepts of working capital gross concept and net concept alternatively called Gross Working Capital (GW/C) and Net Working Capital (NW/C). GW/C or Gross concept of W/C refers to the total CA that is total of cost accounts receivables, inventories, prepaid expenses and short-term investments. The net concept of working capital or net working capital is simply an excess of current assets over current liabilities $NW/C = CA - CL$.

The choice of a particular concept will depend upon the purpose in view of the two concepts. The net is more useful if the purpose is to find out the liquidity position of an enterprise. If, the interest lies in finding out whether the total current assets of an enterprise are being put to maximum use the gross concept is more preferable. The

gross concept is more relevant for a new company because it has to decide how much money should be invested in the form of cash receivables and inventories so as to begin its operation. The net concept is more relevant for an ongoing concern however both concepts are important for any business organization. The net concept arises due to negligence of CL in gross concept, which is as important as current assets. The gross concept emphasizes that excessive investment in current assets affects profitability, as ideal investment yields nothing. Similarly an inadequate investment in current assets makes it difficult to carry out day-to-day operation of the business smoothly.

Working capital management involves the relationship between a firm's short-term assets and its short-term liabilities. The goal of working capital management is to ensure that it has sufficient ability to satisfy both maturing short-term debt and upcoming operational expenses. The management of working capital involves managing inventories, account receivables, payable and cash.

Working Capital Cycle:

Cash flows in a cycle into around and out of a business. It is the business lifeblood and every manager's primary task in to help keep it flowing and to use the cash flow to generate profits. If a business is operating profitably, then it should in theory generate surplus cash. If it doesn't generate surpluses the business will eventually run out of cash and expire.

The faster a business expands, the more cash it will need for working capital and investment. The cheapest and best sources of cash exist as working capital and investment. The cheapest and best sources of cash exist as working capital right with in business. Good management of working capital will generate cash will help improve profits and reduce sinks. Bear in mind that the cost of providing credit to customers and holding stocks can represent a substantial proportion of a firm's total profit.

There are two elements in the business cycle that absorb cash inventory (stocks and WIP) and receivables (debtors owing money) The main sources of cash and payable (creditors) and equity and loans.

Each component of working capital (namely inventory, receivables and payables) has two dimensions: time and money. When it comes to managing working capital "Time is money". If you can get money to move faster around the cycle (e.g. collect money due from debtors more quickly) or reduce the amount of money tied up (e.g. reduce inventory levels relative to sales), the business will generate more cash or it will need to borrow less money to fund working capital. As a consequence, you could reduce the cost of bank interest or you'll have additional free money available to support additional sales or growth or investment. Similarly, if you can negotiate improved terms with suppliers e.g. get longer credit or an increased credit limit; you effectively create free finance to help fund future sales.

If you collect receivable (debtors) faster then you release cash from the cycle if you collect receivables (debtors) slower your receivables soak up cash. If you get better credit (in terms of duration or amount) from suppliers then you increase your cash resources. If you shift inventory (stocks) faster then you free up cash. If you move inventory (stock) slower then you consume more cash. It can be tempting to pay cash, if available for fixed assets e.g. Computers plant, vehicles etc. If you do pay cash, remember this.

Working Capital Management is a crucial aspect of financial management of an enterprise. It refers to administration of all aspects of CA and CL. It includes that type of capital, which circulates from one to another form in ordinary conduct or business.

Working capital management plays vital role every business organization whether they are trading or manufacturing concerns. It is lifeblood and controlling nerve centre for any type of business. Without proper control no business organization can run smoothly. Working capital management plays vital role in maximizing the value of an enterprises.

The inefficient management of working capital will lead to loss of profit in short run but it will ultimately lead to downfall of the enterprises in the long run. A deeper understanding of the importance of working capital cannot be to material saving in the economic use of capital but can also assists in furthering ultimate aim of business. An excessive position investment in working capital will lower the rate of

return while inadequate investment will hamper the solvency position and growth there by affecting the smooth operation of business. Working capital management is not an end in itself. It is an integral part of the departments overall management. The needs of efficient working capital management must be considered in relation to other aspects of the department's financial and non-financial performance.

Working capital management is important aspects of manufacturing companies that have so far developed country. Among all available option proper management of working capital is the possible option to improve their operational variability. The success or failure of any business organization is dependent up this sort of efficiency in its working capital management.

Every manufacturing firm needs various types of assets to run the production process without any interruption. Some assets are required to meet the need of regular production and some to meet the expenses and short-term obligation of a firm. So management has to manage properly different types of assets especially required to run the operation of the firm smoothly. To run daily production activities of the company besides the manpower, equipment etc, one of the major components is working capital without which other things are useless.

So, this study focuses on how working capital management is managing in Nepalese manufacturing companies. The W/C management practices in the Nepalese manufacturing enterprises provide totally different picture. The past trend of many manufacturing companies had given emphasis in fixed assets. So that many manufacturing companies are facing financial difficulties and lower efficiency.

W/C can be regarded as the lifeblood of the enterprises. It refers to the administration of all aspects of the CA and CL. It includes that type of capital, which circulates from one to another form in the ordinary conduct of business. It plays vital role in every business organization. Whether they are trading or manufacturing concerns. As the management of CA and CL of business organization in necessary for day-to-day operation it plays the key role in the success or failure of on org. It has been seen in practice that due to volatility in nature and heavy investment in CA, it has accounted a substantial amount of financial managers time in managing such

assets. So maintaining optimum level of W/C is the crux of the problem as it is strongly related to other trade off between risk and return. In such circumstances an utmost case should be taken in the management of such assets. The aspect of determining appropriate proportion of CA in the structure of total assets comes under the preview of W/C policy. The unnecessary blocking of W/C, administrative negligence in day-to-day operation and serious liquidity problem are the main causes for the failure of manufacturing companies in Nepal. Most of the Nepalese manufacturing companies are operating in loss though they are following aggressive approach of w/c management.

In order to complete the givens in the market, W/C management is the most vital part of any firm. Since it affects all functional areas of any firm, the firm should have the sound W/C management in order to survive in the market working capital practice in Nepal.

The government policy to concentrate more on fixed capital has over looked the financing of W/C. So in order to increase the culture of risk bearing ability through commercial prudence and professionalism, the aspect of W/C should be dealt in the same way as the fixed capital while deciding the capital structure of the manufacturing companies.

Until recently, the aspect of W/C concerned with short-term financial decisions has not received much attention in the literature of finance. Because the earlier emphasis of financial management was more on long-term financial decision, it led to the growth and of many useful theories concerning long-term decision compared to short-term financial decision.

In recent years it has been realized that the areas of W/C intricately interwoven with the success or failure of enterprises. Today one may come across with situation where shortage of funds for W/C as well as the uncontrolled over expansion of W/C has caused many businesses to fail and has started their growth and this aspect of financial management is equally applicable to the small as well as large-scale enterprises. The only difference is that small firm working capital management can be

the factor that decides success or failure whereas in larger firm efficient W/C management can significantly affect the firm's risk and return and share price.

1.2 STATEMENT OF THE PROBLEM

Working capital management decision is a significant managerial decision. Most of the Nepalese enterprises are still facing the problem of working capital managers due to the unprofessional manpower. Managers still focus their attention on the procurement aspect of W/C but not on the efficient utilization of funds defined in term of W/C.

To achieve the goal of over all business, the determination of W/C should be as accurate as possible. It means money invested in W/C should be neither more nor less because both position of W/C affect not only liquidity but also profitability of organization. In the most of enterprises the management of W/C has been misunderstood as the management of money and manager found over conscious about the burden of money rather than its efficient utilization, a change (1988) regarding the management of W/C sources most of the enterprises have never thought seriously. They are usually found to depend on H.M on even for over-coming the shortage of W/C in spite of trying to manage W/C need from their own sources. Some of public enterprises have, used depreciation fund and utilized surpluses to over come the poverty of W/C.

The companies applying conservative policy of managing W/C put more emphasis on long-term financing the reference obtained received fund from long-term low profitability and high liquidity position aggressive policy of managing W/C emphasizes on short term fund. Therefore required fund obtained from short-term sources this policy has high risk, high rate of return high profitability low liquidity position. Average policy of managing W/C applies middle of conservative and aggressive policy. That means it used both long term and short-term fund.

1.3 Research Questions

Basically this study will try to find out the issue of W/C management of selected listed manufacturing public enterprises. In this study we will analysis the following questions.

- 1) Have the selected listed manufacturing public companies invested in CA appropriately to their total assets?
- 2) What is liquidity position of these companies?
- 3) What is the structure of w/c of these companies?
- 4) Are CA properly used in these companies?
- 5) Is the composition of working capital in manufacturing companies is appropriate?
- 6) Is overall profitability of firm satisfactory?

1.4 OBJECTIVE OF THE STUDY

These companies were being able to manage its CL. its crucial implication overall risk return situation wealth minimization goal of these companies were interesting to study its obvious that the failure and success of these companies has drastic impact over Nepal's national economy.

The main objective of the study is to examine the W/C management of selected companies. The specific objectives are as follows.

- 1) To assess the level of current assets and liabilities of the selected companies.
- 2) To analyze the profitability position of selected enterprises with respect to working capital.
- 3) To determine structure and utilization of W/C of these companies.
- 4) To analyze the relationship between working capital variables.
- 5) To provide suggestion and recommendations to improve working capital management.

1.5 SIGNIFICANCE OF THE STUDY

To run business organization smoothly in the short run as well as long run sound financial performance is a prerequisite factor. Analysis of different component of assets like each inventory, debtors, receivable, outstanding expenses and liabilities like payable creditors, short-term debt bank over draft are important for the evaluation of financial performance of any enterprises. W/C is a circulating capital, which is compared as lifeblood of the human beings. These are so many tools and techniques to evaluate the financial strengths and weakness of company analysis and interpretation is one of them without investment in working capital production, there is no question of distribution, marketing and profit. So investment in W/C management is essential for any manufacturing and non-manufacturing organization.

A sound financial performance is important for the growth. Since the public enterprises in Nepal are running in losses, it is necessary that their financial management practices be improved to yield fair rate of return on the capital employed on them.

W/C management decision is significant managerial decision. The success or failure of a business organization depends upon its strategy regarding W/C because it directly affects liquidity and profitability position of the company. So it is significant to know the position of liquidity and profitability. Following are the major significance of the study in W/C management:

- 1) This study will help to know the liquidity position.
- 2) It will provide guidelines to manage the balance and co-ordinate its day-to-day operations.
- 3) This study will help to maintain optimum level of W/C in future.
- 4) This study will help to know the profitability position
- 5) This study will help to know the structure of W/C.

1.6 LIMITATIONS OF THE STUDY

Every research has its own boundary. In the same way this study has also some boundaries, which cannot be ignored. These boundaries are called as limitations of this study.

The main limitation of the study is unreachable data of Nepalese organization. Beyond this there are other limitation also which are as follows: -

- 1) Only 5 companies have been selected for the study so the findings may not be generally applicable to the overall scenario of working capital management situation in Nepal.
- 2) Published secondary data provide information of given year period only.
- 3) The study is based on Tribhuwan University's prescription for the master's thesis.
- 4) Lack of financing is also another limitation.
- 5) Limited resources in terms of limited time, data, and financial resources.

1.7 Organization of the study

This study has been divided into five chapters. These are as follows:

1. **Introduction:** The first chapter deals with background, evaluation of industrial development in Nepal, a brief over view of the selected manufacturing companies listed in NEPSE, the focus of the study, statement of the problem, objectives of the study, limitations of the study and organization of the study.
2. **Literature Review:** The second chapter deals with the conceptual framework like concept, types, policy, determinants, review of relevant research studies and related dissertations.
3. **Research Methodology:** The third chapter contains research methodology employed in the study. It includes introduction, research design, nature of data, tools of data analysis and definition of key terms.

4. **Presentation And Analysis Of Data:** The fourth chapter contains presentations and analysis of data. In this chapter, data are collected through balance sheet and profit and loss account and are presented in tables. Analysis and interpretation of data have been performed thereafter.

5. **Summary, Conclusion and Recommendation:** The fifth chapter contains summary and conclusion of the study. After that all necessary recommendations are presented.

At the last part of the study, a bibliography has been included. All necessary appendices are also included after bibliography.

CHAPTER- II

REVIEW OF THE LITERATURE

2.1 CONCEPTUAL FRAMEWORK

The study of W/C behavior occupies an important place in financial management. W/C is a cost rolling nerve center of every business organization because no business can run smoothly without the proper control upon it. Thus it plays the crucial role in the success and failure of the organization. The management of the funds of business can be described as financial management. Financial management is only concerned with two aspects i.e. FA and FL in other words long term investment and sources of funds secondly current uses and source of funds. Both of these types of funds play a vital role in business finance.

The term W/C management is closely related with short-term finance and it is concerned with collection and allocation of the resources. It is related to the problems that arise in attempting to manage the CA, CL and the inter-relationships that exist between them. (Smith 1974, 3-5)

There are two concepts regarding the meaning of W/C. According to one concept W/C is meant for the CA only that concerned nothing with the liabilities side. According to another concept W/C is meant for the CA only that concerned nothing with the liabilities side. According to another concept W/C is the excess of CA over CL. The former concept which can be termed as gross concept is important to newly established companies where liabilities have not been acquired immediately but latter one which can be termed as net concept is important for both newly established and operating concerns where some amt of CL has been maintained for payment of different creditors income taxes bills payable, secured and unsecured loan etc. The term CA refers to those assets, which in the ordinary course of business can be or will be turned into cash within one year. Without undergoing a diminishing in value and without disturbing the operations of the firm such as cash marketable securities, account receivables and inventory etc CL as intended at their inception to be paid in

the ordinary course of business such as account payable, Bank OD and outstanding expenses etc. The difference between CA and CL is known, as W/C. W/C is that portion of firm's CA financed with long-term fund. Both liquid assets and liabilities are important in W/C management.

W/C refers to the resources of the firm that are used to conduct operation to do day-to-day work that makes the business successful. Without cash bills, the firm cannot allow timing difference between delivering goods or services and collecting the money to pay for them, without inventories the firm cannot engage in production nor can it stock goods to provide immediate deliveries and result of the critical nature of the management of W/C is one of the most important area in determining whether the firm will be successful. The term W/C refers to the CA of the firm those items that can be converted into cash within a year. Net W/C is defined as the difference between CA and CL (Hampton and wagner, 1989, 3-4)

W/C management is a process of short-term decision-making regarding to CA and CL affecting the long-term operation of an enterprise. It is a process of planning and controlling the level of mix of CA of the firm as well as financing these assets. It includes decision regarding cash and marketable securities, receivables, inventories and CL with an objective of maximizing the overall value of a firm.

W/C management is the effective lifeblood at any business. Hence management of W/C plays a vital role for existence of any public enterprises successfully. It is the center of the routine day-to-day administration of CA and CL so that W/C management in public enterprise is very important mainly for four reasons. Firstly public enterprises must need to determine the adequacy of investment in CA otherwise it could seriously erode their liquidity base. Secondly, they must select the type of CA suitable for investment so as to raise their operational efficiency. Thirdly they are required to as center in the turnover of CA, which determine the profitability of the concern. Lastly they must find out the appropriate sources of fund to finance the CA, proper management of W/C as per need of business firms. It should be in good health and efficiently circulated to have adequate healthy and efficient circulation of W/C by properly determined to its various segments effectively controlled and regularly received. (Agrawal. N.D)

2.2 REVIEW OF RELATED STUDIES

This part of mainly focused on the review of books, articles, journals published and different thesis, which is relating to this thesis. Different writers have some different theoretical insight into W/C management after their various research studies.

Dr. Pradhan (Pradhan 1986) has published a book on "Management of W/C of Public Enterprises (PE)". This book is based on the study of nine manufacturing public enterprises of Nepal for the duration of ten years from 1973-1984 A.D. He has aimed to provide useful insight into the existing and forthcoming corporations on W/C behaviors. In this study he has death with various issues viz. type of W/C policy followed by those PEs, liquidity positions, structure of W/C, nature of W/C utilization and demand for W/C and its various components with changes in volume of sales in this PEs. In the study he reveals the fact that most of the selected enterprises achieved a trade of between risk and return thereby following neither an aggressive nor a conservative approach. Almost all the selected PEs had a positive net W/C but much of the growth in net W/C might, however, be attributed to inflation. The growth in net W/C at deflated prices has been much lower. The liquidity measures showed a poor liquidity position in majority of PEs. It has been noticed that the enterprises had either negative cash flows or craning before tax, or they had excessive net current debts, which could not be paid within a year.

Of the CA, this is an average, half of the total assets in PEs. The share inventories is the largest followed by receivables and cash. There had been an improvement in utilization of CA in the majority of PEs. He also noticed that the adjustment speed of actual to desire balance had been observed as highest for cash followed by inventories. However the speed of adjustment was much slower in all these cases. The results were therefore surprising as the adjustment of even cash holding was not immediate. Furthermore, the inclusion of capacity utilization in the models did not seem to have contributed much to the demand functions of W/C and its various components.

Thus, capacity utilization as significant variable affecting these demand function was doubtful. This book thus provides an extensive and comprehensive survey on the overall liquidity position W/C policy. W/C utilization and demand function of the CA. (Pradhan 1986)

For the W/C management I.M. Pandey (Pandey 1982) has described some conceptual ingredients, which are based on his various research studies. He has inspected various aspects of W/C management into 5 chapters. The first chapter deals with the concepts of W/C, needs of W/C, determinants of W/C, dimension of W/C management, optimum level of CA. and W/C trends in India. In the second chapter he has described the management of cash and marketable securities where he has dealt with the facts of cash management motives for holding cash, cash planning, managing the cash flows, determining the optimum cash balance investment in marketable securities. In third chapter he has described the optimum credit policy, credit producers for individual accounts. Fourth chapter is on inventory management, inventory management techniques, selective inventory control technique and financial manager's role in inventory management. On fifth chapter he has described Jordon Committee recommendation.

The management needs to determine the size of W/C as accurately as possible. It should be neither over invested nor under invested. There is no precise way to determine the exact amount of CA for any firm. For that, the data and problems of each company should be analyzed. There is no specific rule to finance CA keeping in view the constraints of the individual company; a proper mix of long term and short term sources of finance should be invested in CA. For an organization, therefore, it is necessary to pay proper attention to the relevant factors, which generally influence the W/C requirement of the firm. Such determinants of W/C differ from one enterprise to another. Some of the most common and important of W/C differ from one enterprise to another.

A firm then taking those determinants under consideration, should determine optimum size of investment in each type of current e.g. cash receivables and investor. Those factors affect different enterprises differently and also vary from time to time.

All factors are of separate importance and also the importance of the factors change for a firm over time.

A firm can have different level of CA to support the same level of output. Its proportion upon the fixed assets of the firm indicates the W/C policy of the firm namely conservative and aggressive in two extreme ends. Dividing CA by fixed assets FA give CA to FA (CA/FA) ratio assuming a constant level of FA, a higher CA/FA ratio means an aggressive CA policy assuming other factors to be constant. Higher level of CA implies greater liquidity and solvency of the firm. There is less risk of technical insolvency, but a considerable amount of fund will be tied up in CA, which cause to lower the profitability. On the other side to have a higher profitability, a firm can take an aggressive CA policy maintaining lower of CA, which will lower the solvency of the firm and the level of risk in the same manner. Thus the reasonable approach is balance the cost of maintaining CA and risk associated in such a way that the trade of between risk and return is minimized. (Pandey 1982)

Van Horne (Van Horne 1994) has categorized the various components of W/C i.e. liquidity, receivables and inventories and CL and grouping them according to the way they affect valuation. He has also described the different methods for efficient management of cash and marketable securities and various models for balancing cash and marketable securities. For management of receivable different credit and collection policies have been described and various principals of inventories have been examined for inventory management and control.

The study presented a risk return trade off W/C management. Despite useful frame work proposed by him. Its practical use can be considered as limited. Its limited use is due to the difficulty in obtaining reliable information mainly about the profitability distributions of liquid assets balance, the opportunity cost and the probabilities of running out of cash of for all future period and or each alternation. Furthermore, the number of assumptions made in the study makes it difficult to apply the analysis in real life situations. For example, it is not possible to follow the same proportion of debt-equity ratio whatever the firm the study ended with the general proposition that the risk return trade off would finally depend on the management

attitude towards risk. For all these reasons the van home study is of little practical value despite and useful framework proposed therein. (Van, Horne, 1994)

2.2.1 RELATED JOURNALS AND ARTICLES

In Mr. Shrestha's (Shrestha 1883:1-4) article, he has described the conceptual ingredients concerning the W/C, such as conceptual setting sources of W/C and types of W/C. From the analysis that the liquidity and profitability position of those enterprises, he found the four PEs had maintained adequate liquidity position two has excessive and remaining had failed to maintain desirable liquidity position. On the turn over, four had adequate turnover, one had high turnover and remaining three had not satisfactory turnover on net W/C. He had also found that out of ten PEs, six PEs were operating at losses while only four were getting some percentage of profits. After analyzing these constraints he had brought certain policy issues. They are as follows.

- ❖ There is a lack of suitable financial planning for determining their needs in PEs.
- ❖ The managers of PEs were being unable to give attention to W/C management.
- ❖ There exists so proper consistency between liquidity position and turnover of assets
- ❖ PEs being unable to show positive relation ship between turnover and return on net W/C.

He had made some suggest five measures to overcome from above policy issues i.e. identification of needed funds, regular checks, development of management information system. Positive attitude toward risk and profit and determination of right combination of short term and long-term sources of fund to finance W/C needs (Shrestha 1883: 1-4)

Mr. Pradhan (Pradhan 2000,144) has light on W/C, as "There are two way of financial W/C requirements, i.e. internal and external sources. Internal sources include use of retained running, depreciation found and share capital. External sources include trade credit, advance from customer, short term deposits cash credit, short-term govt. loan etc. Generally a sources or combination of various sources of financing to be used depends on the types of CA (Permanent and variable) to be maintained. The long term sources such as stock issues, debt and bonds are appropriate to use for the permanent type of CA only if the spontaneous type of short term sources are not required sized of permanent CA. Types of financing may be distinguished into three groups which are as follows:

1- **Long term financing:-** The sources of long term financing include long term debt (i.e. term loan and bonds) common stocks, and preferred stock and retained earnings.

2- **Short term financing:-** It includes short term bank loan notes payable line of credit, overdraft factoring, pledging, blanket lien etc. Those are obtained for period less than one year.

3- **Spontaneous financing:-** It includes operating sources like trade credits accounts payable accurate etc.

A company can follow three approaches on mix of short term and long term source of financing namely conservative, aggressive and moderate approach. If more short-term funds are used in financing current and fixed assets, it can be considered and aggressive approach. Conservative approach refers to more use of long term financing which is less risky than aggressive approach. Moderate approach is finance variable CA by short term source. In W/C management an important aspect is matching the type of financing with the type of assets. However the degree of managerial aggressiveness often guides in choosing a certain combination of short and long term financial for W/C. (Pradhan 2000, 144)

2.2.2 REVIEW OF THE BOOKS

By reviewing some books some special characteristics of the W/C are written they are as follows.

Types of W/C

W/C can be divided into following categories on the basis of necessities.

A. Permanent W/C:

The permanent W/C may again be classification into regular W/C and reserve margin.

a- Regular W/C: Regular W/C is the minimum amount of liquid capital needed to keep up the circulation of capital from cash to inventories to receivable and bank again to cash. (Chiuminatte, 1953:6). As business expands the requirements of regular W/C also increase.

b- Reserve margin: Reserve margin W/C represents the excess amount over the need for regular W/C. This W/C should be provided for unexpected and extraordinary needs.

B. Temporary or variable W/C:

W/C, which is temporarily or intermittently employed, should be called variable W/C (Butcheet and Hicks, 1948:478). Variable W/C is the additional amount of CA, particularly cash receivables and inventories that is required during the more active duration of business.

C. Negative W/C:

If the CL is larger than the CA the difference will be called as W/C deficit. "If CL exceed CA, then the W/C is clearly a negative quantity" (Batly, nd: 108).

Excess of CL over CA means negative W/C, a negative liquidity that is disastrous for a company.

Factors determining working capital

The following factors are pertinent for having an overall view of the factors affecting W/C needs.

- a- **Nature of Business:** W/C requirements for a company are basically related to the kinds of business it conducts public utilities have the lowest requirement for CA because they have only cash sales and supply services, not products in manufacturing companies stock in trade represents a large investments trading and financial firms require a large sum of money as W/C.
- b- **Size of business:** The size of business also have an important bearing in determining W/C needs of a firm. A firm with large scale operation will need more W/C than smaller firm.
- c- **Manufacturing cycle:** It has a great impact on W/C needs because the shorter the manufacturing period efficiency in production, the lesser the need of W/C to finance in W/C and vice versa.
- d- **Business fluctuations:** The situation whether an enterprise is operating in boom or recession and depression period also determine the W/C need of the enterprise.
- e- **Production Policy:** The policy whether to follow uniform and level production plan or varying production plan determines the W/C needs of the individual enterprise. Naturally a firm following uniform production policy requires higher amount of W/C and vice versa.
- f- **Credit policy and availability of credit:** If fund are readily available from banks or credit facilities or it follows conservative sales policy then such firm needs lesser amount of W/C and vice versa.
- g- **Growth of expansion of Business:** A growing firm has to invest funds in fixed assets in order to sustain its growing production and sales. This will increase investment in CA to support enlarged scale of operations. It will required more W/C

- h- **Cash requirements:** Cash is one of the CA which is essential for the successful operations of the production cycle. Cash should be adequate and properly utilized adequate cash is also required to maintain good credit relation.
- i- **Changes in Technology:** Technological development related to the production process have a sharp impact on the need for W/C. Changes in technology will need additional amount of W/C due to fresh investment in new fixed assets.
- j- **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 high quality product and has a sound marketing management and enjoys monopoly power in the market then it earns quite high profit and vice versa. Profit is a source of W/C because it contributes, toward the W/C as a pool by generating more internal fund.
- k- **Level of Taxes:** The level of taxes also influences W/C requirement. The amount of taxes to be paid in advance is determined by prevailing tax regulations. But the firm's profit is not constant or cannot be predetermined. Tax liability in sense of short term liquidity is payable in cash. Therefore the provision for tax amount is one of the important aspects of W/C planning. If tax liability increases it need to increase the W/C and vice versa.
- l- **Other Factors:** Absence of co-ordination in production and distribution policies in a company leads to a high demand for W/C. The import policy of the government may also effect the requirement of the W/C for the companies, as they have to arrange for importing goods at specified times.

Need for W/C

The need for W/C cannot be overemphasized. The firm's aim is to maximize the wealth of the shareholders. The firm should earn sufficient return from its operation. The extent to which profit can be earned naturally depends upon the magnitude of sale among the other things. For constant operation of business, every

firm needs to hold the W/C component such as cash receivable, inventory etc. Therefore every firm need W/C to meet the following to motive.

- 1- **The transaction motive:** Transaction motive require a firm to hold cash and inventories to facilities smooth production and sale operation. Thus, the firms need W/C to meet the transaction motive.

- 2- **The precautionary motive:** Precautionary motive is the need to hold cash and inventories to guard against risk unpredictable change in demand and supply forces and other factors such as strike, failure of important customer, unexpected slow down in collection of account cancellation of some order for goods and some other unexpected emergency. Thus, the firm needs the W/C to meet any contingency in future.

- 3- **The Speculative motive:** Speculative motive refers to the desire of a firm to take advantage of those opportunities.
 -) Opportunities of profit making investment.
 -) An opportunity of purchase of raw materials at a reduce price on payment of immediate cash.
 -) To speculate on interest rate.
 -) To make purchase at favorable price etc.

Thus the firm needs the W/C to meet the speculative motive.

Another article by Dr. K. Acharya, which is based on finding and conclusions of his D.Phil Thesis, focused W/C management of Nepal Tea Development corporation (NTDC) for eight years from 1975/76 to 1982/83 A.D. In his study, he found that the net W/C of NTDC was negative due to increase in CL. Inventory held the largest portion and it was accumulating in the corporation. The size of receivables of NTDC had also been increasing where as cash balance held by the corporation were insufficient to meet the routine work of the corporation. At the same time, the liquidity position was very poor since CA was less than the CL. The turnover of

inventory receivables and CA were below average. The break-even analysis revealed that the NTDC had been selling mostly below the break-even point. Even variable cost was higher than selling price. Dr. Acharya gave some suggestions regarding this were:

Proper planning of production and sales new credit policy action against the delinquent deals, obtaining loans from any individual or financing institutions. (Acharya, 1988)

Another article relating to W/C management by Dr. R.S.Pradhan on "The demand for w/c by Nepalese corporation" concluded that:

The earlier studies concerning the demand for cash and inventories by business firms did not report unanimous findings a lot of controversies exist with respect to the presence of economics of sale, role of capital and capacity utilization rates and the speed with which actual cash and inventories are adjusted to describe cash inventories respectively. The pooled regression results show the presence of economics of scale with respect to the demand for W/C and its various components. The regression result show the presence of economics of scale suggest strongly that the demand for W/C and its components in a function of both sales and their capital cost. The estimated results show that the inclusion of capacity utilization on the demand for inventories receivables and gross W/C is doubtful. (Pradhan, 1988)

2.2.3 REVIEW OF THE THESIS

So far as the management of W/C in Nepalese manufacturing companies is concerned different management experts have under taken a number of studies. In this section, as attempt has been made to review a number of research studies that have been made by students relating to W/C management in different PEs of Nepal.

Arjun Lal Joshi, (Joshi1986) in his study seeks to have true insight into the W/C management of Biratnagar Jute Mill. The study concerned with management of CA and covers five years period (2036/37 to 2040/41). The study has embodied

various financial ratios for measuring Biratnagar Jute Mills financial viability the study is based on secondary data and limited to gross concept of W/C.

The study has indicated mismanagement of inventory no proper policy of cash holding and heavy dependence on short term bank credit. He has recommended for effective W/C management of Mill by planning realistic turnover target specimen designing effective inventory management program, following production investment approach preparing effective sales plan and exhaustive market research program using short term bank credit up to certain reasonable limit, maintaining optimum cash balance and making proper utilization of accumulated collection debts (Joshi, 1986).

Mr. Shailesh Man Shrestha (Shrestha2049) has carried out another study on W/C management of Dairy Development Corporation (DDC) Nepal. He has analyzed the financial statement of DDC for five years (1985-1989). He has focused on W/C management with respect to cash credit and W/C. For the purpose of the analysis, he has used ratio analysis and test as major tools of the study.

He found the inventory has held the major share of CA followed by cash and receivable respectively. There was the high liquidity position and low level of W/C turnover of DDC. There was no functional relationship between total and CA and receivables. There was no proper relationship between CA and share of inventory (Shrestha, 2049)

Mr. Deependra Raj Sharma (Sharma 1999) was also conducted a study on "A study on W/C management " of Nepal Battery Company Limited (NBCL). He has covered the time period of five fiscal years from 2049/50 to 2053/54. His objectives were to analyze the liquidity composition of W/C, assets utilization, and profitability. He has used secondary data. To obtain the relationship in between various variables, the ratio analysis and Karl Pearson's correlation coefficient have been used.

He has found that of the CA, inventory holds the longest portion followed by miscellaneous CA, sundry debtors and cash balance respectively. Of the CA inventory holds the largest portion of NBCL in a fluctuating trend. Though there is positive

correlation in between W/C and sales, the relationship is insignificant because of fluctuating sales volume. It shows the less utilization of W/C and net W/C. (Sharma 1999)

Mr. Om Bikram Gurung (Gurung 2059) conducted another study on "A study on W/C management of Nepal Lever Limited (N.L.Ltd). He has covered five fiscal years (053/54 to 057/58). He has analyzed the composition of CA and CL, proportion of CA to FA and sales liquidity ration net profit margin and relationship between liquidity and profitability position. The study in based on secondary data and has used ratio analysis on financial tools and coefficient of correlation as statistical tools.

According to him, proportion of CA and CL is highly fluctuating. They are not correlated with each other during study period inventory has held the large portion of CA. The ratio of CL to long-term liabilities is in increasing trend. Receivable turnover and average collection period are also fluctuating during the study period.

Aryal (2002) conducted a study on working capital management in Nepal Telecommunications Corporation to appraise working capital management of Nepal Telecommunications Corporation with to cash, receivables & inventory management. The study analyzed relationship between sales and different variables of working capital. The study was based on financial statement from 1995/96 to 1999/2000. Tools used in the study were financial ratios, trend analysis arithmetic mean, simple correlation, probable error, and coefficient of determination, simple regression analysis and t-statistic. The study concluded that Nepal Telecommunications Corporation was following conservative current assets policy and more than 50% of current assets were financed by long– term sources, cash constituted the largest portion of current assets. Significant positive correlation between current assets and total assets and current assets and net sales supports the proposition that the working capital is dependent upon the volume of sales the size of total assets, growth trend of current assets is faster than total assets and net sales. Current ratio range was 1.90:1 to 2.45:1 with average ratio 2.29:1 whereas average quick ratio was 2.18:1 during the study period. Cash held more than one third of total current assent.

Ghimire's (2003) study on working capital management of selected NEPSE listed manufacturing companies focused on the working capital practices, variables affecting working capital management, and issues and gaps in working capital management. Data used on the study were derived from secondary and primary (interview & discussion) sources. Tools used for analysis were ratio analysis, Altman model, Du Pot analysis coefficient of correlation, probable error and simple linear regression model. The study concluded that most of the selected manufacturing company followed a moderate working capital policy. The ratio of cash to current assets, receivable to current assets, inventory to current assets widely varied among manufacturing company followed a moderate working capital policy. The ratio of cash to current assets, receivable to current assents, inventory to current assent, inventory to current assets widely varied among manufacturing company. The correlation between current assets and current liabilities is highly positive. Similarly current assets and sales, sales and receivable, sales and inventory net profit and working capital, operating cycle to cash conversion cycle are also positively correlated. The study also pointed out that there was inefficient current assets management, less encouraging attitude towards working capital management, excessive borrowing weak liquidity position high conversion cycle and absence of working capital forecast and plan.

Chaudhary (2003) conducted a study on working capital management of Royal Drugs Limited. The objectives of this study were to examine risk– return analysis of working capital, determine the return on working capital, assess the financial liquidity position, to test whether return on net working capital depends upon liquidity (CA/CL), turnover of working capital (S/CA) and profitability of total assets (S/TA). Data used in the study were secondary and primary (Questionnaire). Tools used in the study were financial ratio and multiple regression model-

$$\text{RONWC} = f(\text{CA/CL}, \text{S/CA}, \text{and NPAT/TA}) \dots \dots \dots (2.6)$$

Major findings of study were that Royal Drugs Limited was following moderate working capital policy during the study period. Inventories were the largest portion of current assets and cash the last. Investment in current assets was 2.5 times more than that of fixed assets, current ratio is satisfactory but quick ratio is poor, RONWC and liquidity are insignificantly related to each other. Positive relationship has been found between RONWC and profitability of TA indicates that if RDL could be able to control the operating, it can enhance its profitability in coming days.

Giri has analyzed the working capital management of Dabur Nepal Limited (DNL). He has tried to make an evaluation of working capital management of Dabur Nepal Limited, and has focused on the working capital management with respect to cash credit and inventory management and relationship between sales and different variables of working capital. He has used financial ratio analysis, Karl Pearson's coefficient of correlation 'r' and test of hypothesis. Major findings of this study were high proportion of current assets, unfavorable liquidity position and very low level of cash occupied the major portion of current assets but the share of finished goods stock is very low. Receivable has the second place in current assets and it is continuously growing. Finally he concluded that this company had adopted the moderate financial policy. (Giri R: 2005)

Dhakal has carried out a study on management of working capital in Nepal Telecom (NTC). The objective of the study was to analyze the importance of proper management of working capital and to show the relation between different components of current assets and current liabilities. He has used financial ratio as a major tool in his study. He found high collection period of outstanding debt. He concluded that NTC has tried to maintain high standard of working capital theoretically. Further he found improper financing of current assets and high earning capacity. In this study he has drawn the conclusion that the working capital management of NTC in general is satisfactory. (Dhakal P:2005)

CHAPTER- III

RESEARCH METHODOLOGY

3.1 INTRODUCTION

A systematic research studies needs to follow a proper methodology to achieve the pre mentioned objectives. Research methodology is a sequential procedure and methods to be adopted in systematic study (Kothari, 1984:19). The proper analyzing of the study can be meaningful only on the right choice of research tools that help to come meaningful conclusion. The main objective of this study is to analyze the W/C management of Nepalese manufacturing companies listed in NEPSE. In this chapter the research focus on research design nature and source of data, sample and source of data sample population, tools used for analysis and definition of key term.

3.2 RESEARCH DESIGN

A research design is a plan for the collection and analysis of data. It includes definite procedure and techniques, which guide to sufficient way for analyzing and evaluating. In this study secondary data have been used. This study tries to make comparison and establish relationship between two or more variables. So the research design of this study is based on descriptive and analytical study.

3.3 NATURE AND SOURCE OF DATA

The data used in this study are basically secondary in nature but the required information has been collected through discussion and personal interview with the key personnel and employees. The secondary data have been collected from financial statement, annual reports and from www.nepalstockexchange.com, the official website of Nepal Stock exchange limited. All the collected data and information have been properly synthesized, arranged, tabulated and calculated to reach at the realistic analytical synthesized.

3.4 POPULATION AND SAMPLE

To get the information about W/C management, more representative and comprehensive sample one selected for wide coverage of population. Total number of manufacturing companies listed in NEPSE is 28 among them only 5 companies have been selected for the study as sample.

3.5 ANALYTICAL TOOLS USED

Quantitative method and qualitative method are used for analyzing W/C management in Nepalese manufacturing companies

3.5.1 Quantitative method:

For measuring the effectiveness of W/C management of Nepalese manufacturing companies two important tools under this method can be applied.

3.5.1.1 Financial Tools:

Various financial methods are used to analyze the effectiveness of W/C management manufacturing company. Ratio analysis is widely used tools for financial analysis, which established the numerical or quantitative relationship between two items. It is useful to makes financial expression more meaningful and to draw appropriate conclusion from them.

Under the ratio analysis the following ratio can be analyzed.

A - Composition of W/C:

It is studies by analyzing following ratios:

1- Percentage of CA to TA (CA,TA):

The ratio of CA to TA indicates what percentage of enterprise total assets is invented in the form of CA. It is calculated as:

$$CA TA = (CA \times 100) / TA$$

As the % increases the risk and profitability of enterprises would decrease.

2- Ratio of cash and bank balance of CA (CBCA)

This ratio shows the proportion of cash and bank balance to CA. It is calculated as.

$$\text{CBCA} = (\text{Cash and Bank balance} \times 100) / \text{CA}$$

Higher ratio indicates the poor cash management and vice versa.

3- Inventories to TA (ITA)

This ratio can be calculated as: $\text{ITA} = (\text{Inventory} \times 100) / \text{TA}$. This ratio indicates the % of TA invested in the form of inventories. Increases in inventory increase W/C and vice versa.

4- Inventories to CA (ICA)

This ratio shown the % of inventories to CA and calculated as:

$$\text{ICA} = (\text{Inventories} \times 100) / \text{CA}$$

The increase in the ratio in an indication of weak CA management of the enterprises

5- Receivables to CA (RCA)

This ratio shows the % of CA in the form of receivables. It is calculated as follows:

$$\text{RCA} = (\text{Receivables} \times 100) / \text{CA}$$

B. Liquidity Position:

It is the most important part for the company. It shows the ability of the company to pay in current obligation. The liquidity positions can be computed by analyzing current ratio and quick ratio.

This ratio is computed by dividing CA by CL.

$$CR = CA / CL.$$

The higher the ratio indicates the position of the company is in liquidity and able to pay its bills. Generally the CR of 2:1 is considered to be satisfactory. Higher ratio indicates the greater amount of W/C and vice versa.

1- Quick ratio of acid-test ratio (AR or ATR)

$$QR \text{ or } ATR = \text{Quick Assets} / CL$$

As the quick assets do not include the amt. invested in the inventory it is reliable to measure the company's liquidity. Generally the quick ratio of 1:1 of the company is considered to be sound.

C . Profitability Position:

The main objective of the company is to earn maximum profit. The position of the profitability of the company is analyzed with the help of following ratios.

1- Gross Profit margin Ratio (GPM)

Gross profit is obtained by deducting cost of goods sold from net sales. The ratio can be obtained as

$$GPM = (\text{Gross profit} \times 100) / \text{Sales}$$

The gross profit margin ratio reflects efficiency with which company produces each unit of produce. The higher % indicates the better efficiency of the company.

2- Net profit margin Ratio (NPM)

Net profit is obtained after deducting operating expenses and income tax from gross profit. It is computed as:

$$\text{NPM} = (\text{Net profit after tax} \times 100) / \text{Sales}.$$

3- Return on Total Assets (ROA)

This ratio is computed by dividing net profit after tax by total assets.

$$\text{ROA} = (\text{Net profit after tax} \times 100) / \text{Total Assets}$$

4- Return on W/C (RW/C)

It measures the profit with respect to CA and can be calculated as:

$$\text{RWC} = (\text{Net profit after tax} \times 100) / \text{CA}$$

Higher the ratio higher the utilization of CA to earn and vice-versa.

3.5.1.2 Statistical Tools:

A brief introduction of the statistical tools that have been used in this study is given below.

i - Coefficient of correlation by Karl Pearson's:

Karl Pearson's method is most widely used.

Probable error (PE)

$$\text{Probable error (PE)} = [0.6745(1-r^2)] / N$$

If r is less than its PE, it is not at all significant. If r is more than PE there is correlation. If r is more than 6 times its PE and greater than 0.5 then it is considered significant.

iii) Simple Linear Regression model:

In case of simple linear regression analysis a single variable is used to predict another variable on the assumption of linear relationship between the given variables. The variable to be predicted is called the dependent variable and the variable on which the prediction is based is called the independent variable.

The simple regression equation indicates the amt. of change in the value of the independent variable for a unit change in the dependent variable.

3.5.2 Qualitative method:

Whenever quantitative method is insufficient, opinion survey method will be used to make study more qualitative.

-) A list of question will be asked to fill out paper to the selected persons of the sampled companies on the bases of their replies analysis can be made.
-) Personal interview will be taken with the key person of sampled companies to draw out their reactions for improvements.

CHAPTER- IV

PRESENTATION AND ANALYSIS OF DATA

4.1 INTRODUCTION

Research works are done to know the facts. For these, data are presented and analyzed. After analysis of data conclusions from the data are derive to fulfill the research objectives. The presented data are analyzed using various statistical and mathematical tools.

This chapter, in particular analyzed and interprets the following:

-) The liquidity position of the sampled enterprises.
-) The profitability position of these companies.
-) The working capital structure
-) The turnover position of these companies.
-) The relationship between working capital variables.

4.2 LIQUIDITY POSITION

Liquidity position sources the ability to pay the bills. It depends on its working capital policy. If the firm has aggressive policy, it has low liquidity position while conservative policy has high liquidity position. It reflects the short-term financial strength of the business. The liquidity position of these companies can be analyzed with the help of these rations current ratio and quick ratio.

4.2.1 Current Ratio:

It is the relationship of current assets and current liabilities. Current ratio measures the short-term solvency of the firm in gross term. Current assets are those assets, which can be converted into cash within short period of time not exceeding one year. Current liabilities are those obligations which are payable within a short

period it is also normally not exceeding one year. Current ratio of the related companies for the period of study is calculated in table 4.1 presented below:

Table 4.1
Current ratio of the selected companies

Name of the Cos.	2002	2003	2004	2005	2006	Ave.
JSM Ltd.	0.56	0.91	1.17	1.89	3.73	1.65
BN Ltd.	1.49	1.63	2.57	2.42	14.58	1.94
AVU Ltd.	0.81	0.79	0.86	0.98	---	0.69
NL Ltd.	1.79	1.38	1.33	1.01	1.0	1.30
AVE	1.16	1.18	1.48	1.57	1.58	1.39

Source: SEBON

Table 4.1 show the average ratio of JSM Ltd. is 1.65 times, where BN Ltd. ratio is 1.94 times, AVU Ltd. average ratio is 0.69 and NL Ltd. average ratio is 1.30 times. The average current ratio of all selected companies is less than 2:1. But the principle as such says that the current ratio can be considered perfect one if it appears 2:1 for the individual enterprises. The current ratio is widely fluctuated during the study period. It is fluctuated from 0.56 to 3.73 times, for JSM Ltd. 1.49 to 1.58 times for BN Ltd., 0.81 to 0.98 for AVU Ltd. and 1.79 to 1 times for NL Ltd. Here we see the fluctuation of JSC Ltd. is much wider than other companies. Among them BN Ltd. current ratio position seems quite better up to 2005 which is in increasing trend but it is decreased in 2006. AVU Ltd. current ratio is consistently increased but it is below the standard of 2:1. NL Ltd. current ratio is in decreasing trend. The average ratio of all companies except AVU Ltd. are more than 1:1 which is satisfactory because they able to meet its short-term financial obligation and it is sign of good management of current assets and current liabilities.

4.2.2 Quick Ratio:

The ratio measures the short-term solvency in gross term. It doesn't includes less liquid assets inventories and prepaid, thus it doesn't measure the actual liquidity

position of the firm. So, Quick ratio has been used to measure the liquidity position of selected listed companies in net term. The quick ration computed for selected listed companies are presented in table 2:

Table 4.2
Quick ratio of selected companies:

Name of the Cos.	2002	2003	2004	2005	2006	Ave.
JSM Ltd.	0.074	0.087	0.161	0.054	0.215	0.118
BN Ltd.	0.425	0.2	0.726	0.798	0.361	0.518
AVU Ltd.	0.078	0.122	0.114	0.248	---	0.112
NL Ltd.	0.423	0.831	0.798	0.602	0.48	0.627
AVE	0.25	0.33	0.45	0.43	0.26	0.345

Source : SEBON

Table 4.2 show the quick ratio of all companies in all year in less than 1:1 standard. Quick ratio of companies is fluctuated also. JSM Ltd. has increasing quick ratio to end although it has below the 1:1 standard but it is in increasing trend. BN Ltd. quick ratio in 2004 and 2005 is quit better than other years. But it is nearer to the standard. AVU Ltd. quick ratio is also increasing which sign good condition. The highest quick ratio of NL Ltd. is 0.83 times in year 2003 after 2003 it has been decreasing which is not a good sign.

Although the quick ratio of most of the companies is in increasing trend but all companies quick ratio is below the standard 1:1. So, the companies must think about its composition of CA and CC.

Average Value of CR, QR

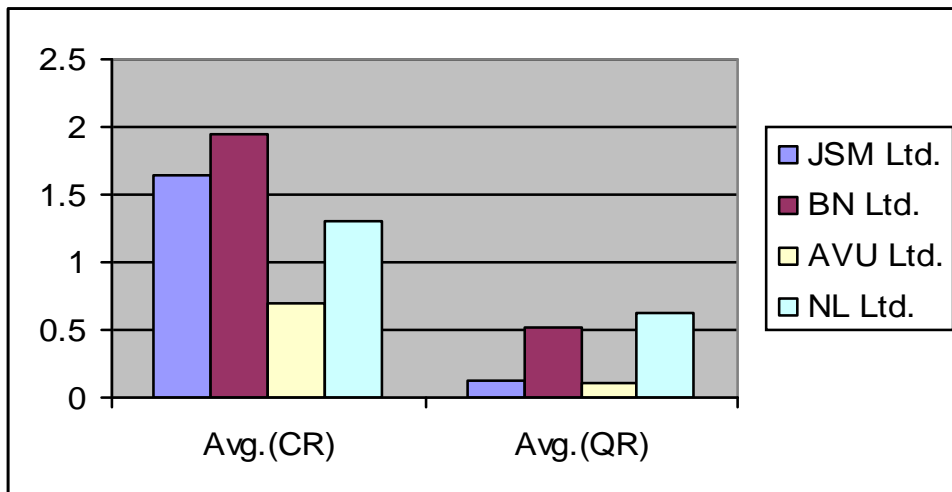


Figure 4.1

4.3 PROFITABILITY POSITION

Behind the establishment of any organization there is the objective of earning profit or getting maximum return on investment profitability ratio shows the overall efficiency of the business concerned the relation of the return of the firm to either its sales or its equity or its assets is known as profitability. The profitability position of these companies can be measured by analyzing its profitability ratios such as net profit margin return on total assets and return on working capital, etc.

4.3.1 Net Profit Margin Ratio:

Net profit is the profit, which comes after deducting expenses and income tax from gross profit and sales. It indicates management efficiency in overall management functions of the firm. A higher ratio is an indication of the higher overall efficiency of the business and better utilization of total resources. Poor financial planning and low efficiency is the indication of lower ratio. The net profit margin ratio computed by following ratio.

Table 4.3

Net Profit Margin Ratio of selected companies

Name of the Cos.	2002	2003	2004	2005	2006	Ave.
JSM Ltd.	-4.4	-0.7	1.2	3.0	-5.5	-1.3
BN Ltd.	9.1	3.7	6.0	5.7	4.1	5.6
AVU Ltd.	2.2	0.06	0.2	-9.3	--	-2.4
NL Ltd.	3.4	7.5	9.4	33.3	16.2	13.9
AVE	2.6	2.5	4.2	12.8	3.7	5.2

Source : SEBON

Table 4.3 shows the net profit margin ratio of selected companies. The table shows wide variation in the average net profit margin ratio maintained by selected companies. It is fluctuated from -2.4 to 13.9%. The average net profit margin ratio has been noticed highest for NL Ltd.(13.9%) followed by BN Ltd.(5.6%),JSM Ltd.(-1.3%) and AVU Ltd.(-2.4%). JSM Ltd. is in loss during the study period. It is in profit in 2004 and 2005. The profit in these years is 1.2 and 3%, which is very low, and rest of the year it was in loss. BN Ltd. profit ratio is 9.1% in 2002 and it is drastically decrease 3.2% in 2003 after 2003 it is in increasing trend, which shows the good utilization of resources. But it is decrease in 2006 AVU Ltd. is also not in good condition during the study period. It is in decreasing trend. First two year it is in profit although it is little bit, but after that it is in loss. NL Ltd. is due its resource maximum in 2005 that is why it earn 33.3%, which is quit good. Its profit trend is increasing. It increased gradually in first three year. After that it increase its profit in picked that is 33.3% in 2005. Suddenly it decreased its profit in picked that is 33.3% in 2005. Suddenly it decreased its profit 16.2% in 2006.

The average ratio of NL Ltd. came highest it is indicates better utilization of total resources and BN Ltd is also utilized its resources better, but the JSM Ltd and AVU Ltd appeared lower profit ratio which indicates poor financing planning AVU Ltd and JSM Ltd should be minimize the operating expenses and increase the sales volume to achieve more profit.

4.3.2 Return on Total Assets:

Return on total assets measures the percentage of return on overall total assets employed for every activity of these companies. It gives the profit earning efficiency of selected companies in relation to total assets. Return on total assets ratio computed by following table:

Table 4.4

Return on total assets of selected companies.

Name of the Cos.	2002	2003	2004	2005	2006	Ave.
JSM Ltd.	-2.8	-0.7	1.2	3.4	-5.6	-0.9
BN Ltd.	4.7	1.9	4.3	3.6	2.4	3.4
AVU Ltd.	3.8	0.09	0.02	-11.0	--	-1.4
NL Ltd.	7.5	11.9	15.0	4.49	24.6	20.8
AVE	3.3	3.3	5.2	0.1	5.4	5.5

Source SEBON

The above-mentioned table 4.4 shows the wide variations in average return on total assets of selected companies. It varied from 1.4% to 20.8%. The highest average ratio has been noticed for NL Ltd. and the lowest is noticed for AVU Ltd. NL Ltd. has highest ratio of 24.6% in 2006. Its ratio is fluctuating very much. In 2002 its ratio is 7.5, in 2003 it increase to 11.9% in 2004 it increase to 15% but in 2005 it unexpectedly decrease it ratio to 4.49 then in 2006 it increased to 24.6%. BN Ltd. ROA is also in fluctuation. In 2003 it is 4.7% in 2003 it decrease to 1.9% again in 2005 it increase up to 4.36% and then gradually it decrease 3.6% in 2005 and in 2006 it decrease in 2.4% JSM Ltd return on total assets is also very fluctuating it is in profit of 1.2, 3.4 respectively in 2004 and 2..5 and other year it is in loss. AVU Ltd. return on total assets is not satisfactory. In 2002 it has 3.8% in 2.3 it is 0.09% in 2.4 it is 0.2% and in 2005 it is -11%. Its profit is not quit satisfactory and it is loss in 2005 too.

All the companies NL Ltd. return is quit satisfactory, but except NL Ltd other companies have less profitability it signifies that inefficiency in the utilization of assets.

4.3.3 Return on working capital:

Determination of working capital needs in manufacturing companies has much to do with the return, which they could achieve from the use of net working capital. Greater the return on net working capital, lesser will be the need for additional working capital. Profitability of listed manufacturing companies greatly affected their working capital needs. In fact the net profit is a source of working capital to extent that it has been earned in cash. The cash profit can be found by adjusting non-cash items like depreciation in net profit. But in practice the net cash available for use at the end of the period. Even as the company's operations are in progress cash is used for augenenting stock, book debts or fixed assets. The return on net working capital of selected listed manufacturing companies is given below.

Table 4.5

Return on working capital of selected companies

Name of the Cos.	2002	2003	2004	2005	2006	Ave.
JSM Ltd.	-10.7	-2.0	3.2	8.7	-14.4	-3.0
BN Ltd.	9.6	3.6	8.4	6.3	5.7	6.7
AVU Ltd.	5.7	0.1	0.3	-14.1	--	-1.6
NL Ltd.	10.7	15.8	19.4	55.3	32.1	26.7
AVE	3.8	4.4	7.8	14.1	5.9	7.2

Sources: SEBON

The table 4.5 shows the wide variation in the average return on working capital ratio maintained by the selected companies. It varies from -3% to 26.7% average return on net working capital ratio of selected companies NL Ltd. BN Ltd. AVU Ltd. JSM Ltd are followed respectively 26.7%, 6.7%, -1.6%, -3%.

NL Ltd. had noticed highest return on net working capital in 2005 which is

55.3. Its return is very fluctuating. First four year it has increasing trend. The trend is in 2002 it is 10.7% in 2003 is 15.8%, In 2004 it is 19.4% and in 2005 it is 55.3% and then in 2006 it decrease to 32.1%. As a whole it is in better condition. Like wise BN Ltd return is also in fluctuating trend. In 2002 return was 9.6% which is decrease to 3.6 in 2003 and increase in 2004 at 8.4% after that it is decrease to 6.3% to 5.7% AVU Ltd return is also in decreasing trend. It decreased 5.7% , 0.1%, 0.3%, -14.1% in 2002, 2003, 2004, 2005 respectively. JSM Ltd. return in increased first four year and decreased in 2006.

From the analysis of data of selected companies it show NL Ltd. is satisfactory and return of BN Ltd is also good but other two companies appeared lesser return or they are in loss which signifies no specific working capital policy and inefficient management of working capital.

Average Value of CR, QR

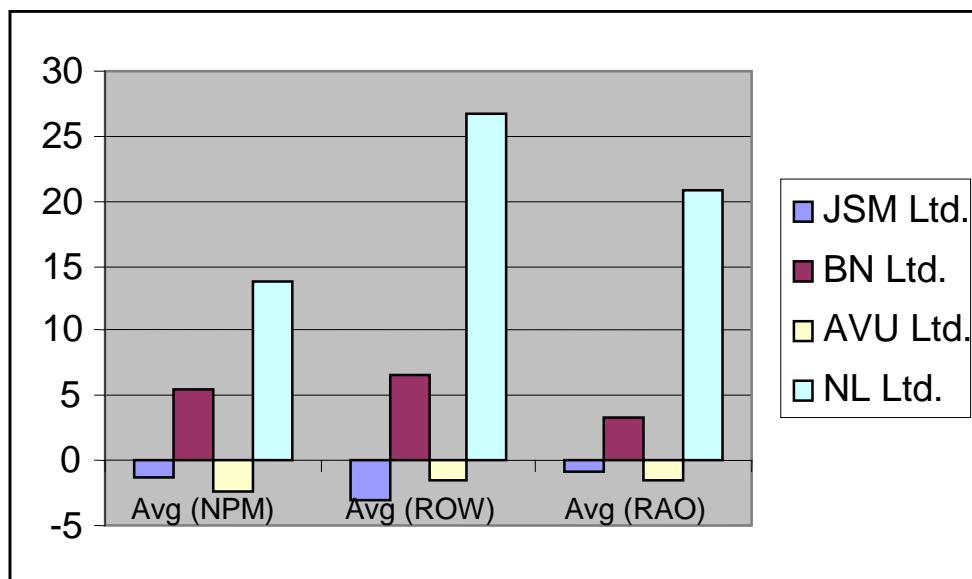


Figure 4.2

4.4 STRUCTURE OF WORKING CAPITAL

The structure of Working Capital management are analyzed by the help of the following ratio

4.4.1 Current Assets to Total Assets:

The requirements of current assets depend on the nature of business current assets are generally required to meet working capital, which are to fulfill the need of daily business requirements. The table given below represents the percentage of current assets on total assets.

Table 4.6
Ratio of current assets to total assets

Name of the Cos.	2002	2003	2004	2005	2006	Ave.
JSM Ltd.	26	34	37	39	39	35
BN Ltd.	49	52	51	57	42	50
AVU Ltd.	67	70	80	79	--	59
NL Ltd.	70	75	77	81	77	76
AVE	53	58	61	64	40	55

Source SEBON.

Ratio of current assets to total assets

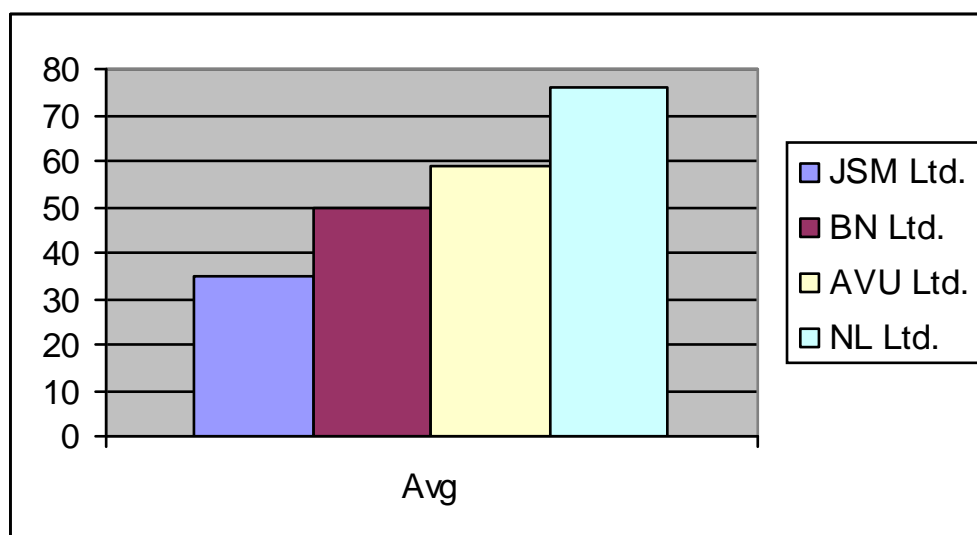


Figure 4.3

The table shows wide variation in ratios most of the company's ratio is in increasing trend. JSM Ltd. ratio is increased from 26% to 39%. Like wise BN Ltd. ratio is increased up to 2005 and in 2006 it is decreased. From 2002 to 2005 it is in

increase from 49% to 57% and in 2006 the ratio became 42% AVU Ltd has the ratio of 67% in 2002 which is increase up to 80% in 2004 and in 2005 it was decrease to 79% NL Ltd ratio is also increased in first four year that means up to 2005 and in 2006 it was decrease. It was increase from 70% up to 81% and decrease to 77%.

From this analysis show that investment in current assets to be significant of these companies higher level of current assets indicate good liquidity position of the firm but at the same time it reversal affects on the profitability of the firm.

4.4.2 Ratio of cash and Bank balance to current assets:

The high ratio of cash to current assets indicates that the current assets are more qualitative or more liquid when current assets loss in value incase of liquidation and there is practically no waiting period for conversion of these assets into usable cash. The ratio of cash and bank balance in current assets for the selected companies are presented below.

Table 4.7

Ratio of cash and bank balance to current assets

Name of the Cos.	2002	2003	2004	2005	2006	Ave.
JSM Ltd.	0.31	0.78	3.28	1.82	1.27	2.092
BN Ltd.	5.82	0.98	3.07	0.35	8.24	3.692
AVU Ltd.	1.68	1.61	1.62	2.24	--	1.43
NL Ltd.	15.52	66.37	61.21	6.62	13.7	32.704
AVE	6.61	17.44	3.80	2.76	5.80	9.97

Source - SEBON

The computed values are presented in table 4.7, which indicates that the average cash to current assets ratio varies widely from one to another companies. It varies from 1.43% to 32.704%.

JSM Ltd ratio of 2002 and 2004 is higher then average ratio of 2.092, where as

in 2003, 2005 and 2006 in less than average ratio. BN Ltd average ratio is 3.69% yearly ratio of BN Ltd in 2002 and 2006 is higher then its average where as others yearly ratio is less than average ratio AVU Ltd yearly ratio is higher in 2002-2005 then average ratio of 1.43%. NL Ltd ratio in 2003 and 2004 in higher then in average ratio, which is 32.704% and rest of the year's ratio, is less than its average ratio.

From this analysis show the ratio appeared highly variability in the study period in every company. It signifies that there are not consistent in holding of cash during the study period. There is no one universal standard for this cash ratio since each company has its own pattern of cash payment, receipt and requirements.

4.4.3 Inventories to current assets ratio:

Inventory is the most important element of current assets. Inventory to current assets ratio shows that percentage of current assets is in the form of inventories. The computed value of inventory to current assets ratio is presented below:

Table 4.8
Inventories to current assets ratio of selected companies

Name of the Cos.	2002	2003	2004	2005	2006	Ave.
JSM Ltd.	48.63	53.72	55.46	63.47	59.47	56.15
BN Ltd.	36.60	41.75	41.31	40.51	40.58	40.15
AVU Ltd.	27.35	25.22	54.45	36.81	--	28.77
NL Ltd.	36.19	31.23	31.72	28.74	41.04	33.78
AVE	37.19	37.98	45.74	42.38	35.27	39.71

Source: SEBON

The computed value are presented in table 4.8 which indicates that average inventory to current assets, varies widely JSM Ltd ratio is in increasing till 2005 and decreased in 2006. It increased from 48.63% up to 63.47% and decreased to 59.47% BN Ltd ratio are not fluctuating much more. It increase 2002-2004 from 36.6 to 41.31 and it decrease up to 40.51 in 2005 and constant in 2006. AVU Ltd ratio is increased. It is 27.35 in 2002 and it increased up to 54.45% in 2004 then it decrease in 2005 to

36.8% NL Ltd ratio is in decreasing trend. It decrease from 36.19% to 28.74 in first four years then in 2006 it decrease at 41.04%.

From this analysis show that these manufacturing public companies have higher percentage of inventory with respect to its current assets. It signifies that these companies have been following liberal inventory policy.

4.4.4 Receivables to current assets ratio:

Account receivable constitutes a substantial portion of current assets. The management of receivable from the viewpoint of liquidity represent prime determines of technical solvency of business organization. Higher degree of receivable result unnecessary help up of working capital and lower degree of receivable may cause negative result in sales level. The ratio of receivable to current assets shows following table.

Table 4.9
Receivable to current assets ratio of selected companies

Name of the Cos.	2002	2003	2004	2005	2006	Ave.
JSM Ltd.	9.8	8.80	10.42	0.86	4.38	6.85
BN Ltd.	22.75	16.18	27.73	14.62	14.60	19.18
AVU Ltd.	7.90	13.77	11.59	23.16	--	11.28
NL Ltd.	8.06	16.45	21.78	15.52	18.40	16.04
AVE	12.13	13.8	17.88	13.54	9.35	13.34

Source: SEBON

The above table mentions average receivable to current assets. The ratio of JSM Ltd varies from 0.86% to 10.42%, 14.60% to 27.73% of BN Ltd. , 7.9% to 23.16% and 8.06% to 21.78%. Which is high variability. Such high variability ratio indicates inconsistent credit policy of receivable.

JSM Ltd receivable to current assets ratio is in fluctuating trend the ratio in 2002 is 9.8% it decrease to 8.8% in 2003 and increase to 10.42% in 2004 and in 2005

it decrease to 0.86 then in 2006 it increase to 4.38%. BN Ltd. ratio are also in fluctuating trend in 2002 it was 22.75% in 2003 it decrease at 16.18% then it again decrease at 14.62% and remain constant in 2006 AVU Ltd ratio was increase in first three year it was increase from 8.06% to 21.78% and in 2005 it was decrease at 15.52%. It was again increase in 2006 to 18.80%.

Average ratio of cash inventory and receivable to current assets

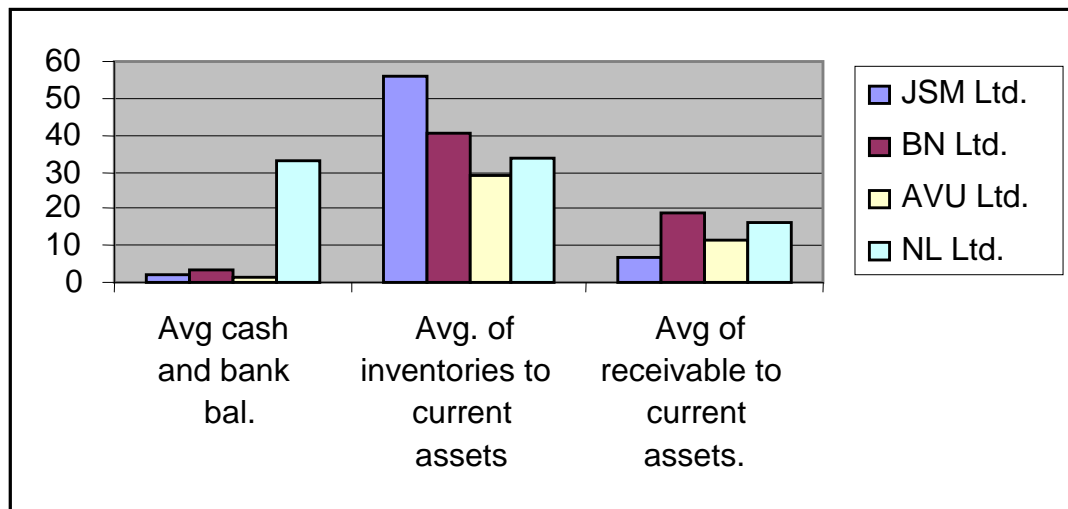


Figure 4.4

4.5 UTILIZATION OF WORKING CAPITAL OR TURNOVER POSITION

The behavior of working capital utilization and improvement can be analyzed with the help of turnover ratio. This reflects the speed and rapidity with which assets are converted into sales that results the efficiency of the enterprise. This ratio measures the degree of effectiveness in use of resources or fund by enterprise. This is based on the relationship between sales and investment in different assets. This section examines the turnover position of selected manufacturing companies.

4.5.1 Current assets turnover or gross working capital turnover:

The utilization of gross working capital or current assets turnover ratio indicates the number of time the current assets are turned over during the year. When this ratio increase overtime one can see the improvement in current assets utilization.

It is computed by dividing sales by current assets. The computed values of the ratio are presented in following table:

Table 4.10
Current assets turnover of selected companies

Name of the Cos.	2002	2003	2004	2005	2006	Ave.
JSM Ltd.	2.40	2.74	2.58	2.94	2.62	2.66
BN Ltd.	1.06	1.12	1.41	1.11	1.43	1.23
AVU Ltd.	2.61	2.10	1.48	1.52	--	1.54
NL Ltd.	3.10	2.10	2.11	1.66	1.98	2.19
AVE	2.29	2.02	1.90	1.81	1.51	1.91

Source: SEBON

The tables 4.10 show that average current assets turnover ratio of the selected companies varies not so widely. It varies from 1.23 to 2.66 times.

Trend of JSM Ltd. is fluctuating. It was fluctuate from 2.40 times to 2.94 times. The highest turnover ratio is 2.94 times in 2005 and lowest in 2002 are 2040. BN Ltd. turnover ratio trend is increasing in first three years and it decrease in 2005 and then increase in 2006. The ratio varies from 1.06 times to 1.43 times. AVU Ltd. trend of turnover ratio is in decreasing trend up to 2004, it decreased from 2.61 times to 1.48 times and it increase 1.52 times in 2006. NL Ltd. yearly turnover ratio is varies widely. It varies from 1.66 times to 3.10 times. Its yearly ratio for last four years is less than average ratio of 2.19 and greatest than average ratio in first year. Higher current assets turnover ratio indicates the higher utilization of current assets and lower turnover ratio indicates that the companies have poor current assets management current assets turnover ratio of Nepalese manufacturing companies is low, which indicates that the utilization of working capital during the study period is low.

4.5.2 Net Working capital Turnover:

The working capital need of listed manufacturing companies 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 speed with which the circulating assets complete its round determine the adequacy of working capital need in manufacturing companies. The table below shows the net working capital turnover ratio of selected companies.

Table 4.11

Net working capital turnover of selected companies

Name of Cos.	2002	2003	2004	2005	2006	Ave.
JSM Ltd.	-3.08	-28.51	17.49	6.22	3.59	-0.86
BN Ltd.	3.22	2.88	2.31	1.90	3.87	2.84
AVU Ltd.	-11.23	-8.07	-9.14	-62.23	--	-18.14
NL Ltd.	7.03	7.62	8.45	157.78	-2370.47	-437.92
AVE	-1.02	-6.52	4.78	25.92	-590.75	-113.51

Source: SEBON

The above table show that out of four companies, three have negative working capital turnover as in the case of JSM Ltd. is -0.86 times, AVU Ltd. is -18.14 times and NL Ltd. is -437.92 times. In the view of negative turnover of net working capital, these manufacturing companies have to meet working capital needs by raising capital from suitable sources. Moreover these manufacturing companies 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.

BN Ltd. enjoy adequate turnover of assets. Therefore for this companies the working capital needs are not very much stressing. Turnover itself is sufficient to generate additional working capital and there is no need of additional sources of financing. The turnover of BN Ltd. is 2.84 times.

4.5.3 Cash Turnover Ratio:

The cash turnover ratio indicates the number of times the cash balance is turned over during the year. A low turnover of cash implies a larger cash balance required and high turnover of cash implies a lower cash balance required cash turnover ratio of selected public enterprises has been computed in following table:

Table 4.12
Cash Turnover Ratio of selected companies

Name of the Cos.	2002	2003	2004	2005	2006	Ave.
JSM Ltd.	72.53	350.26	78.75	161.69	206.46	173.94
BN Ltd.	18.18	114.17	45.94	320.18	17.31	103.16
AVU Ltd.	155.10	130.81	91.79	67.96	--	89.13
NL Ltd.	19.83	3.18	3.44	25.10	14.47	13.20
AVE	66.14	149.61	54.98	143.73	59.56	94.86

Source: SEBON

The above table show the widely variation in cash turnover. It varies from 13.20 times of NL Ltd. to 173.94 times of JSM Ltd.

JSM Ltd. yearly turnover has also wide varies. It varies from 72.53 times to 350.26 times. The turnover ratio of 2002, 2004, and 2005 is less than average ratio of 173.94 times and ratio of 2003, 2006 is greater than average ratio. BN Ltd. ratio of 2002, 2004 and 2006 is less than average ratio of 103.16 times and then rest year it is greater. BN Ltd. yearly ratio varies from 17.31 times to 320.18 times AVU Ltd. yearly ratio varies from 67.96 times to 155.10 times. It is in decreasing trend yearly

ratio of 2002, 2003 and 2004 is greater than average ratio of 89.13 and rest is less. NL Ltd. yearly ratio is varies from 3.18 times to 25.10%. The average ratio of 13.20 times is greater than yearly ratio 3.18 and 3.44 times and other than average ratio. The computed value shows the variation in ratio, which shows inconsistency in holding cash balance.

4.5.4 Inventory Turnover Ratio:

Inventories are the stock of the product a company manufacturers 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 cause unnecessary holding of capital. It results increase in east. Inventory turnover ratio measures the liquidity of inventory.

Table 4.13

Inventory Turnover Ratio

Name of the Cos.	2002	2003	2004	2005	2006	Ave.
JSM Ltd.	4.93	5.11	4.65	4.63	4.41	4.75
BN Ltd.	2.89	2.68	3.42	2.74	3.51	3.05
AVU Ltd.	9.53	8.33	2.72	4.13	--	4.94
NL Ltd.	8.56	6.76	6.64	5.78	4.83	6.51
AVE	6.48	5.72	4.36	4.32	3.19	4.8

Source: SEBON

The above table mention the various from 3.05 times to 6.51 times in average ratio of selected companies.

JSM Ltd. varies yearly ratio from 4.41 to 5.11. It applies decreasing trend except the year 2003, which was increase up to 5.11 times. BN Ltd. yearly ratio varies from 2.68 times to 3.51 times. It has fluctuating trend. There is continuous ups and downs. AVU Ltd. yearly ratio varies from 2.72 times to 9.53 times. It was decreased

till 2004 and again increase thereafter NL Ltd. yearly ratio varies from 4.83 times to 8.56 times. It shows decreasing trend respectively in 2002 - 2006.

4.5.5 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 4.14

Receivable Turnover Ratio of selected companies

Name of the Cos.	2002	2003	2004	2005	2006	Ave.
JSM Ltd.	24.42	31.20	24.77	339.41	59.86	95.93
BN Ltd.	4.65	6.92	5.09	7.60	9.77	6.81
AVU Ltd.	32.99	15.25	12.79	6.57	--	13.52
NL Ltd.	38.43	12.82	9.67	10.71	10.77	16.48
AVE	25.12	16.55	13.08	91.07	20.1	33.19

Sources: SEBON

The above table show receivable turnover ratio of selected companies. The average ratio varies from 6.81 to 95.93 times.

JSM Ltd. average ratio is 95.93 times which is higher than in yearly average of year 2002, 2003, 2004 and 2006. Its ratio varies from 24.42 to 339.41 times. BN Ltd. yearly ratio varies from 4.65 to 9.77 times yearly ratio of 2002 and 2004 is less than average ratio of 6.81 rest is greater. AVU Ltd. yearly ratio shows decreasing trend. It varies from 6.57 to 32.99 times. Its average ratio is 13.52. Last two yearly ratios are less than average and rest is greater. NL Ltd. yearly ratio seems fluctuating trend. Its ratio varies from 9.67 times to 38.43 times. Its average ratio of 16.48 is greater than

yearly ratio of last four year and rest is less.

JSM Ltd. receivable turnover seems good management of receivable. Likewise NC Ltd. is also seems good management. BN Ltd. and AVU Ltd. receivable ratio signifies poor management.

4.6 ANALYSIS ON THE BASIS OF VARIABLES

4.6.1 Level of Current Assets:

The success or failure of any manufacturing firm depends upon the proper management of current assets. The analysis of five listed manufacturing companies taking five years data shows what kind of working capital policy may have followed. The following table shows the level of current assets in four companies.

Table 4.15

Current assets of manufacturing Companies " Rs. in million"

Name of the Cos.	2002	2003	2004	2005	2006	Ave.	SD	CV
JSM Ltd.	280.62	264.24	278.56	291.35	278.49	278.65	8.64	0.031
BN Ltd.	506.43	544.18	447.83	553.16	436.05	497.53	48.17	0.0968
AVU Ltd.	248.63	243.53	434.64	397.85	--	331.16	86.09	0.26
NL Ltd.	399.14	589.88	724.24	891.41	741.61	669.26	165.45	0.2472
AVE	358.71	410.46	471.32	533.44	485.38	444.15		
SD	102.07	157.57	160.49	226.67	192.26			
CV	0.2845	0.3839	0.3405	0.4249	0.3961			

Source: SEBON

While analyzing the current assets level there is wide variation. The table shows that it varies from 264.24 to 291.35 times for JSM Ltd., 436.05 to 553.16 times for BN Ltd., 243.53 to 434.64 times for AVU Ltd. and 399.14 to 891.41 times for NL Ltd.. The variation of level of current assets reveals that manufacturing companies have not maintained consistency in current assets. So, JSM and AVU Ltd.

have been following aggressive approach of current assets management and BN Ltd. and NL Ltd. followed conservative policy.

While going through period wise data JSM and AVU Ltd. have current assets below the average for all five years. BN Ltd. current assets for all the year is above the average except 2006 and NL Ltd. current assets except 2002 is also above the average.

The table shows the standard deviation, which represents the average change in current assets of individual companies in different years. The highest standard deviation is 65.45 of NL Ltd. where as lowest is 8.64 of JSM Ltd. Similarly, BN Ltd. and AVU Ltd. has 48.17, 86.09 respectively.

Coefficient of variations shows the information of current assets of in different years in percentage. The highest fluctuation of 25% of AVU Ltd. and the lowest information is 3.10% of JSM Ltd. So, the current assets of JSM Ltd. are least volatile in comparison to others.

4.6.2 Level of Current Liabilities:

Current liabilities are defined as all the payment that has to be paid by the company within an accounting period. It includes sundry creditors' provision for taxation, unclaimed dividend, provision for bonus, outstanding bills, etc. Firm should maintain level of liquidity in order to enable the organization to meet the current obligation.

Table 4.16

Current Liabilities of selected companies

Name of the Cos.	2002	2003	2004	2005	2006	Ave.	SD	CV
JSM Ltd.	499.21	289.67	237.91	153.91	74.72	251.08	144.07	0.5738
BN Ltd.	340.12	332.85	174.02	228.99	275.49	270.29	62.91	0.2328
AVU Ltd.	306.36	306.93	505.11	407.58	--	381.50	82.41	0.2160
NL Ltd.	223.21	426.45	543.71	882.02	742.23	563.52	231.68	0.4111
AVE	342.23	338.98	365.19	418.13	364.15	366.6		

SD	100.12	57.79	161.39	283.24	279.63			
CV	0.2592	0.1557	0.4419	0.6774	0.7679			

Source: SEBON

There is wide variability in the size of current liabilities for the individual manufacturing company. The higher current liability is Rs. 882.02 of NL Ltd. for year 2005 and lower is 74.72 of JSM Ltd. for year 2006.

The table shows that most of the companies in most of the year are following aggressive approach. The overall average of current liabilities is 366.6m. The average current liabilities of JSM Ltd. and BN Ltd. is lower than overall average so they are following conservative approach of cls. The average current liabilities of AVU Ltd. and NL Ltd. is more than overall average so they are following aggressive policy. The variability in level of current liabilities seems inconsistency in working capital policy.

While going through the standard deviation there is high change in current liabilities of JSM Ltd. by Rs.144.07 where as the lowest change is Rs.62.91m of BN Ltd. Coefficient of variation show the fluctuation of the current liabilities in percentage. Here the table shows high fluctuation of cc of JSM Ltd. by 57.38% where as the lowest current liabilities of BN Ltd. by 23.28%. It shows high volatile, in JSM Ltd.

4.6.3 Size of Net Working Capital:

The net working capital of a firm is the difference between current assets and liabilities. Net working capital indicates a cushion or margin of safety or protection provided to the creditors. The average net working capital position of selected manufacturing companies is computed in the table given below:

Table 4.17

Average Net working capital of manufacturing companies

Name of the Cos.	2002	2003	2004	2005	2006	Ave.
JSM Ltd.	-218.59	-25.43	40.65	137.44	203.78	27.57
BN Ltd.	166.31	211.33	273.81	324.17	160.56	227.24

AVU Ltd.	-57.73	-63.4	-70.47	-9.73	--	-40.26
NL Ltd.	175.93	163.43	180.53	9.39	-0.62	105.73
AVE	16.48	71.48	106.13	115.32	90.32	80.07

Source: SEBON

The above table shows the overall company average of net working capital is Rs.80.07m. The highest amount of net working capital is Rs. 227.24m of BN Ltd. and lowest amount of net working capital is -40.26m of AVU Ltd. JSM Ltd. and AVU Ltd. average net working capital is less than overall average and Bn Ltd. and NL Ltd. average is above the overall average. The liquidity position of AVU Ltd. and JSM Ltd. is very weak. So that the current ratio is very low or far from the standard ratio 2:1.

4.6.4 Cash Conversion Cycle:

Liquidity has two major aspects of ongoing liquidity and productive liquidity ongoing liquidity refers to the inflows and outflow of cash through the firm as the product acquisition, production, sales, payment and collection process taking place over the time.

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 = $360 / \text{inventory turnover}$

Account receivable period = $360 / \text{Account receivable turnover}$

Payable deferral period = $360 / (\text{total purchase}/\text{account payable})$

Table 4.18

Cash conversion cycle

Name of the Cos.	2002	2003	2004	2005	2006	Ave.
JSM Ltd.	83.82	70.56	77.26	76.31	85.07	78.60
BN Ltd.	134.56	82.38	101.97	126.35	54.63	99.98
AVU Ltd.	31.77	56.03	141.93	116.83	--	69.312
NL Ltd.	4.18	39.46	44.78	54.58	74.83	43.57
AVE	63.58	62.11	91.49	93.52	53.63	72.82

Source : SEBON

The overall cash conversion cycle is 72.87 days. The cash conversion period of individual company is widely varied during the study period. The higher cash conversion period is 141.93 days of AVU Ltd. In the year 2004 and lowest cash conversion period is 4.18 day N L Ltd in the year 2002 AVU Ltd and NL Ltd cash conversion period is less than overall cash conversion period. Cash conversion of JXM Ltd is near to the overall period. B N. Ltd cash conversion period is greater then average. It seems that JSM Ltd cash conversion period is less volatile in comparison to other companies. Higher and lower cash conversion period is not good for the company. Such volatile cash conversion period show that there is no consistent working capital policy in Nepalese manufacturing companies.

4.7 RELATIONSHIP OF WORKING CAPITAL VARIABLES

The financial performance of manufacturing companies is directly related to their ability to manage working capital, management efficiently and effectively. 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 weighty certain statistical tools have been used. Here various problem error and regression analysis are used to show the relationship between followings.

4.7.1 Relationship between net working capital to sales:

Following analysis shows the correlation between net working capital and sales based on yearly averages.

Year	NWC(x)	Sales (y)	(x-x̄)x	(x-x̄) ²	(y-ȳ)y	(y-ȳ) ²	(x-x̄)(y-ȳ)=xy
2002	16.48	773.23	-63.59	4043.69	-30.96	958.52	1968.75
2003	71.48	772.73	-8.59	73.79	-31.46	989.73	270.24
2004	106.13	880.09	26.06	679.12	75.9	5760.81	1977.95
2005	115.31	889.28	35.24	1241.86	85.09	7240.31	2998.57
2006	90.93	705.6	10.86	117.94	-98.59	9719.99	-1070.69
	x̄=80.07	ȳ=804.19	--	x ² =6156.4	--	y ² =24669.36	6144.82

$$\begin{aligned} \text{ft } A_x &= \sqrt{\frac{\sum f_x^2 A}{N}} \\ &= \sqrt{\frac{6156.4}{5}} \\ &= 35.09 \end{aligned}$$

$$\begin{aligned} \text{ft } A_y &= \sqrt{\frac{\sum f_y^2 A}{N}} \\ &= \sqrt{\frac{24669.36}{5}} \\ &= 70.24 \end{aligned}$$

To show the correlation between net working and sales Karl Pearson's coefficient of correlation (r) is determine. For this purpose, net working capital and sales are inter related variables. So that both variables relation are explored. Let us calculate the "r" to show the relationship between them.

Correlation coefficient
$$r_{xy} = \frac{\sum xy}{\sqrt{\sum x^2 \cdot \sum y^2}}$$

$$\begin{aligned} & \times \frac{6144.82}{\sqrt{6156.4 \times 24669.36}} \\ & = 0.499 \end{aligned}$$

The value of r is +0.499. Which show that there in highly positive correlation between net working capital and sales. A highly positive correlation coefficient indicates the strong positive relationship between net working capital and sales i.e. increase in net working bring increase in sales and vice versa.

To test the statistical significance of the calculate correlation coefficient that probable error (P.E. Calculated below).

$$\begin{aligned} PE(r) & \times \frac{0.6745(1 - r^2)}{\sqrt{n}} \\ & \times \frac{0.6745(1 - 0.499^2)}{\sqrt{5}} \\ & = 0.2267 \\ 6PE & = 1.36 \end{aligned}$$

Since $r < 6PE$ the value of r is not significant. A regression line also can be fitted to show the degree of relation between NWC and sales. For this purpose, NWC are taken as an independent varriable and sales as a dependent variable. The regression line of sales (y) on NWC (x) is given below.

$$\begin{aligned} f_y & \times \frac{r \cdot f_x}{f_x} (x - x^2) \\ y & = 804.19 + 0.499x \frac{70.24}{35.09} (x - 80.07) \\ y & = 724.21 + x \end{aligned}$$

The regression coefficient indicates that there exists positive relationship between net working capital and sales. It also indicates that the rupee increase in NWC brings Rs. 1 increase in sales.

4.7.2 Relationship between current assets to sales:

The relationship between current assets and sales is calculated as follows.

Year	NWC(x)	Sales (y)	(x-x̄)x	(x-x̄)=x ²	(y-ȳ) y	(y-ȳ)=y ²	(x-x̄)(y-ȳ)=xy
2002	358.71	773.23	-65.15	4244.52	-30.96	958.52	2017.04
2003	410.46	772.73	-13.4	179.56	-31.46	989.73	421.56
2004	471.32	880.09	47.46	2252.45	75.9	5760.81	3602.21
2005	533.44	889.28	109.58	12007.77	85.09	7240.79	9324.16
2006	345.38	705.6	-78.48	6159.11	-98.59	9719.99	7737.34
	x=423.86	y=804.19	--	x ² =24843.41	--	y ² =24669.36	xy=23102.31

$$\dagger_x X \sqrt{\frac{x^2}{N}}$$

$$X \sqrt{\frac{24843.41}{5}}$$

$$= 70.49$$

$$\dagger_y X \sqrt{\frac{y^2}{N}}$$

$$X \sqrt{\frac{24669.36}{5}}$$

$$= 70.24$$

Karl Pearson's coefficient of correlation "r" is used to find out the correlation between current assets and sales. It can be calculated as follows.

$$r_{xy} X \frac{xy}{\sqrt{x^2 \cdot y^2}}$$

$$X \frac{23102.31}{\sqrt{24843.41 \times 24669.39}}$$

$$= 0.933$$

The value of r is +0.933, which shown that there is highly positive correlation between current assets and sales.

To test the significance of correlation coefficient the probable error is calculated as below.

$$PE(r) \times \frac{0.6745(1 \sum r^2)}{\sqrt{n}}$$

$$\times \frac{0.6745(1 \sum 0.933^2)}{\sqrt{5}}$$

$$= 0.03892$$

$$6PE = 0.2338$$

Since $t > 6$ PE the value of r is highly significant. There is no doubt that if sales increase the investment in current assets will also increase and vice versa.

To show the degree of relationship between current assets and sales a simple regression line is drawn below for this purpose current assets are assumed dependant upon sales.

The regression line of current assets (x) and sales (y) is as follows.

$$x \sum x^2 \times \frac{r \cdot \sum x}{\sum x} (x \sum x^2)$$

$$x \sum 423.86 \times \frac{0.933 \times 70.49}{70.24} (x \sum 804.19)$$

$$x \sum 329.12 \Gamma 0.936y$$

The result indicates that if one rupee increases in sales the amount of current asset will also increase by re 0.936. It means that to support the additional sales of re 1 the management should invest Re 0.49 in current assets.

4.7.3 Relationship between net profits to net working capital:

The relationship between net profit and net working capital are as follows:

Name of the cos	Net Profit (x)	Net w/c (x)	(x-x̄)x	x ²	(y-ȳ)	y ²	xy
JSM Ltd.	-8.22	27.57	-62.8	3943.84	-52.5	2756.25	32.97
BN Ltd.	33.10	227.24	-21.48	461.39	147.17	21659.01	-3161.21

AVU Ltd.	-8.13	-40.26	-62.71	3932.54	-120.33	14479.31	7545.89
NL Ltd.	201.57	105.72	146.99	21606.06	25.65	657.92	3770.29
	54.58	80.07	--	299943.83	--	39552.49	11451.92.

The relationship between net profit and net working capital is showing by the following calculation.

$$\dagger_x \times \sqrt{\frac{x^2}{N}}$$

$$\times \sqrt{\frac{29943.83}{5}}$$

$$=77.39$$

$$\dagger_y \times \sqrt{\frac{y^2}{N}}$$

$$\times \sqrt{\frac{39552.49}{5}}$$

$$=88.94$$

The value of r is +0.3328 which show that there is highly positive correlation between net profit and net working capital.

$$r_{xy} \times \frac{xy}{\sqrt{x^2 \cdot y^2}}$$

$$= \frac{11451.97}{\sqrt{29943.83 \times 39552.49}}$$

$$= 0.3328$$

To test the significance of correlation coefficient the probable error is calculated as below:

$$PE \times \frac{0.6745(1 - Zr^2)}{\sqrt{n}}$$

$$= \frac{0.6745(1 - 0.3328^2)}{5}$$

$$=0.2682$$

$$6PE = 1.6095$$

Since $r < 6PE$ the value of r is not significant. It show that the increase in net working capital may not increase net profit. To show the degree of relationship between net profit and NWC a simple regression line is down below assuming net profit depended

upon NWC.

The regression line of net profit (x) on NWC (y) is as follows:

$$x = \frac{r \cdot \frac{\sum x}{n}}{\frac{\sum y}{n}} (y - \frac{\sum y}{n})$$

$$x - 54.58 = 0.3328x \frac{77.39}{88.94} (y - 80.07)$$

$$x = 0.2896y + 31.39$$

Since the regression coefficient is positive the NWC management of Nepalese manufacturing companies is found to some extent good.

4.8 MAJOR FINDINGS OF THE STUDY

The major findings of the study are as follows.

4.8.1 Working capital management of Nepalese companies is analyzed with the help of various key ratios. The main findings from the analysis are given below:

- (1) The liquidity position of Nepalese manufacturing companies. The liquidity positions of B N Ltd. JSM Ltd. and NB Ltd are good. All these companies average current ratio lies in between 1 to 2 and can considered on average but the ratio of AVU Ltd is 0.69 which much lower then compare to standard ratio of 2:1. The current ratio is widely varied among the individual companies. But the yearly average of current ratio lies around the overall average. The quick ratio of all companies in below the standard of 1:1.
- (2) The average % of net profit to sale is 5.2%. The average highest % of net two company are in loss similarly the overall company average of return on total assets is 5.5%. The highest % is 20.3% of NL Ltd and the lowest % of AVU Ltd is -1.4%. JSM Ltd and AVU Ltd increasing loss. B.N. Ltd % of return on net working capital is 6.7%.

- (3) There is no consistency in the company average of current assets to total assets. The overall company average of current assets to total assets is 55%. Here the highest ratio is 26% of N L Ltd where as the lowest ratio is 35% of JSM Ltd. Higher level of current assets indicate good liquidity position of the firm but at the same time it reservedly affects on the profitability of the firm.
- (4) The ratio of cash to current assets widely varied among the manufacturing companies during the study period from 2002 to 2006. Maximum holding of cash to current assets is 32.704 times of NL Ltd. and minimum ratio is 1.43 times of AVU Ltd. Higher investment in cash means higher idle fund in the company and the lowest investment is cash means unable to meet its maturing liabilities on time. The overall company average ratio of inventory to current assets is 39.71 times. Highest ratio is 28.77 times of AVU Ltd. The overall company average of receivable to current ratio is 13.34%. The highest ratio is 16.04 times of N L Ltd. and lowest ratio is 6.85 times.
- (5) The current assets turnover ratio of the Nepalese manufacturing companies is also widely among the individual companies. Higher turnover of current assets is always desirable as it indicates the maximum utilization of current assets but the company average of current assets turnover for the study period is 1.92 times. The highest turnover ratio is 1.23 times of B N Ltd. Similarly the inventory turnover ratio is fluctuating in between 3.05 times to 6.51 among the companies. The overall company average is 4.8 times. Highest turnover belongs to N L Ltd and lowest belong to B.N Ltd. As in receivable turnover ratio highest turnover ratio is 95.93 of JSM Ltd and lowest turnover ratio is 6.81 of B N Ltd cash turnover ratio of overall company average is 94.86. The fluctuating turnover ratio's of companies has the highest ratio is 173.94 of JSM Ltd. and lowest is 13.20 time of N L Ltd.
- (6) Net working capital turnover ratio of overall company average is negative JSM Ltd, AVU Ltd and N L Ltd have negative working capital turnover ratio and B N Ltd have positive turnover ratio. Turnover itself of B N Ltd is sufficient to generate additional working capital and there is no need of additional sources of financing.
- (7) The major finding of the study showed that there is wide variation of the current

assets within individual companies. JSM Ltd. and AVU Ltd are following aggressive policy where s BN Ltd and NL Ltd are following conservative policy. Similarly the size of the current liabilities of the individual companies is widely varied JSM Ltd and B.N. Ltd following aggressive policy but NL Ltd and AVU Ltd have followed conservative policy on the other side, AVU Ltd have negative working capital turnover. This company is suffering from excess of current liabilities over current assets.

4.8.2 Findings on statistical analysis:

Besides the major findings on financial tools the major findings on financial tools is presented below.

List of the statistical findings

Analysis	NWC to Sales	CA to Sales	Net Profit to NWC
Correlation coefficient	0.499	0.933	0.3328
Probable Error	0.2267	0.3897	0.2682
Regression Coefficient	1.000	0.936	0.2896

CHAPTER- V

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 INTRODUCTION

The study is concentrated on the various aspects of the working capital management with special references to the selected listed manufacturing companies of Nepal. It covers the period of five years from 2002 to 2006 A.D. It includes the data of 4 manufacturing companies listed in Nepal Stock Exchange Ltd. Kathmandu, Nepal. This study has focused on the liquidity position, working capital policy followed by manufacturing company's cash conversion period. Besides these, some statistical techniques are used to analyze the collected facts in order to examine their relationship to each other.

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

5.2 SUMMARY

The first chapter focuses the brief introduction of the study, industrialization and its role in Nepal. It attempts a little bit to introduce the working capital management of Nepalese manufacturing companies. Some questions have been raised regarding, the working capital management of Nepalese manufacturing companies. It has also attempted to net the objectives, significance and limitations of the study. Finally it presents the study of the organization.

The second chapter deals with review of literature, which includes the conceptual framework, different view of different writers, books and journals and articles. Review of literature section has attempted to review the studies done so far on the same topic of different organization.

In third chapter research methodology is studied in third chapter. It has included the research design. It presents nature and sources of data, data collection and processing techniques and financial and statistical tools used. Financial Ratios like current ratio, quick ratio, cash and bank balance, inventory and receivable to current assets and different turnover ratios have been used. Karl Pearson's coefficient of correlation, probably error and regression analysis have been used and liquidity.

Presentation and analysis of data are studied in the fourth chapter. In this chapter working capital policy is analyzed in two ways on the basis of variables level of current assets, current liabilities. Size of net working capital and cash conversion period is analyzed. There is fluctuation in CA of individual companies with highest coefficient of variation of 25% of AVU Ltd to lowest variation of 3.9% of JSM Ltd.

Working capital policy is analyzed on the basis of ratio also. While going through the overall average of current assets 10% is invested in cash, 40% in inventory 13% in receivable and rest in other assets which means 37% overall average of current assets to total assets is 55% fluctuating highest 76% to lowest 35% current ratio of these companies is satisfactory although its ratio below the standard but it is near to the standard and the rest of the one company ratio is 0.69 times which is very much below from the standard 2:1. Similarly cash receivable and inventory turnover of selected manufacturing companies are also fluctuating profit margin ratio & ROA of two companies is negative which is not good for the progress of the company. In the analysis of relationship between working capital variable the correlation coefficient is highly positive current assets to sale is highly significant also. The regression coefficient indicates that there exists positive relation between each of the cases.

5.3 CONCLUSION

In conclusion it can be said safely that the management of current assets cannot be neglected by listed manufacturing companies. It has been observed that this is no current assets management and specific working capital policy. To run day-to-day business activities more efficient level of current assets, which is also called gross, working capital should be maintained. The fluctuation in the current assets

holding lead to conclude that the selected manufacturing companies do not seem to have seriously examined their working capital policy due to lack of target for current assets holding in the long run and the absence of sources of financing most of the manufacturing companies financial situation is deteriorating. Working capital policy shows that management has not seriously examined the working capital policy so that most of the manufacturing companies are following aggressive policy but opposite impact in revenue. The theory of high risk and high return is not applied here. Liquidity profitability and turnover position are found unfavorable current ratio is 1.39 times which show that liquidity position is not very strong.

Manufacturing companies have not made suitable financing planning for determining their working capital needs. This proves the fact that there exists high variability of working capital and lower liquidity position in manufacturing companies.

The average current assets turnover ratio is 1.91 times. The current assets turnover ratio is widely varied within and among the companies. The lower turnover ratio and high variation in it shows that Nepalese manufacturing companies have not fully utilized the current assets. Similarly overall inventory turnover ratio of manufacturing companies is 4.8 times varying highest 6.51 times of N L Ltd to lowest 3.05 times of B N Ltd. Higher turnover show the higher degree of liquidity and vice versa. The overall receivable turnover ratio is 33.19 times. This ratio is also varied widely. It is varied 6.81 times to 95.93 times. All these facts imply that it has not set any fixed rule about the liquidity management. The companies do not take seriously about liquidity unfavorable.

Due to various reasons AVU Ltd and JSM Ltd are continuously incurring losses one of them is high production and operating cost of production. The companies have total cost higher than sales. Thus such higher level of cost leads towards the negative return on investments. The unskilled manpower over staffing unsystematic purchasing of raw materials, unnecessary expenses etc are the major causes for higher production and operating cost. Higher the production and operating cost, higher the chance of the company failure.

The cash conversion cycle of the individual company is widely varied longer cash conversion period and negative cash conversion period both are worse to the company in long life. Delay in payment of the obligation hampers the credit worthiness of the firm and further obligation loan and other facilities. Due to poor collection and payable policy of Nepalese manufacturing companies the cash conversion period seems longer period.

Nepalese manufacturing companies in the present context are facing certain policy issues like deficient financial planning neglect of working capital management deviation between liquidity turn over etc. These policy issue can be overcome if listed manufacturing companies under take measures like identification of needed funds, regular checks, development of management information system, positive attitude towards risk and profit determination, right combination of short term and long term, sources of funds to finance working capital needs, appropriate combination of investment in current assets minimizing operating cost, preparing effective sales plan, specific working capital policy, improving liquidity position and by improving financial performances etc.

5.4 RECOMMENDATION

Based on the findings of the study following recommendations forwarded for the improvement of the working capital management of Nepalese manufacturing companies listed in NEPSE.

- (1) The fluctuation in the current assets holdings leads to conclude that selected manufacturing companies do not seem seriously examined their working capital policy and due lack of target for current assets holding in the long time and absent of sources of financing, most of the manufacturing companies financial situation is deteriorating. So there must be compulsory formulation of working capital policy for Nepalese manufacturing companies. Besides there should be a policy to present the holding excessive on inadequate current assets in the company.
- (2) There are many ways to achieve effective management of cash in the

manufacturing companies such as minimization of cost, better synchronization of cash flows, slowing disbursements and more frequent requisitioning of cash to branches etc most of the Nepalese manufacturing companies have deficit cash balance so, they should estimate the requirement of cash immediately. If the cash appears more than requirement the company should invest such idle fund in marketable securities.

- (3) There should be neither over investment nor lower investment in account receivable the main determinants of the size of investments are terms of sale: the selection of customers to be given credit, paying practices of customer, efficiency in collecting receivable and so on preparation of a schedule of receivables, analyzing credit worthiness of customers, minimizing float are some way to control investment in receivable. For effective management of working capital manufacturing companies, they should adopt the definite credit and collection policies, which help to operate business with lower level of working capital.
- (4) There should be neither over investment nor lower investment in account receivable. The main determinants of the size of investments are terms of sales, the selection of customers to be given credit, paying practices of the customers, efficiency in collecting receivable and so on. One of the way to control investment in receivable is to find out receivable as a percent age of assets. The other ways are preparing a schedule of receivable, analysing credit worthiness of customers, minimizing float and so on. For effective management of working capital of manufacturing companies, they should adopt the definite credit and collection policies, which help to operate business with lower level of working capital.
- (5) The management of working capital highly depends upon t he effective inventory management. The company should make effective sales plan which helps for immediate marketability and it certainly decreases the problem of overstocking. The management must give attention towards capacity utilization carrying cost, ordering cost, and lead-time for time effective

inventory management. At the same time, to manage inventory and minimize the wastage, there should be good store keeping system, better material handling system and timely inspection system.

- (6) Most of the Nepalese manufacturing companies have liquidity crisis. So the manager of manufacturing company should take the following steps to deal with liquidity problem:
- Control and reduce investment in inventory. The risk in the inventories can be controlled by coordinating between schedule of raw materials requirements and productions with consumer demand.
 - Reexamine and tighten up the credit and reduce the level of accounts receivable.
 - Increase short term or long term debt or issue equity.
 - Control overhead and increase awareness of the need for effective assets management.
- (7) It is found that current assets turn over of some Nepalese manufacturing companies is very low and Net working capital is negative which indicates the utilization of working capital is negative which indicates the utilization of working capital and total assets during the study period is very low. Manufacturing companies with higher turn over of assets need lesser working capital as compared to the manufacturing companies having lower turn over. These companies must speed the circulating assets to complete its round because it leads to lesser need of working capital. Thus, higher the turn over of assets, lesser will be the needs of the working capital. To increase the turn over of the utilization of inventories those lying in the form of store and stock should be marked as soon as possible and they should also adopt modern inventory system. The preparation of cash budget and monitoring their quick collection will result higher turn over of assets.
- (8) Some of the Nepalese manufacturing companies are incurring loss. One of the causes for it is high operating cost of production. The management should

give attention towards the minimization of administrative and operating expenses. The unskilled manpower, overstaffing, unsystematic purchase of raw materials, unnecessary expenses, misuse of facilities, heavy expenses on overhead etc are the major causes for high operating cost.

- (9) Sales directly affect the need of current assets or working capital. As the sales increase the current level of assets will also increase. The manufacturing companies must boost up the sales volume through sales agents. Hence, there should be proper relation and interactions among production, marketing and sales department during the planning of sales, which helps to meet sales target.
- (10) Risk is the opportunity for the business to make profit thus; the management should not consider it as danger. It is the ability to manage the current assets properly and effectively. For the efficient utilization of current assets the management should first identify its strength and weakness point, then the strength should be utilize to take the opportunity in the business. To develop the managerial ability to take risk there should be training, participation in the management conferences, foreign enterprises, tour etc for the managerial level employees.
- (11) Nepalese manufacturing companies should increase the efficiency of higher and lower level of employees. Training programs should be held for the higher and lower level employees. To increase the efficiency of high-level personnel training, seminar, workshop etc must be organized from time to time to acquaint the financial employees about the latest development in the area of working capital management. The skilled manpower decrease the operating costs and increase the profitability as compared to unskilled manpower.

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Current Assets of JSM in B

$$\bar{x} = 228452903.8$$

Year		$x = x - \bar{x}$	x^2
2002	280.62	1.97	3.88
2003	264.24	-14.41	207.65
2004	278.56	-0.09	0.00
2005	291.35	12.70	161.29
2006	278.49	-0.16	0.03
Total	1393.26	0	372.85

$$AVE = 278.65$$

$$\begin{aligned} & \times 100 \frac{\quad}{\quad} \\ & = \frac{x^2}{N} \\ & = \frac{372.85}{5} \\ & = \frac{74.579}{\quad} \\ & = 8.64 \end{aligned}$$

$$\begin{aligned} CV &= \frac{\quad}{\quad} \\ & \quad \times 10 \\ & \quad 0 \\ & \quad \bar{x} \\ & = \frac{8.74}{\quad} \\ & \quad 278.5 \\ & = 3.11\% \end{aligned}$$

Current of JSM

Year	CL (x)	$x = x - \bar{x}$	x^2
2002	499.21	248.13	61568.50
2003	289.67	38.59	1489.19
2004	237.91	-13.17	173.45
2005	153.91	-97.17	9442.01
2006	74.72	-176.36	31102.85
Total	1255.42	0.002	103775.1

$$\bar{x} = 251.08$$

$$\begin{aligned} & = \frac{103775.1}{5} \\ & = 20755.2 \end{aligned}$$

$$\begin{aligned} CV &= \frac{\quad}{\quad} \\ & \quad \times 10 \\ & \quad 0 \\ & \quad \bar{x} \\ & = \frac{144.07}{251.08} \\ & = 57.38\% \end{aligned}$$

$$= 144.07$$

Current assets of BN Ltd

Year	CA(x)	$x-x\bar{x}$	x^2
2002	506.43	8.9	79.21
2003	544.18	46.65	2176.22
2004	447.83	-49.7	2470.09
2005	553.16	55.63	3094.70
2006	436.05	-61.48	3779.79
Total	2487.05		11600.0

$$\begin{aligned} \bar{x} &= \frac{497.53}{5} \\ &= 2320.0 \\ &= 48.17 \end{aligned}$$

$$CV = 9.68$$

CL of BN

Year	CL (x)	$x-(x-\bar{x})$	x^2
2002	340.12	69.83	4876.23
2003	332.85	62.56	3913.75
2004	174.02	-96.27	9267.91
2005	228.99	-41.3	1705.69
2006	275.49	5.2	27.04
Total	1351.47		19790.62

$$\begin{aligned} \bar{x} &= 270.29 \\ \times 100 & \\ &= \frac{3958.12}{62.91} \\ &= 62.91 \end{aligned}$$

$$\begin{aligned} CV &= \frac{62.91}{270.29} \\ &= 23.28\% \end{aligned}$$

Current assets of AVU Ltd

Year	CA(x)	$x-(x-\bar{x})$	x^2
2002	248.63	-82.53	6811.20
2003	243.53	-87.63	7679.02
2004	434.64	103.48	10708.11
2005	397.85	66.69	
2006	-		4447.56
Total	1324.65		29645.89

$$\begin{aligned} \bar{x} &= 331.16 \\ 86.09 \times 100 & \\ &= \frac{7411.47}{86.09} \\ &= 86.09 \\ &= 25.01\% \end{aligned}$$

$$\begin{aligned} CV &= \frac{86.09}{331.16} \\ &= \end{aligned}$$

CL of AVU

Year	CL(x)	$x=(x-\bar{x})$	x^2
2002	306.36	-75.14	5646.02
2003	306.93	-74.57	5560.68
2004	505.11	123.61	15279.43
2005	407.58	26.08	680.17
2006	-	-	-
Total	1525.98		27166.3

$$\bar{x} = 381.50$$

$$CV = \underline{\hspace{2cm}}$$

$$82.41 \times 100 = \frac{6791.56}{6791.56}$$

38

$$1.50 = 82.41$$

$$= 21.60$$

%

CA of Nepal Lever Ltd

Year	CA	$x=(x-\bar{x})$	x^2
2002	399.14	-270.12	72964.41
2003	589.88	-79.38	6301.18
2004	724.24	54.98	3022.80
2005	891.41	222.15	49350.62
2006	741.61	72.35	5234.52
Total	3346.28		136873.93

$$\bar{x} = 669.26$$

$$CV = \underline{165.45}$$

$$\times 100 = \frac{27374.79}{165.45}$$

$$\frac{669.26}{24.72\%}$$

CL of NL Ltd

Year	CL	$x=(x-\bar{x})$	x^2
2002	223.21	-340.31	115810.9
2003	426.45	-137.07	18788.18
2004	543.71	-19.81	392.44
2005	882.02	318.5	101442.24
2006	742.23	178.71	31937.26
Total	2817.62		268371.03

$$\bar{x} = 563.52$$

$$CV = \underline{231.68}$$

$$\times 100 = \frac{53674.21}{231.68}$$

$$\frac{563.52}{41.11\%}$$

CA of Selected management

2002

JSM	280.62	-78.09	6098.05
BN	506.43	147.72	21821.20
AVU	248.63	-110.08	12117.61
NL	399.14	40.43	1634.58
Total	1434.82		41671.44

$$\bar{x} = 358.71$$

$$CV = \frac{15.57}{358.71}$$

$$\begin{aligned} &\times 100 \\ &= \frac{10417.86}{358.71} \\ &= 102.07 \end{aligned}$$

$$\begin{aligned} &= \frac{358.71}{358.71} \\ &= 28.45\% \end{aligned}$$

2003

JSM	264.24	-146.22	21380.29
BN	544.18	133.72	17881.04
AVU	243.53	-166.93	27865.62
NL	589.88	179.42	32191.54
Total	1641.83		99318.49

$$\bar{x} = 410.46$$

$$CV = \frac{157.57}{410.46} \times 100$$

$$\begin{aligned} &100 \\ &= \frac{24829.62}{410.46} \\ &= 157.57 \end{aligned}$$

$$\begin{aligned} &= \frac{410.46}{410.46} \\ &= 38.39\% \end{aligned}$$

2004

JSM	278.56	-192.76	37156.42
BN	447.83	-23.49	551.78
AVU	434.64	-36.68	1345.42
NL	724.24	252.92	63968.53
Total	188.27		103022.15

$$\begin{aligned} \bar{x} &= 471.32 \\ &= \frac{25755.54}{471.32} \\ &= 160.49 \end{aligned}$$

$$\begin{aligned} CV &= \frac{160.49}{471.32} \times 100 \\ &= 34.05\% \end{aligned}$$

2005

JSM	153.91	-264.22	69812.21
BN	228.99	-264.22	35773.94
AVU	407.58	-10.55	111.30
NL	882.02	463.89	215193.93
Total	1672.5		320891.38

$$\bar{x} = 418.13$$

$$CV = \frac{283.24}{418.13} \times 100$$

$$= \frac{80222.85}{283.24}$$

$$= \frac{418.13}{67.74\%}$$

2006

JSM	74.72	-289.43	83769.72
BN	275.49	-88.66	7860.6
AVU	-	-	-
NL	742.23	378.08	142944.49
Total	1092.44		234574.41

$$\bar{x} = \frac{364.15}{\quad}$$

$$CV = \frac{279.63}{\quad}$$

×100

$$= \frac{80222.85}{\quad}$$

$$= \frac{364.15}{\quad}$$

$$= 279.63$$

$$= 76.79\%$$

Current Ratio Of Selected Management Cos.

Name of the cos.	2002	2003	2004	2005	2006	AVE
JSM Ltd	0.56	0.91	1.17	1.89	3.73	1.65
BN Ltd	1.49	1.63	2.57	2.42	1.58	1.94
AVU Ltd	0.81	0.79	0.86	0.98	-	0.69
NL Ltd	1.79	1.38	1.33	1.01	1.0	1.30
	1.16	1.18	1.48	1.57	1.58	1.39

Total asset of management co.

Name of the cos.	2002	2003	2004	2005	2006	AVE
JSM Ltd	1086.60	772.28	760.88	747.83	721.72	817.86
BN Ltd	1036.05	1038.41	886.56	975.26	1048.35	996.93
AVU Ltd	369.86	346.89	545.35	501.52	-	352.73
NL Ltd	571.34	784.88	939.72	1098.96	967.15	872.41
AVE Ltd	765.96	735.62	783.13	830.89	684.31	759.98

Ratio of CA to TA

Name of cos.	2002	2003	2004	2005	2006	AVE
JSM Ltd	0.26	0.34	0.37	0.39	0.39	0.35
BN Ltd	0.49	0.52	51	0.57	0.42	0.50
AVU Ltd	0.67	0.70	0.80	0.79	-	0.59
NL	0.70	0.75	0.77	0.81	0.77	0.76
	0.53	0.58	0.61	0.64	0.40	0.55

Net working capital of management cos.

Name of the cos.	2002	2003	2004	2005	2006	AVE
JSM Ltd	-218.59	-25.43	40.65	137.44	203.78	27.57
BN Ltd	166.31	211.33	273.81	324.17	160.56	227.24
AVU Ltd	-57.73	-63.4	-70.47	-9.73	-	-40.26
NL Ltd	175.93	163.43	180.53	9.39	-0.62	105.73
AVE Ltd	16.48	71.48	106.13	115.32	90.93	80.07

Net working capital turnover

Name of the cos.	2002	2003	2004	2005	2006	AVE
JSM Ltd	-3.08	-28.51	17.49	6.22	3.59	-0.86
BN Ltd	3.22	2.88	2.31	1.90	3.87	2.84
AVU Ltd	-11.23	-8.07	-9.14	-62.23	-	-18.14
NL Ltd	7.03	7.62	8.45	157.78	-2370.47	-437.92
AVE Ltd	-1.02	-6.52	4.78	25.92	-590.25	-113.52

Current assets turnover

NOTICS	2002	2003	2004	2005	2006	AVE
JSM Ltd	2.40	2.74	2.58	2.94	2.62	2.66
BN Ltd	1.06	1.12	1.41	1.11	1.43	1.23
AVU Ltd	2.61	2.10	1.48	1.52	-	1.54
NL Ltd	3.10	2.11	2.11	1.66	1.98	2.19
AVE Ltd	2.29	2.02	1.90	1.81	1.51	1.91

NP/NL**Profit (Loss) margin ratio = sales**

Name of the cos.	2002	2003	2004	2005	2006	AVE
JSM Ltd	-0.044	-0.007	0.012	0.030	-0.055	-0.013
BN Ltd	0.091	0.032	0.060	0.057	0.041	0.056
AVU Ltd	0.022	0.0006	0.002	-0.093	-	-0.024
NL Ltd	0.034	0.075	0.092	0.333	0.162	0.139
AVE Ltd	0.026	0.025	0.042	0.128	0.037	0.051

Average return on table assets

Name of the cos.	2002	2003	2004	2005	2006	AVE
JSM Ltd	-0.028	-0.007	0.012	0.034	-0.056	-0.009
BN Ltd	0.047	0.019	0.043	0.036	0.024	0.034
AVU Ltd	0.038	0.0009	0.002	-0.11	-	-0.014
NL Ltd	0.075	0.119	0.150	0.449	0.246	0.208
AVE Ltd	0.033	0.033	0.052	0.102	0.054	0.055

GP

Grass profit margin =sales

Name of the cos.	2002	2003	2004	2005	2006	AVE
JSM Ltd	0.238	0.163	0.154	0.149	0.082	0.1564
BN Ltd	0.428	0.617	0.433	0.419	0.565	0.4924
AVU Ltd	0.156	0.0111	0.068	0.021	-	0.0512
NL Ltd	0.241	0.323	0.364	0.367	0.360	0.331
AVE Ltd	0.266	0.279	0.255	0.239	0.252	0.258

Name of the cos.	$\text{Return on net working capital RW} = \frac{\text{NP}}{\text{CP}}$					
	2002	2003	2004	2005	2006	AVE
JSM Ltd	-0.107	-0.020	0.032	0.087	-0.144	0.067
BN Ltd	0.096	0.036	0.084	0.063	0.057	0.067
AVU Ltd	0.057	0.001	0.003	-0.141	-	-0.016
NL Ltd	0.107	0.158	0.194	0.553	0.321	0.267
AVE Ltd	0.038	0.044	0.078	0.141	0.059	0.072

Sales

Name of the cos.	2002	2003	2004	2005	2006	AVE
JSM Ltd	673.09	725.04	718.95	855.32	730.88	740.66
BN Ltd	535.49	609.65	632.11	614.74	621.83	602.76
AVU Ltd	648.30	511.48	644.39	605.51	-	481.94
NL Ltd	1236.05	1244.73	1524.90	1481.56	1469.69	1391.39
AVE Ltd	773.23	772.73	880.09	889.28	705.6	804.19

Net profit

Name of the cos.	2002	2003	2004	2005	2006	AVE
JSM Ltd	(29.90)	(50.29)	8081	25.36	(40.1)	-8.22
BN Ltd	48.61	19.37	37.8	34.74	24.96	33.10
AVU Ltd	14.07	0.30	1.15	(56.17)	-	-8.13
NL Ltd	42.61	93.17	140.78	493.14	238.16	201.57
AVE Ltd	18.85	26.89	47.14	124.27	55.76	54.58

Quick assets

Name of the cos.	2002	2003	2004	2005	2006	AVE
JSM Ltd	36.84	25.32	38.24	8.31	16.10	
BN Ltd	144.67	93.37	137.93	182.71	99.58	
AVU Ltd	23.83	37.43	57.42	101.05	-	
NL Ltd	94.5	354.23	433.86	530.79	356.99	
AVE Ltd						

Cash and bank balance

						Rs in millions
Name of the cos.	2002	2003	2004	2005	2006	
JSM Ltd	9.28	2.07	9.13	5.29	3.54	
BN Ltd	29.46	5.34	13.76	1.92	35.93	
AVU Ltd	4.18	3.91	7.02	8.91	-	
NL Ltd	62.33	391.53	443.31	59.02	101.60	

Inventory						Rs.
in million Name of the cos.	2002	2003	2004	2005	2006	
JSM Ltd	136.46	141.96	154.50	184.91	165.62	156.69
BN Ltd	185.34	227.22	184.98	224.07	179.94	200.31
AVU Ltd	68.0	61.43	236.67	146.45	-	102.51
NL Ltd	144.45	184.22	229.76	256.17	304.33	223.79

Receivables						
Name of the cos.	2002	2003	2004	2005	2006	
JSM Ltd	27.56	23.24	29.03	2.52	12.21	18.91
BN Ltd	32.16	97.06	157.72	138.32	136.45	112.39
AVU Ltd	19.65	33.53	50.37	92.13	-	39.14
NL Ltd	115.21	88.04	124.18	80.85	63.66	94.39

