

Chapter-One

Introduction

1.1 Background of the Study

Industrialization is an important factor for achieving the basic objectives of a country's economic and social progress. Industrialization is considered essential for economic development of the country these days. "Industrialization not only provides goods and services but also creates employment opportunities. It facilitates an effective mobilization of resources of capital and skill, which might otherwise remain unutilized. Industrial development thus has a multiplier effect on the economy," (Pant, 2003:188).

Nepal is one the developing countries. Industrial development plays vital role in economic development of every country. Industrial development helps a country in the various ways. It contributes to national incomes, reduces unemployment, reduces the dependency on imports and promotes exports. Industrialization helps to create capital money by means of utilization of unused resources by sifting them from unproductive sectors to productive sectors. The Government of Nepal has been emphasizing the development of industries both in public and private sectors. The policy of the Government to encourage industrialization in the private sectors included financial facilities through financial institutions, tax concession and so many other facilities through liberalization policy. "Industrial development in Nepal, however, started getting regular attention of the government under the aegis of development plans after the dawn of democracy in 1951. Several industries were established in the public sector mostly with the financial and technical assistance of the USSR and China," (Pant, 2003:188). The Government gave much emphasis on the development of the public enterprises after the adoption of first Five Year Plan in 1956 AD. After 1956 AD Nepal started planned economic development efforts to obtain rapid economic growth. In our country, various manufacturing companies have been established and developed through government efforts.

The private companies play vital role in the industrialization and economic growth of the nation. Due to the establishment of private companies, the government becomes able to reduce its investment in public sectors, which are incurring continuously loss. The overall economic development of the country depends on the development of manufacturing companies. Now, Nepal has adopted the policy of economic liberalization and entered into globalization through the member of WTO. The government is privatizing the public enterprises and there no new manufacturing industries are established in the public sector. Government adopts Foreign Direct Investment policy to encourage foreign investors. This policy creates positive impact on the private manufacturing companies in industrial development. Nepal has recently got the membership of WTO. So, the role of manufacturing companies to develop the national economy is very important.

Working capital management is essential to lead manufacturing companies successfully. “Working capital management which is concerned with short term financial decision appears to have been relatively neglected in the literature of finance,” (Pradhan, 1986:3).

“Every company has variable working capital and permanent working capital. Certain portion of WC always remains permanent working capital. Cash receivable and inventory level in the business would never decline to zero. The working capital other than permanent is called variable working capital. But due to the lack of basic knowledge of WC management most of the companies in Nepal are suffering from heavy loss. It is a well-accepted fact that, Nepal has abundant human and natural resources to exploit but at the same time it has inadequate financial resources. So, in a country like Nepal it is essential that WC utilization be improved,” (Pradhan, 1999:9).

Working capital management is a process of short term decision making regarding the current assets and liabilities affecting the long-term operation of an organization. It is a process of planning and controlling the level and mix of current assets of the firm as well as financing these assets. It includes decisions regarding cash and marketable securities, receivables, inventories, and current liabilities with an objective of maximizing the overalls value of a firm.

WC is therefore concerned with deciding the size of investment in each type of current asset, e.g. cash, receivables and inventory. Decision regarding WC affects the profitability of the firm in the short run but it affects the survival in the long run. Faster the turnover of cash into raw material into semi-finished goods, semi-finished goods into finished goods and finished goods into receivable and cash, greater would be the efficiency of the firm.

The government gave much emphasis on the development of the public enterprises after the adoption of first Five Years Plan in 2013 B.S. After 2013 B.S. Nepal started planned economic development efforts to obtain repaid economic growth. In our country, various manufacturing companies have been established and development through government efforts.

Ongoing liquidity is influenced by all aspects of the cycle, since increase in purchase inventory or receivables will increase liquidity. An increase in any of the three other things being equal will increase ongoing liquidity. As cash conversion cycle shortens, the firm’s ongoing good economy, the cycle is shortened; the firm’s ongoing liquidity improves. In this study the short-term liquidity position and cash conversion cycle have been determined in context of one selected manufacturing company.

1.2 Introduction of Dabur Nepal Private Limited

Dabur Nepal Private Limited is one of the leading FMCG Companies in Nepal. The company is also a world leader in Ayurveda with a portfolio of over 250 Herbal/

Ayurvedic products. They operate in key consumer products categories like Health Care, Dabur Chyaman Prash, Dabur Honey, Personal Care, Dabur Amla, Hair Oil, Vatika Shampoo, Food, Real Juices, Homemade and Cooking Paste, Hair Care, Skin Care, Oral Care, fruit Juices etc. It was set up as an Independent Group CEO: Mr. Udyan Ganguly Company in 1992. Its registered office is located at Parsa District and the head office being at Tinkune, Kathmandu in Nepal by Indian Companies Act 1956. Introduction to Dabur Nepal certified increased for started with the turnover HACCP 2012, won the best production of oil, by 19 % 2009 exporter dantmanjan & 2006 award other herbal 2004 products 2002 First 1998 SAP FMCG to 1994 launch its 1992. Best online manufacturing shopping bought 300 & marketing portal established acres plot company in 1989, Banepa for Nursery. The company was won best exporter award of export promotion board, Ministry of Commerce, Government of Nepal and increase in turnover by over 19% in 2002. Manufacturing facilities and systems of Dabur Nepal Pvt. Ltd. get certificated in January 2003 for having met the requirements of General Principles of Food Hygiene.

Working Capital Management is a managerial accounting strategy management focusing on maintaining efficient levels of both components of working capital, current assets and current liabilities, in respect to each. Working capital requirement decides the liquidity and other profitability. Working capital management ensures a company of a firm has sufficient cash flow in order to meet its short-term debt obligations and Key aspects include, Operating expenses, Liquidity, Leverage, Profitability, Cash Conversion Cycle and Size of the Firm. The firm objectives of the to analyze the relationship between working capital study efficiency, to analyze the relationship between profitability and liquidity of Dabur Nepal, to examine the relationship profitability in Dabur Nepal between liquidity and to examine the leverage of Dabur Nepal relationship between the size of the firm and profitability of Dabur Nepal.

The working capital policy is the firm's policy. Issues about its working capital level and how its working capital should be financed decisions about how much to keep in its cash account, what level of inventory to maintain and how much to allow receivables to New Zealand Department of Treasury (2007) build up.

1.3 Focus of the study

There are various types of assets and liabilities in every business as well as manufacturing organization to run smoothly. One of the important assets is CAs, which is required to meet the daily or short-term obligation. Working capital is the portion of the total assets, which circulates from one to another from in the ordinary conduct of business. Working capital management is a crucial aspect of financial management including the administration of all aspects of the current assets and current liabilities, which play vital role for success or failure of business.

This study focuses on the every aspects of the working capital management of Dabur Nepal Pvt. Ltd. This study covers the currents assets management policy, current

assets utilization, current assets structure and other financial area. Mainly this focuses on comparative study of working capital management efficiency of Dabur Nepal Private Limited which is popular manufacturing company of Nepal.

1.4 Statement of the Problem

Working capital not only affects profitability of an organization in the short run but also affects its survival in the long run. Working capital management is difficult in Nepalese Manufacturing Companies aspect of working capital management has been ignored in adopting a system of planning and budgeting. Managing working capital should focus on tradeoff between liquidity and profit. Thus the basic problem of study is to examine the working capital management system practiced by the manufacturing companies in Nepal. Working capital of an organization can't be managed in an easy way. Manufacturing organization's problem in working capital management is more difficult than of non- mfg. organizations. Manufacturing organizations should manage its level of inventories, (Raw material and WIP and Finished goods) for uninterrupted production process.

Most of the manufacturing companies in Nepal are still facing the problem of WC management due to the various factors related to it. Managers still focus their attention on the procurement aspect of WC but not on the efficient utilization of fund. The deficiency WC, administrative negligence's in day to day operations, Liquidity problem, lower turnover of assets, negative rate of return, higher production costs, operation expenses, poor collection and payable policies as well as inventory management system are the major problems prevailed in Nepalese manufacturing companies. Investors want to earn return from their investment. Therefore, every organization should make profit for investors but profit is not only indicator of proper management of financing. So, based on the above issues this study attempted to find out the major aspects of financial management.

The research study tried to find out the answers to the following questions.

- ❖ What is the level of CAs to fixed assets and total assets?
- ❖ What is the structure of WC in the selected company? Are there reasonable investments in each type of Working capital?
- ❖ What steps have the firms taken to raise the required funds?
- ❖ Are there sound liquidity positions in the selected Nepalese manufacturing company?
- ❖ What is the return on working capital? Is the return enough to support the WC requirement?
- ❖ Is the company average profitability satisfactory?

1.5 Objective of the Study

Working capital deficiency is one of the reasons for failure of a business firm. Short term financing for working capital has never received much attention in the literature

of finance. The main objective of this study is to examine the working capital practiced in the selected of Nepalese manufacturing companies. **The specific objectives of the study are as follows:**

- 1) To appraise WC management of manufacturing company with respect to cash, credit and inventory and to study the relationship between sales and variables of WC.
- 2) To analyze the effect of WC on return and risk.
- 3) To identify factors affecting size of working capital.
- 4) To analyze the liquidity position of the selected manufacturing company.

1.6 Significance of the Study

This study is concerned with the theoretical explanation and practical application of working capital management of Dabur Nepal Private Limited. The study might be valuable to researcher, scholars and students in contact of working capital management of Dabur Nepal Private Limited. Thus, this study will be significant to the followings:

- I. Manufacturing enterprises to determine and manage working capital.
- II. Government to formulate appropriate economic policy his enterprises.
- III. General interested public.

1.7 Limitations of the Study

This study is mainly based on secondary data, collected from books, financial statements and reports of the relevant companies and websites. Moreover the study covers the data from the fiscal year 2008/09 to 2012/13 A.D. relating to working capital only.

There are more than 176 listed companies in Nepal, comprising manufacturing companies, banking, hotel, trading, insurance, finance and others. Only one manufacturing company was taken for research study out of 28 listed manufacturing companies.

Personal visits to all over the selected companies are difficult because of security hence the study was done by collecting relevant data from the documents provide by Security Board of Nepal and financial Index books, Internet & E-mail.

The limitations of this study are as follows:

- a) Only one manufacturing company was taken.
- b) The major sources of data collection were secondary data of annual report of company, website, and other published and unpublished articles.
- c) The study was limited only five fiscal year data. For 2008/09 to 2012/13 AD.
- d) Financial tools were used for analyzing the working capital management.
- e) The study was based on working capital of DNL.

1.8 Organization of the Study

The study was classified into five chapters. The five chapters of the study report are as follows:

Chapter -1; Introduction: The first chapter included background of the study, statement of the problem, objective of the study, significance of the study and limitations of the study.

Chapter -2; Review of Literature: The second chapter dealt with the study of the related books and research work which were published and conducted by different experts and researcher in the field of working capital.

Chapter -3; Research Methodology: The third Chapter dealt research methodology process such as, research design, nature and source of data, population and sampling of the study, methods stools of analysis of data view, quantitative and qualitative tools and last definition of key terms.

Chapter -4; Presentation and Analysis of Data: The fourth chapter dealt with data collection procedure and presentation of data with different statistical and financial tools, findings of the study.

Chapter -5; Summary, Conclusion and Recommendation: The fifth chapter contained summary, conclusion and recommendation.

Chapter – Two

Review of Literature

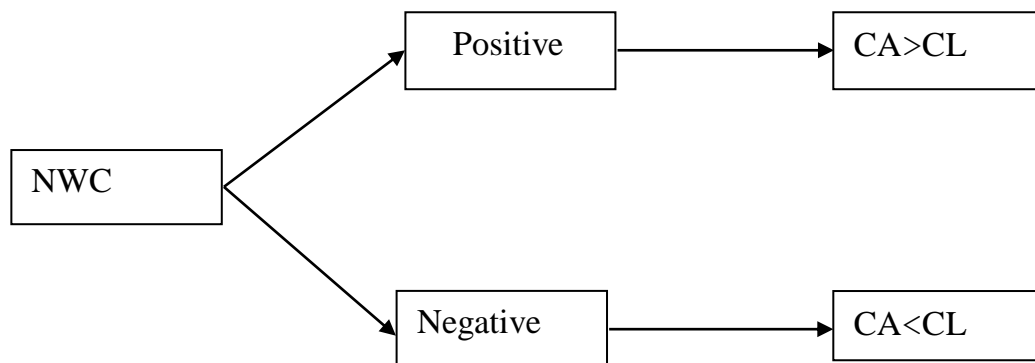
2.1 Conceptual Framework

Working capital management is concerned with determining the firm's level of investment in current assets and financing pattern of the current assets. It has become an important and challenging job of the financial managers these days. The financial manager should spend a significant amount of his time in the day to day operation of the firm relating to the management of working capital because it affects both profitability and risk of the firm. An enterprise needs not only fixed but also working capital. "The working capital is the capital that needs to conduct the day to day operation of a business firm. For day to day operation of the concern, it finance in some of assets of short term nature like inventories, account receivable, cash and marketable securities etc. When all these short term assets are put together, it has called working capital, so, I can say that WC is related with short-term financing. The area of WC management is not only related to the functional area of business but it is also related to other discipline like economic and accounting," (Pradhan, 1999:18–19). There are two concepts of WC: Gross WC and Net WC. Gross working capital means the current assets only. It ignores liabilities of a firm. Working capital is the excess of CAs over CLs according to Net concept of WC. Working capital management is concerned with the problems that arise in maintaining CAs, CLs and interrelationship that exists between them.

How much a firm needs to invest in CA depends on its operating cycle? Operating cycle means the time duration which the firm requires to manufacture and sell the products and to collect cash. So, its major determinant to WC requirement and the firm's credit policy are major factors which influence WC requirement. The firm's decision about the level of investment in CA involves a tradeoff between risk and return. When the firm invests more in CA it reduces its debt paying risk but loses in terms of profitability, since the opportunity of earning from the excess investment in CA is lost. The firm, therefore, is required to strike a right balance. "The financing of CA also involves a tradeoff between risk & return. A firm can choose from short or long term sources of finance. If the firm uses more of short term fund for financing both CA and fixed assets, its financing policy is considered aggressive and risky. Its financing policy is considered conservative if it makes relatively more use in long-term source of financing its assets. The balance approach is to finance permanent CA by long term source and temporary CA by short-term source of finance," (Pandey, 1999:833).

Glenn V. Henderson also suggest the gross and net concept and concluded that both concepts are important to firm management but special attention must be given to the net WC level because of its impact on liquidity. "A firm could have a very desirable WC level but goes bankrupt because of liquidity problem, caused by a low net WC

position. An increase in net WC reduces risk because liquidity is increased. A decrease in net WC implies that a greater proportion of funds are invested in fixed assets, which have a higher yield than CAs. Thus profitability should increase,” (Henderson and Wert, year: 28) WC can also be explained from negative and positive point of view. If the totals CA are more than the total CL then it is said to be positive WC and vice-versa. “WC is needed in every organization to run day to day business activities, since there is a time lag between the sales of product and realization of cash, every organization requires sufficient amount of WC to meet the daily requirement and to tackle the problem when arise of the smooth running of the business,” (Mathur, 1994:176).



(Sources: (Mathur, 1994:176)

Cash and marketable securities are considered as purely liquid and near liquid assets where as receivables and inventories aren't. However, they can be liquidated when necessary with in a period of less than one year, so the capital investment on these assets is known as WC. “The objective of the managing WC is to aid in the value maximization of the firm by minimizing the cost of WC. In particular, the short term source generally costs less than the long term source. The job of financial manager is to balance the cost of WC and the risk associated with source of capital,” (Pradhan, 1992:147).

Weston and Copeland also explain working capital taking the reference of the short term finance. “Short term management encompasses WC management and involves all aspects of the administration of CA and CL or working capital policy was defined to encompass all aspects of the management of CA and CL. Short term financial management is the term now widely used in place of WC management,” (Weston & Copeland, 1996:835).

In order to survive, an organization must be able to meet all its commitment as they fall due, i.e. to pay its bill on time. The efficient management of WC, therefore, and particularly the provision of adequate level of liquidity at all times are crucial.

The ability to meet commitments and to pay bills-comes from the availability of cash. A company could have considerable working capital in the accounting sense (because of very large inventories) but no cash, and thus be on the point of insolvency.

“In the management of working capital, the must posing questions are,” (Pradhan, 1992:147-157).

- ❖ How much WC to maintain?
- ❖ What type of financing to use?
- ❖ How to adjust the WC when there is change in the level of business activities?

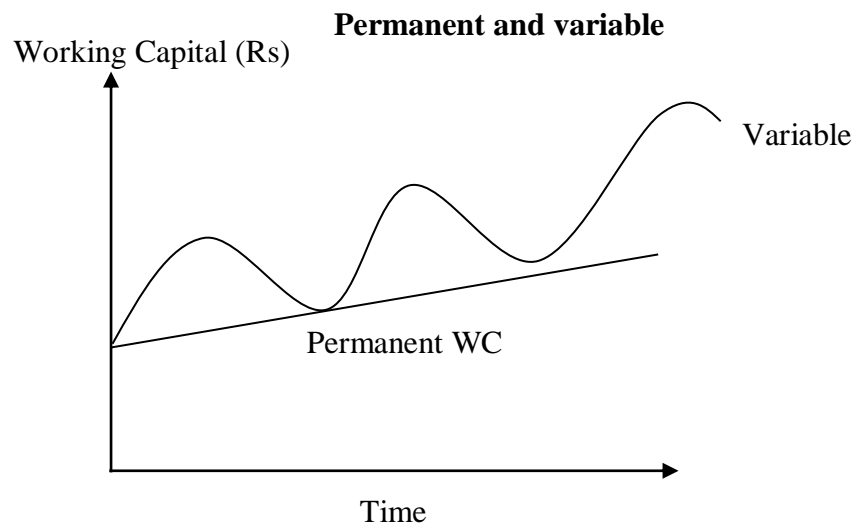
In particular, they face the following issues with respect to management of WC.

- ❖ Size of WC to maintain-size of cash type of CAs.
- ❖ Size of permanent and seasonal working capital investment.
- ❖ Source of financing-short term, long term debt and equity financing.
- ❖ Cost of financing-cost of short term vs. long term financing.
- ❖ Risk associated with type of financing-trade off between cost and risk.
- ❖ Maintenance of current ratio-minimizing the risk of cash flow problem.

“WC management is the functional area of finance that covers all the current accounts of the firm. It’s concerned with adequacy of CAs as well as the level of risk posed by CLs. It’s a discipline that seeks proper policies for managing CAs and CLs and practical techniques for maximizing the benefit from managing WC. The firm WC may be viewed as being comprised of two Components. It is important in the formulation of procurement policies. On the basis of time WC can be divided in two ways,” (Kubr, 2002:305).

- ❖ **Permanent WC** is minimum amount which requires to ensuring effective utilization of fixed facilities and for maintaining the circulation of CAs.
- ❖ **Temporary/variable WC** is the amount of current assets that varies with seasonal requirements or Variable working capital is the amount of working capital which is required to meet the seasonal demands. Its amount of WC which is over the level of permanent WC. This represents additional assets required at certain time during the year.

Figure: 2.1



(Source: John. J. Hampton, 1998: 182)

The Figure 2.1 shows that permanent working capital for the firm is stable over the time and variable working capital fluctuates over the time. However it should be noted that the need for permanent WC also increases over the time for a growing firm. Therefore, the permanent WC line is not necessarily the horizontal as shown in the figure. In such case it is sloping upward.

A study of WC is of major importance to internal and external analysis because of its close relationship to current day to day operations of a business firm. Inadequacy or mismanagement of WC is one of the leading causes of business failure. “The requirement of finance in business arise mainly due to two factors viz, acquisition of fixed assets and provision of WC. The WC is necessary to meet day to day revenue expense like purchase of materials, wage payment, meeting overhead expenses etc.”(Jain,1996:133). “About 60% of a typical financial manager's time is devoted to WC management,” (Brigham, 1984:792).

Table: 2.1

Importance of WC Management

Importance	Reason
Time devoted to working capital Management	The largest portion of financial manager's time is consumed in day to day operation of the business to dealing with A/C receivable, A/C payable, inventories and cash etc.
Investment in CAs	CAs represents more than one half of the total assets of a business firm and it is volatile.
Important for Small firms	The small firm may minimize its investment in fixed assets by renting or leasing plant and equipment but there is no way of as avoiding an investment in cash, receivable and inventories.
Relationship between sales growth and CAs	The relationship between sales growth and CAs is close and direct.

(Source: R.S. Pradhan, 2004:346)

In today's world of intense competition, WC management is receiving increasing attention from managers. In fact, the goal of many leading companies today is zero WC. “Proponents of zero WC concept claim that a movement toward this goal not only generates cash but also speeds up production and helps businesses make more timely deliveries and operate more efficiently. The concept has its own definition of WC: (*Inventories + Receivables – Payable*). The rationale here is that inventories and receivables are the keys to making sales but that inventories can be financed by suppliers through account payable,” (Brigham E.F., 2008: 792)The most important factor in moving toward zero WC is increased speed. The production process has to be fast. In fact, the choice of a particular concept will depend upon the purpose in

view. Of the two concept, the net and gross, the net is more useful id the purpose is to find out the liquidity position of the enterprise. If, on the other hand, the interest lies in finding out whether the total CAs of an enterprises 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 firm of cash, receivable and inventories so, as to being its operation. The net concept is more relevant for a going concern,” (Pradhan, 2004:344-346).

There are no rules to determine WC requirement of a firm. Number of factors influence WC needs and all factors are of their own important. Many studies show that manufacturing firms needed higher volume of WC as compared to public utility enterprise. “The following factors are pertinent for having an overall view of the factors affecting WC needs,” (Jain, 1996: 132-142)

2.2 Factors Determining to Working Capital

1. Nature of Business: A company's WC requirement is basically related to the kind of business it conducts. Public utilities have the lower requirement for CA because they have only cash sales and supply service, not products. In manufacturing companies' stock in trade represent a large investment. Trading and financial firm require a large sum of money as WC.

2. Size of business: Size of business also affects the level of working capital to be maintained. It is more common for large sized firm to maintain larger amount of working capital. The size of business also has an important bearing in determining WC needs of a firm. A firm with large scale operation will need more WC than a small firm.

3. Cash conversion cycle: Cash conversion cycle is the length of time period lag between the time cash outflow occurs in the form of purchase, investment in inventories and receivables and the time cash inflows occur in the form of cash sales or collection of credit sales. Longer the cash conversion cycle larger will be the working capital.

4. Manufacturing Process: If the manufacturing process in an industry entails a large period because of its complex character, more WC is required to finance that process. An extended manufacturing time span means a larger tie-up of fund in inventories and higher amount of WC.

5. Business Fluctuations: Business variations affect the WC requirement, especially the temporary WC requirement of the firm. In the boom period the sales will increase corresponding, the firm's investment in inventories and book debts will also increase. This act of the firm will require further additions to WC and vice-versa.

6. Turnover of Circulation Capital: The speed with which the WC completes its round i.e. conversion of cash into inventory of raw material and store's inventory of raw materials into inventory of finished goods inventory of finished goods into book

debts or account receivable and book debts into cash account plays an important role in judging the requirement of the WC.

7. Growth and Expansion of Business: A growing firm has to invest funds in fixed assets in order to sustain its growing production and sales. This will increase inventory in CA to support enlarged scale of operation. It will require more WC.

8. Volume of Sales: A firm maintains the CA because they are needed to support the operational activities which results in sales. As the volume of sales increase there is an increase in the investment of WC, in the cost of operation, in inventories and in receivables. The increase in CAs results in increase in the requirement of WC.

9. Term of Purchase and Sales: If the credit terms of purchase are more favorable and those of sales less liberal, less cash will be invested in inventory. A firm which can get credit easily a favorable conditions, will require less amount of WC than the firm without such a facility.

10. Cash Requirement: Cash is one of the current assets which are essential for the successful operation of the production cycle. Cash should be adequate and properly utilized. Adequate cash is also required to maintain good credit relations.

11. Profit Margin and Profit Appropriation: The net profit is a source of WC. A high net profit margin contributes towards the WC pool. The requirement of WC is also influenced by the tax liabilities and firm's policy to retain or distribute profit. A high tax liability will impose an additional strain on the WC. Payment of dividend consumes cash resources and therefore, reduces the firm's WC to that extent.

12. Change in Technology: Technological developments related to the production process have a sharp impact on the need for WC. Change in technology will need additional amount of WC due to fresh investment in new assets.

13. Inventory Turnover: With a better inventory control a firm is able to reduce its WC requirement. If the inventory turnover is high the WC requirement will be low.

14. Access to money market: The level of working capital to be maintained by a firm is also determined by capacity of the firm to borrow on short notice. If the firm has good access to bank and finance companies, it can raise short term borrowing at very short notice so that working capital requirement is reduced.

15. Other Factors: Absence of co-ordination in production and distribution policies in a company leads to a high demand for WC. The import policy of the government may also affect the requirement of the WC for the companies as they have to arrange for funds for importing goods at specified times.

Besides the above factors, the efficient management of the trade cycle and attitude of the management are also important. "The impact of socio, political, economic, technological, natural, global, fiscal and monetary policies also have to be studied in

specific cases for assessing the WC needs. Perhaps a SWOT analysis may be helpful in this context. In short, the WC requirement of an organization depends upon the factors known as the determinants of WC,'’ (Krishna, 1996:46).

Table: 2.2

A to Z factors on Working Capital

a	Name of business
b	Manufacturing policies
c	Production process and change in technology
d	Terms of buying and conditions of sales
e	Capital expenditure and investment decision
f	Transportation bottleneck
g	Lead time requirement
h	Length of operating cycle
i	Raw material requirements
j	Inventory of machinery spares
k	Semi-finished goods inventory
l	Finished goods stock
m	Supplier's credit
n	Credit of Sales
o	Total current assets
p	Total current liabilities
q	Market condition of supply and demands
r	Growth of the business
s	Business cycle fluctuation
t	Seasonal demand
u	Product life cycle
v	Non-bank short term borrowing
w	Short term bank borrowing
x	Share capital
y	Reserve, internal accrual and taxes on profit
z	Long term debt

(Sources: Laxmi Joshi, 2007:31)

2.3 Working Capital Policy

Working capital policy considers financing side of CA. The basic question is how much of short term and long term fund should be used to finance CA. At that situation first I need of CAs and CLs which are the basic components of working capital should be known. It's differentiating CA from non-CA or CL from non-CA. Generally a period of one year is used as a line of demarcation, which is somewhat arbitrary.

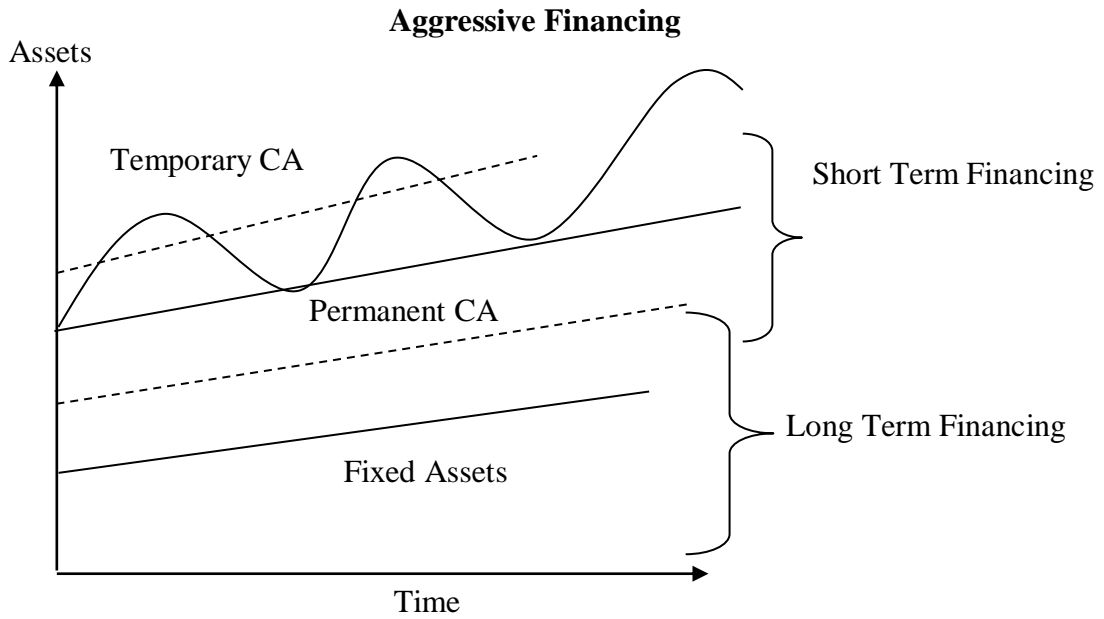
“In an enterprise the level and quality of CAs and CLs is guided by the WC policy and management adopted by it. WC involves all aspects of the administration of CAs and CLs,” (Weston and Brigham, 1984:284). There are different types of fund sources and here we are considered with which of them should be used at what level. “Using long term financing for short term assets is expensive as funds will not be utilized for the full period. Similarly financing long term assets with short term financing is costly as well as inconvenient as arrangement for the new short term financing will have to be made on a continuing basis,” (Pandey, 1999:828).

“WC policy involves two basic questions (1) what is the appropriate amount of CA for the firm to carry, both in total and for each specific account, and (2) how should CA be financed? Sound WC policy is designed to minimize the time between cash expenditures on materials and the collection of cash on sales,” (Brigham, 1984:792–795). “The firm policy for managing in WC should design to achieve three goals such as, adequate liquidity, minimization of risk and contribution to maximizing firm's value,” (Hampton, 1998: 180).

Basically there are three approaches to financing alternative of WC.

- a. Aggressive Approach:** An aggressive policy calls for relatively smaller investment in CAs, with comparatively lower ratio of CAs to sales. As result, the firm adopting aggressive approach assume high risk, as it would find difficult to pay current bills. In time, lost in sales because of restrictive credit policy and interruption in production because of shortage of inventory. The more risky approach to follow is aggressive approach. “Here the firm attempts to employ more of the short term funds. Shorter the maturity schedule of a firm's debt obligation, the greater the risk that it will be unable to meet principal and interest payment and hence it is more risk approach. Cost of short term funds is cheaper than cost of long term funds so the return or profitability would increase but at the same time risk would also increase because of the greater amount of short term funds,” (Pradhan, 2004:353).

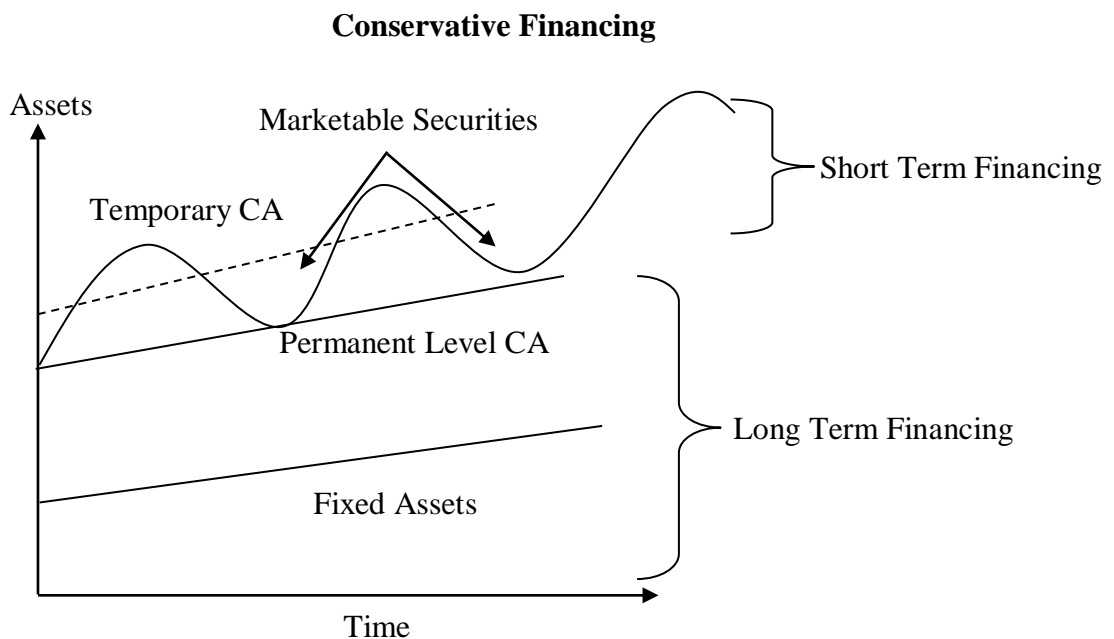
Figure: 2.2



(Sources: Pandey, 1999:830)

- b. Conservative Approach:** The less risky approach refers to financing all the assets by long term funds. “Here the short term requirements are financed with long term fund, which would necessitate the payment of interest for the use of funds when they are not needed,”(Pradhan, 2004:254) Under this policy the firms finance its permanent assets and a part of temporary CA with long term financing. Under this policy the firm has less risk of facing the problem of shortage of funds. “When the firm has no temporary CA, the long term funds released can be marketable securities to build up the liquidity position of the firm,” (Pandey, 1999:829).

Figure: 2.3

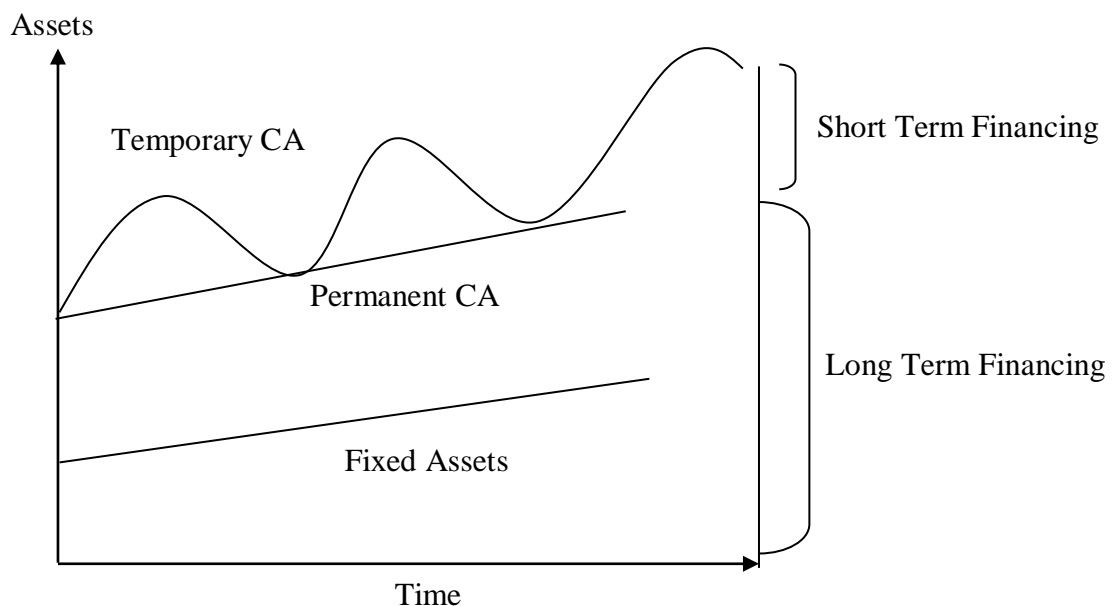


(Sources: Pradhan, 2004:354)

- c. **Hedging (Matching) Approach:** “It is a moderate approach towards financing which attempts to achieve a tradeoff between risk and return. The heading approach to financing suggests that each asset would be off set with a financing instrument of the same approximate maturity,” (Pradhan, 2004:353). i.e. when the firm fallow this approach, long term financing will be used to finance fixed assets and permanent CA and short term financing to finance temporary or variable CA. "Under this policy no short term financing will be used of the firm has a fixed CA need only," (Pandey;1999:828).

Figure: 2.4

Financing under matching Approach



(Source: Pandey, 1999:828)

There is conflict between long term and short term financing. Short term financing is less expensive than long term financing but at the same time short term financing involves greater risk than long term financing. The choice between long term and short term financing involves a tradeoff between risk and return. “The firm should keep in mind these two dimension-relative assets liquidity (level of CA) and relative financing liquidity (level of short term financing) of the WC management. A firm will be following a very conservative WC policy if it combines a high level of CA with high level of long term financing (low level of short term financing) such a policy will not be risky at all but would be less profitable. An aggressive firm on the other hand, would combine low level of CA with low level of long term financing. (High level of short term financing) This firm will have high profitability and high risk. In fact, the firm may follow a conservative financing policy to counter its relatively liquid assets

structure in practice. The conclusion of all this is that the consideration of assets and financing mixes are crucial to the WC management,” (Pandey, 1999:832).

In other words, WC management focuses on coordinated control of firm's CAs and CLs. A firm finances its CAs and CLs conservatively or aggressively. An aggressive assets management policy leads to.

- ❖ lower level of CAs
- ❖ A shorter cash conversion cycle
- ❖ Lower expenses and higher revenue leading to higher EBIT
- ❖ Higher turnover and effectively and aggressively managed and
- ❖ Higher risk and higher return.

(Sources: George E. Pinches, 1990: 481-490)

Conservative assets management practices have just the opposite effects.

Other thing being equal, the lower the CL, the more conservative a firm's liability management policies ,and the higher the level of CLs, the more aggressive the policy. An aggressive liabilities management policy result.

- ❖ higher level of CLs
- ❖ Shorter cash conversion cycle
- ❖ Lower interest cost (if short term rate are lower than long term rates) and
- ❖ Higher risk and higher required return.

Conservative policies have just the opposite effects.

As aggressive assets policy calls for a low level of CAs and a conservative policy calls for a higher level, likewise, an aggressive liability policy calls for a high a level of CL and a conservative policy calls for low level. “To much them G.E. Pinches prescribed the following rules,” (Pinches, 1990:491-500).

- ❖ If a firm has an aggressive CA position, it should counterbalance its risks by employing a conservative liability position.
- ❖ If a firm has a conservative CA position, it should counterbalance its risks by employing an aggressive liability position.
- ❖ If a firm has moderate CA position, it should counterbalance its risks by employing moderate liability position.

2.4 Review of Journals and Articles

Besides reviewing of books for conceptual thoughts some previous studies about WC management, Journals and Articles were also reviewed. Many published research studies, conducted by different management experts, are available in field of WC management. Working capital management is usually described as involving the administration of these assets name cash, marketable securities, receivables, inventories and the administration of current liabilities. “It means the working capital

management is concerned with the problem that arises in attempting to manage current assets. The current liabilities and current assets in the inter relationship that exists between them,” (Van Horn, 1970:82).

An organization needs to determine the size of WC as accurately as possible. A firm, therefore, should pay proper attention to the determinants of WC, which are different from organization to organization. “In Nepalese corporation, WC management assumes more significance as investment in WC is high. However, average investment in WC declined over a period of time, with respect to investment I money assets; non-manufacturing corporations invested more in money assets as compared to Manufacturing Corporation. The significance of cash, receivable and inventory are due to the fact that investment in those components of WC has increased over time in Nepalese corporation. A sufficient attention should, therefore, be diverted to those variables management,” (Pradhan & Koirala, 1982:32)

Radhe Shyam Pradhan & Kundan Dutta Koirala, (1982) have jointly conducted a study on “*Working Capital Management in Nepalese Corporation*,” They have focused on evaluating the WC position of the selected manufacturing and non-manufacturing corporations of Nepal. The specific objectives of that study as follows:

- ❖ To assess the size of investment in each type of CAs.
- ❖ To study the change in the size of investment in each type of CAs over a period of time.
- ❖ To point out the need to control investment in the size of each, receivable and inventory.

This study stated that the majority of Nepalese corporation was facing the problem of formulation and implementing the suitable policy as to CAs management. It was not known to many of them, whether there was a need to control investment in receivable and inventory. In other words, it was not known whether Nepalese corporations have to follow a kind of liberal or conservative type of WC policy with respect to cash, receivable and inventory. It's clear that huge investment has been made in the WC by Nepalese corporations. Increase in sales would lead to increase in WC. So, they said that there was need to control investment in WC, if the proportion of WC to sales increases at a faster rate. They also found that WC management was more difficult to manage than fixed capital. For Manufacturing Corporation, CA management is important because, it takes more time; where as its importance to nonmanufacturing corporation is due to the fact that requires larger investment. Inventory management is of great significant of Manufacturing Corporation and the management of cash and receivable are of great significance to Non-Manufacturing Corporation. The major factor affecting the larger investment in receivable was found to the liberal credit policy followed by Nepalese corporation. Similarly, the major reason for holding inventories in Nepalese corporation was to facilitate smooth operation of production and sales but not to take advantage of price increased.

Radhe Shyam Pradhan, (2002) has studied on “*The Demand for Working Capital by Nepalese Corporation.*” He has selected nine manufacturing public corporation with 12 years dates for 1973 to 1984. Those nine corporations has represented about 80 percent of Nepalese manufacturing public corporations established before 1973 Regression analysis has been used or adopted as the tools of analysis. The earlier studies concerning the demand for cash and inventories by business firms did not report unanimous finding. A lot of controversies exist with respect to the presences of economies of scale, role of capital cost, and capacity utilization rates and the speed with which actual cash and inventory are adjusted to desired cash and inventories respectively. That study paper had investigated these various issues in the context of manufacturing public corporation of Nepal. The pooled regression results showed the presence of economies of scale with respect to the demand of WC and its various components. The regression results suggested strongly that the demand for WC and its components is a function of both sales and their capital costs.

Shree Krishna Paudel, (2009) has studied on “*A Study on Working Capital of Nepalese Manufacturing Companies*”. Focused on the liquidity, turnover and profitability position of those selected PEs. The studies found that majority of PEs were unable to maintain adequate liquidity position. The turnover and profitability aspect of the PEs were unsatisfactory. In his study he has brought certain issues and problems faced by PEs such as, lack of appropriate financing planning, negligence of WC management and deviation between liquidity and turnover to assets. At last, he had made some suggestive measures to overcome from the above issues i.e. identification of required funds, regular check of accounts, positive attitude towards risk and return, development of management information system and determination of right combination of source of funds (i.e. short term and long term funds) to finance and choice appropriate WC policy.

2.5 Review of the previous Thesis

Pooja Amatya, (2007) has conducted a research on “*A Comparative Study of Working Capital of Manufacturing Companies,*” an unpublished master level thesis, submitted to Shanker Dev Campus, Faculty of Management, T.U. The study is based on Dabur Nepal and Nepal Lever Ltd.

Main objectives:

- To examine the liquidity and profitability position of Dabur Nepal and Nepal Lever Ltd.
- To examine the cash conversion cycle.

Findings:

- ❖ The liquidity and profitability position of the selected manufacturing companies are positive and satisfactory.
- ❖ The cash conversion cycles of the enterprises are positive.

Laxmi Joshi, (2007) has conducted research on “A Study on *Working capital management of Nepalese Manufacturing Companies*,” an unpublished master level thesis, submitted to Shanker Dev Campus, Faculty of Management, T.U.

The main objectives are:

- To assess the liquidity and profitability position of Nepalese Manufacturing Companies.
- To make an overall comparison of WC management by various manufacturing companies.

The main findings of the study are:

- ❖ The turnover position of the Nepalese manufacturing companies is very low and high level cost.
- ❖ Current structure levels of the Nepalese Manufacturing companies were not stable.
- ❖ CCC of the Nepalese manufacturing companies was negative position.

Shyam Kumar Shrestha, (2010) has conducted a research study on “*Working capital management of selected manufacturing companies in Nepal*,” an unpublished master level thesis, submitted to Central Department, Faculty of Management, T.U. The study is covered only six fiscal year data of 2004/05 AD to 2009/10 AD. The study is based on Unilever Ltd. Bottlers Nepal, Dairy Development Corporation, Nepal Tea Development Corporation and Nepal Drugs.

Major objectives:

- To examine working capital position of the selected companies.
- To analyze risk and return of working capital position.
- To assess turnover of working capital.

Finding:

- ❖ Those liquidity and profitability position of all selected companies are satisfactory.
- ❖ The overall selected manufacturing companies are positive on other correlation coefficients between various components of working capital with moderate sales.

Nagendra Ratna Koirala, (2011) has conducted a research study on “*Working capital Management Practice in Manufacturing Companies of Nepal*,” an unpublished master level thesis, submitted to Shanker Dev Campus, Faculty of Management, T.U. The study is covered seven fiscal year data of 2002/03 to 2008/09 AD. The study is based on Bottlers Nepal Limited.

Major objectives:

- To examine the structure of working capital in BN Ltd.
- To know the working capital policy followed by Bottlers Nepal Limited.
- To analyze the short term liquidity, assets utilization and profitability position of BN Ltd.

Findings:

- ❖ The BN Limited should be positive relationship between CAs and CLs.
- ❖ The liquidity position of company has found not favorable but the ratio is less than 2:1.
- ❖ The profitability position of BN Limited has been analyzed from various angles.

Kalpna Shrestha, (2012) has done a research work entitled “*Working Capital Management of Selected Manufacturing Companies in Nepal,*” an unpublished master level thesis, submitted to Shanker Dev Campus, Faculty of Management, T.U. The study is covered only six fiscal year data of 2005/06 AD to 2011/12 AD. The study is based on Unilever Nepal, Bottlers Nepal, Dairy Development Corporation and Dabur Nepal Limited.

Major objectives:

- To analyze cash conversion cycle.
- To explore the position of working capital in selected companies.
- To analyze risk and return of working capital.

Findings:

- ❖ The liquidity and profitability position of all selected companies are good and satisfactory.
- ❖ Cash conversion cycles of the selected companies are average.

Balaram Panday, (2013) has conducted a research study on “*Comparative Analysis of Working Capital Management of Chilime Hydropower and Butwal Power Company Limited,*” an unpublished master level thesis, submitted to Shanker Dev Campus, Faculty of Management, T.U. The study is covered only five fiscal year data of 2063/64 to 2067/68 B.S. The study is based on Chilime Hydropower and Butwal Power Company Limited.

Major objectives:

- To evaluate the credit policy of CHCL and BPCL, its effectiveness.
- To see the position of working capital of selected hydropower company.
- To see working capital management of the hydropower companies and analyzes their assets structure and their implications.

Findings:

- ❖ Current assets to total assets ratios of companies are decreasing over the study period.
- ❖ BPCL has been suggested to improve its receivable conversion period to collect its amount.
- ❖ The companies should maintain positive relationship between CAs and CLs.

Now, Nepal has followed the policy of liberation, privatization and globalization. Nepal has got the member of WTO, so, it is necessary for Nepalese Manufacturing companies to compete with global market and it is challenging work. Now many more manufacturing companies have been established in Nepal and it is very critical period for the survival of these manufacturing companies because of the political situation of the nation. Many more studies about Nepalese Manufacturing Companies were done in fast decades. But WC aspects of the manufacturing industrial sectors were neglected. I think that it is necessary to bring out a fresh study of manufacturing companies with respect to WC management which plays vital role for success and failure of firm. This study is based on different variable and tools using latest data and focuses only on WC management aspect of selected manufacturing companies.

2.6 Research Gap

All the above studies are concerned with the research entitled “Working Capital Management”. Some researcher was made on manufacturing companies. There are many changes taken place in the working capital management and production process compared to the last few years. So, fresh study related to working capital management of Dabur Nepal Private Company was done in this research. Both financial as well as statistical tools like ratio analysis, turnover, cash conversion cycle, mean, standard deviation, coefficient of correlation, probable error are used in this research. Almost all the ratios were applied to cover the analytical part and fulfill the objective of this study. It involves more recent data of Dabur Nepal Private Limited for five fiscal years hence, this study than the previous studies.

Chapter –Three

Research Methodology

3.1 Research Design

This study tries to make comparative and establish relationship between two or more than two variables. So, this study is analytical and descriptive, to facilities the research the collect data of the concerned manufacturing company were tabulated and different financial tools were used to analysis and find out the real condition of working capital.

Descriptive research design is essentially a fact finding approach relative largely to the present and abstracting generalization by the cross sectional study of the current situation. Analytical approach is followed to the parametric and nonparametric test of the data. It is the process of micro analysis and appraisal to the data.

3.2 Nature and Sources of Data

To achieve objective of the study, the secondary data were used. The secondary sources of data are the audited final report (P/L a/c and balance sheet) of the selected company (DNL). All these secondary data and information were properly arranged and synthesized, tabulated and collected in accordance with the requirement of the study.

The secondary data and information were collected from the various publications and the data available in the record of selected manufacturing company. The major sources of secondary data are as follows:

- ❖ Various documents (i.e. accounting or financial reports) of Dabur Nepal Pvt. Ltd.
- ❖ Various survey conducted by selected company and other related parties.
- ❖ Different bulletin and annual reports of Dabur Nepal Pvt. Ltd.
- ❖ Statistical year book of Nepal (CBS), various institutions annual reports, management, books, journal articles various research studies, website of related company and SEBON etc, have been used.

The secondary data were collected from website and annual reports of SEBON and annual report of Dabur Nepal Pvt. Ltd.

3.3 Data Collection Technique (Population & Sampling)

In this study, populations are the listed manufacturing companies in Nepal Stock Exchange Ltd, Nepal. There are about 28 manufacturing and processing companies listed in SEBON, Nepal. Out of them only one selected manufacturing company was chosen for study. The listed manufacturing companies are as follows: (Annual Report, SEBON, Nepal)

Table No.3.1

Listed Manufacturing Companies

1	Arun Vanaspati Uddyog Ltd.	16	Nepal Khadhya Uddyog
2	Birat Shoes Ltd.(Old)	17	Morang Sugar Mills Ltd.
3	Biratnagar Jute Mills Ltd.	18	Bottlers Nepal (Tarai) Ltd.
4	Bottlers Nepal Ltd.(Balaju)	19	Nepal Lever Ltd.
5	Butuwal Spinning Factory Ltd.	20	Nepal Battery Company Ltd.
6	Bhrikuti Pulp and Paper Nepal Ltd.	21	Nepal Plywood and Bobbin Company Ltd.
7	Harisiddhi Brick & Tile Fac. Ltd.	22	Nepal Lube Oil Ltd.
8	Dugar Group of Company Ltd.	23	Nepal Banaspati Ghee Uddyog Ltd
9	Gorkhali Rubber Uddyog ltd.	24	Shree Ram Sugar Mills Ltd.
10	Himalayan Distillery Ltd.	25	Shree Raghupati Jute Mills Ltd.
11	Nepal Bitumin and Barrel Udhyyog	26	Sayapatry Color Lab Company Ltd.
12	Dabur Nepal Pvt. Ltd.	27	Dairy Development Corporation
13	Hulas steel industries (P.) Ltd.	28	Uniliver Nepal Ltd.
14	Himal Cement Company Ltd.		
15	Jyoti Spinning Mills Ltd.		

All listed manufacturing Companies were not included in this study because of unavailability of data of some companies for the relevant study period.

The listed manufacturing company selected for study is given in following table.

Table: 3.1

Selected Manufacturing Company

S.N.	Name of the Company	Established date
1	Dabur Nepal Pvt. Ltd.	1989

The data of the selected manufacturing company of five fiscal years from 2008/09 to 2012/13 were collected.

3.4 Data Analysis Tools

The analysis of data consists of organizing, tabulating and applying statistical analysis. Here, the collected data were classified, tabulated and analyzed by using relevant financial and statistical tools. The collected data were presented and analyzed by using diagram and chart.

The following quantitative and qualitative methods were applied for analyzing working capital management in the Dabur Nepal Private Limited.

- a) Quantitative method
 - 1. Financial tools
 - 2. Statistical tools
- b) Qualitative method
 - 1. Opinion survey

3.4.1 Quantitative Method

The researcher has used two importance tools for measuring the effectiveness of WC management of Dabur Nepal Private Limited. To obtain the relationship in between various variables the financial tools (i.e. Ratio analysis) and statistical tools (i.e. Karl's Pearson's coefficient (r) and regression analysis were used.

3.4.2 Qualitative method

Quantitative method doesn't help to assess all hidden information so; qualitative method is also used in this study. Thus whenever quantitative method is insufficient, opinions survey method is used to make study more meaningful. Personal interview is taken with the key person of the selected company. Lists of questions were distributed to the selected persons of the sampled manufacturing company. On the basis of his replies relevant analysis were made.

Financial Ratio Analysis

Ratio analysis is a powerful tool for financial analysis."A ratio is defined as the relationship between two or more variables or mathematical expression. In financial analysis, a ratio is used as benchmark for evaluating the financial position and performance of firm," (Pandey, 1999: 830) It is useful to make financial expression more meaningful and to draw appropriate conclusion from them. Financial analysis is the process of identifying the financial strengths and weakness of the firm by properly established relationship between the items of the balance sheet and the profit and loss account. Financial ratio analysis can be undertaken by management of the firm or by parties outside the firm, Viz, owners, creditors, investors and others. The nature of the ratio analysis is different depending on the purpose of the analyst. So, to examine the WC management or WC policy of manufacturing company, ratio concerted with WC has been extensively used in this study.

The WC has been studied by analyzing the following ratios.

- i. **Ratio of Cash to Current assets (CCA):** The ratio studies what percentage of CAs is the form of Cash. It is defined as,

$$CCA = \frac{\text{Cash and bank balance}}{\text{Current Assets}} \times 100$$

The higher ratio is the more liquid the current assets group. A large ratio may be taken as a sign of poor cash management.

- ii. **Ratio of Receivable to Current Assets (RCA):** This ratio shows what percentage of CAs is in the form receivable, It is stated as,

$$\text{RCA} = \frac{\text{Receivable}}{\text{Current Assets}} \times 100$$

An increase in the ratio shows that the management of receivables has an important bearing on the performance of the enterprise. Higher RCA indicates the liberal credit policy of enterprise.

- iii. **Ratio of Inventory to Current Assets (ICA):** This ratio shows that what percentage of CA is in the form inventories. It is defined as,

$$\text{ICA} = \frac{\text{Inventories}}{\text{Current Assets}} \times 100$$

The increase in the ratio an indication of liberal inventory policy followed by the company.

- iv. **Ratio of Current Assets to Total Assets (CATA):** This ratio indicates what percentage of the company total assets are current. It is specified as.

$$\text{CATA} = \frac{\text{Current Assets}}{\text{Total Assets}} \times 100$$

As this ratio increase, both the firm's profitability and risk world decrease.

- v. **Current Assets Turnover Ratio (CATR):** The ratio indicters the number of times the average currents assets are turned over during the year. It shows the efficiency of utilizing CAs. The ratio shows requirement of WC for one rupee of sales.

$$\text{CATR} = \frac{\text{Sales of the year}}{\text{Current Assets}}$$

An increase in the ratio shows improvement in CAs utilization.

- vi. **Net Working Capital Turnover Ratio (NWTR):** The ratio indicates the number of times the average net WC is turned over during the year.

$$\text{NWTR} = \frac{\text{Sales of the year}}{\text{Net working capital}}$$

- vii. Current Ratio (CR):** It is the quantitative relationship between current assets (CAs) & Current Liabilities (CLs). Here, CAs is those, which can normally be converted into cash within a year. These include cash, Marketable securities, A/R, inventories and so on. On the other hand, CLs refers to those obligations, which must be paid within an accounting cycle. These include accruals, A/Payable, N/Payable and so on. It is basic yardstick of measure in the solvency and liquidity position of the firm. It indicates the ability for payment of current debt from current. It is defined as.

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

Higher the current ratio better is the liquidity position. For many type of business 2:1 is considered to be an adequate and better ratio.

- viii. Net Profit (Loss) Margin ratio (NPM):** It establishes a relationship between net profit and sales of the firm. It shows a firm's ability to generate net income per rupee of sales and is calculated as:

$$NPM = \frac{\text{NPAT}}{\text{Sales of the year}}$$

Higher net profit margin indicates firm's ability to generate net income out of per rupee of sales. A higher ratio is an indication of the higher overall efficiency of the business firm and better utilization of total resources and vice versa.

- ix. Return on Total Assets (ROA):** In measure the return on investment on total assets. A more general ratio used in the analysis of profitability is the ROA ratio.

$$ROA = \frac{\text{NPAT}}{\text{Total Assets}}$$

- x. Return on Working Capital (ROW):** In measure the return on investment on total working capital.

$$ROW = \frac{\text{NPAT}}{\text{Working Capital}}$$

- xi. Total Assets Turnover Ratio (TATR):** The ratios indicate the number of times a total asset is turned over during the year.

$$TATR = \frac{\text{Sales of the year}}{\text{Total Assets}}$$

Cash Conversion Cycle (CCC)

Cash conversion cycle refers to the length of time required to convert raw materials into finished goods and then to sell these goods. It is the length of time from the payment for the purchase of raw materials to the collection of accounts receivable generated by the sale of the final product. In another world it measures the length of time the firm has tied up in working capital.

The Cash conversion cycle represents the net time intervals in days between actual cash expenditure of the firm and ultimate recovery of cash. These model focuses on the length of time between the companies makes payments and when it receives cash inflows. The different between the operating cycle and the payable period is the cash conversion cycle, where operation cycle measures the total number of days from purchase to when cash is received. It is calculated as:

$$\text{Cash Conversion Cycle} = \text{Operation Cycle} - \text{Payable Deferral Period}$$

A firm's operating cycle had two components: Inventory conversion period and receivables collection period.

Or in simply,

$$\text{CCC} = \begin{array}{|c|} \hline \text{Inventory} \\ \text{Conversion Period} \\ \hline \text{(ICP)} \\ \hline \end{array} + \begin{array}{|c|} \hline \text{Receivable} \\ \text{Conversion Period} \\ \hline \text{(RCP)} \\ \hline \end{array} - \begin{array}{|c|} \hline \text{Payable Deferral} \\ \text{Period} \\ \hline \text{(PDP)} \\ \hline \end{array}$$

Cash cycle shows how much of time does cash generally collected by the firm. The cycle consists of the following periods.

❖ Inventory Conversion Period (ICP)

It is length of time required to convert raw materials into finished goods and then to sell these goods. It is calculated by dividing inventory by sales per days as denoted by:

$$\text{ICP} = \frac{\text{No. of days in a year}}{\text{Inventory turnover}}$$

$$\text{Where, Inventory turnover} = \frac{\text{Sales of the year}}{\text{Inventory}}$$

❖ **Receivable Conversion Period(RCP)**

It is also refers to as days sales outstanding (DSO) or average collection Period (ACP) is the average length of time required to collect accounts receivable after products have been sold in credit. Or, it is the length of time required to convert the firm's receivable into cash, that is, to collect cash following a sales. It is calculated as average receivables divided by credit sales per day as denoted by;

$$\text{RCP} = \frac{\text{Receivables}}{\text{Credit sales per day}}$$

❖ **Payable Conversion (Deferral) Period (PCP)**

It is length of time between the purchase of raw materials and labor and the payment of cash for them. It also called payable conversion period (PCP)

$$\text{PCP} = \frac{\text{Payables}}{\text{Cost of goods sold}/360} = \frac{\text{A/C Payables}}{\text{Credit purchase}/360}$$

The firm's goal should be to shorten its CCC as much as possible without hurting operations. By reducing ICP and RCP and lengthening the PCP, CCC can be shortening. This would improve profit, because the shorter the CCC the smaller the need for external financing and thus the lower the cost of such financing.

Du-Pont System of Financial Analysis

It is a comprehensive model to represent an integrated view on financial analysis of a firm. Do- Pont system of financial analysis was first propounded and used by Do-Pont Corporation U.S.A. The Du-Pont system of financial statement analysis is developed by the financial experts of the Du-Pont company by putting together the effects of profitability, investment and the equity ratios. According to Du-Pont system change in any variable either in assets or in total cost items have a direct impact on return on equity. This tool is used to showing the relationship between Return on equity (ROE), Profit margin, Assets turnover and Equity multiplier.

Du-Pont equation defines ROE as a product of return on assets (ROA) and equity multiplier and ROA as a product of Profit margin and total assets turnover.

Return on equity (ROE) = Return on Assets × Equity Multiplier

$$= \frac{\text{Net income}}{\text{Total assets}} \times \frac{\text{Total assets}}{\text{Total equity}}$$

The return on equity measures the return on the owner's investment in the firm. Higher ratio of return on equity is better for owner.

Return on assets (ROA) = Profit margin × Total assets turnover

$$\frac{\text{Net income}}{\text{Total assets}} = \frac{\text{Net income}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Total assets}}$$

The higher the firm's return on assets the better it is doing in operation and vice versa.

3.4.1.2 Statistical tools

Statistical methods are the mathematical techniques used to facilitate the analysis and interpretation of numerical data secured from individuals or groups of observation from a single individual. Statistical method studies only a group of individual but not a single unit. An Introduction of the statistical tools which have been used in this study is given below.

Karl Pearson's Correlation coefficient Method

Karl's Pearson's method is most widely used method of measuring the relationship between two variables. The relation between two variables say 'x' and 'y' for a given set of 'n' observation as defined by Pearson's correlation coefficient is measured by 'r'

$$r = \frac{\text{Cov}(x, y)}{\sigma_x, \sigma_y}$$

Where, Cov (x,y) = Covariance between variable x and y is given by

$$\frac{A = \pi r^2 \sum(x - \bar{x})(y - \bar{y})}{n}$$

$$\text{or, } r(x, y) = \frac{\sum xy}{n\sigma_x, \sigma_y}$$

$$\text{Where, } x = (x - \bar{x})$$

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

σ_x = Standard deviation of x series and equal to

$$\sqrt{\frac{\sum x^2}{n}} = \sqrt{\frac{\sum(x - \bar{x})^2}{n}}$$

σ_y = Standard deviation of y series is given by

$$\sqrt{\frac{\sum y^2}{n}} = \sqrt{\frac{\sum(y - \bar{y})^2}{n}}$$

$$\bar{x} = \text{mean of variable x}$$

\bar{y} = mean of variable y

n = number of pairs of x and y observation.

Here the value of coefficient can't more than +1 & less -1 than i.e. its value lies between the range of +1 and -1. If the value of coefficient is near +1 there is positive correlation and if the value is near -1 there is negative correlation between two variables. But if the value is zero there is no correlation exists between variables.

The degree of reliability of computed correlation can be judged with the help of its probable error,

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

Where,

r = Correlation coefficient

n = Number of pairs of observation

$$\frac{1 - r^2}{n} = \text{Standard error of correlation coefficient (S. E.)}$$

$$\text{P.E.} = 0.6745 \times \text{S.E.}$$

If $r < \text{P.E.}$ than the correlation coefficient is insignificant.

If $r > \text{P.E.}$ that correlation coefficient is significant

Where 6 P.E. = 6 times of probable error.

The upper and lower limits with in which the correlation coefficient of the population is expected to lay are $(r + \text{P.E.})$ and $(r - \text{P.E.})$ respectively.

3.4.2 Qualitative Method

Qualitative method does not pick up all hidden information so, qualitative method is also used in this study. Thus whenever quantitative method is insufficient, opinions survey method is used to take study more qualitative. Personal interview is taken with the key person of selected companies. A list of questions has to be asked to the selected persons of the sample manufacturing company. On the basis of their replies analysis can be made.

3.5 Definition of Key Terms

The annual report published by various manufacturing company has its own format for published the financial data. It is therefore; better to define some key terms so as to avoid misunderstanding.

Sales: Sales means trading sales only and it does not include miscellaneous sales.

Fixed Assets: The fixed assets of the selected manufacturing companies consists of ordinary fixed assets like land and building, plant and machinery, furniture and fixtures, vehicles and office equipment etc. In addition to these assets investment and under construction works have also been included under fixed assets.

Investment: Investment includes shares of other companies and development bonds

Total Assets: It is the total of assets side of B/S i.e. sum of CA and fixed assets.

Current Assets: Current assets in the companies compare usual items like cash in hand and at bank, account receivable, and inventories. But in addition, balance sheet of some the company shows other miscellaneous current assets. In this study, CAs includes the sum total of cash, receivable, inventories and miscellaneous CAs. In short CAs includes those assets which can be converted into cash within a year.

Current liabilities: These liabilities include account payable short term bank loans and reserve and provision created for specific purpose. But general reserve and reserve for future contingencies are not included in CLs though they are sometimes shown under the heading of CLs by one of the company in other word all the payment that has to be made by the company within an accounting period include in CLs.

Equity: Equity consists of the amount of equity capital, reserves and surpluses/deficiencies.

Long term fund: These include equity plus long-term loans from financial institutions.

Receivables: It includes trade and other debtors.

Cash and bank balance: It includes the cash in hand and cash at bank.

Inventories: It includes stock of raw materials, semi-finished goods and finished goods as well as other operating goods and spares.

Payable: It includes the amount of sundry creditors, which the company has to pay within a year.

Chapter - Four

Presentation and Analysis of Data

4.1 CAs and CLs of Dabur Nepal Pvt. Ltd.

The position of CAs and CLs were analyzed for the period of five fiscal year of Dabur Nepal Private Limited from 2008/09 to 2012/13. The position of CAs and CLs of Dabur Nepal private Limited are given in the following table.

Table: 4.1

Levels of Total Current Assets and CLs in DNL

(NRs. in Millions)

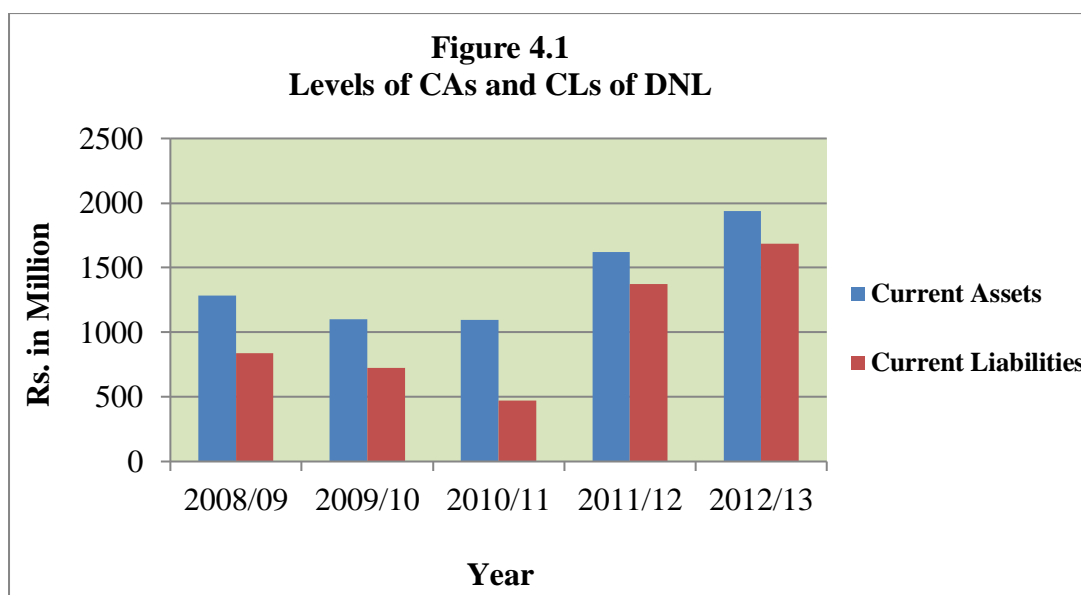
Year	Current Assets	Current Liabilities
2008/09	1,282.43	837.28
2009/10	1,102.90	723.60
2010/11	1,093.90	472.40
2011/12	1,623.36	1,373.84
2012/13	1,938.76	1,687.97
Average	1,408.27	1,019.02

(Sources: Annual Reports), Annex 1

The table 4.1 shows that variation in the CAs level of Dabur Nepal Private Limited during the five fiscal years. The table shows that CAs varies from Rs.1,282.43m to Rs.1,938.76m during the fiscal years from 2008/09 to 2012/13 and CLs varies from Rs.837.28m to Rs.1,687.97m. It shows that the company was not able to maintain consistency on holding working capital. The average level of CAs of DNL should be Rs.1,408.27m for the period. It shows that DNL has adopted aggressive assets management policy during the fiscal year 2008/09 to 2010/11 but shifted towards conservative policy from the fiscal year 2011/12 to 2012/13 because level of CAs is lower than average level. But the DNL followed conservative approach of assets management by using higher level of CAs than the average level of CAs.

Similarly, there is widely variation in the level of CLs of DNL. The table 4.1 shows that the average level of CLs is Rs.1,019.02m. The highest level of CLs is Rs.1,687.97m. in the fiscal year 2012/13 and lowest level of CLs is Rs.472.40m. in the fiscal year 2010/11. The company also has followed conservative Liabilities management approach from the fiscal year 2008/09 to 2010/11 year. Since level of CLs lower than the moderate level. But it has adopted aggressive policy of CLs management during the fiscal year 2011/12 and 2012/13 because its level of CLs higher than the moderate level of CLs.

The yearly levels of CAs and CLs are presented in the following die gram.



. 4.2 Net Profit and Net WC

The profitability of Dabur Nepal Private Company varied widely during the study period. The profits of the company were in fluctuating trend during the study period. Higher net profit, lower level of working capital is an indication of aggressive approach of return on investment in working capital. Profit is an indication of return on investment in working capital.

The Net working capital of a firm is a difference between their total CAs and CLs. The net working capital indicates a margin of safety to the creditors. It also measures the level of CAs and CLs because liquidity position is closely related with the net WC. Higher net working capital indicates higher level of CAs and lower level of CLs and vice versa. Higher level of NWC is supposed to be better but too much NWC indicates is an indication of higher liquidity. It is a very satisfaction to maintain an appropriate liquidity in the company.

Table: 4.2

Position of Net Profit and Net WC of DNL

(NRs. in Millions)

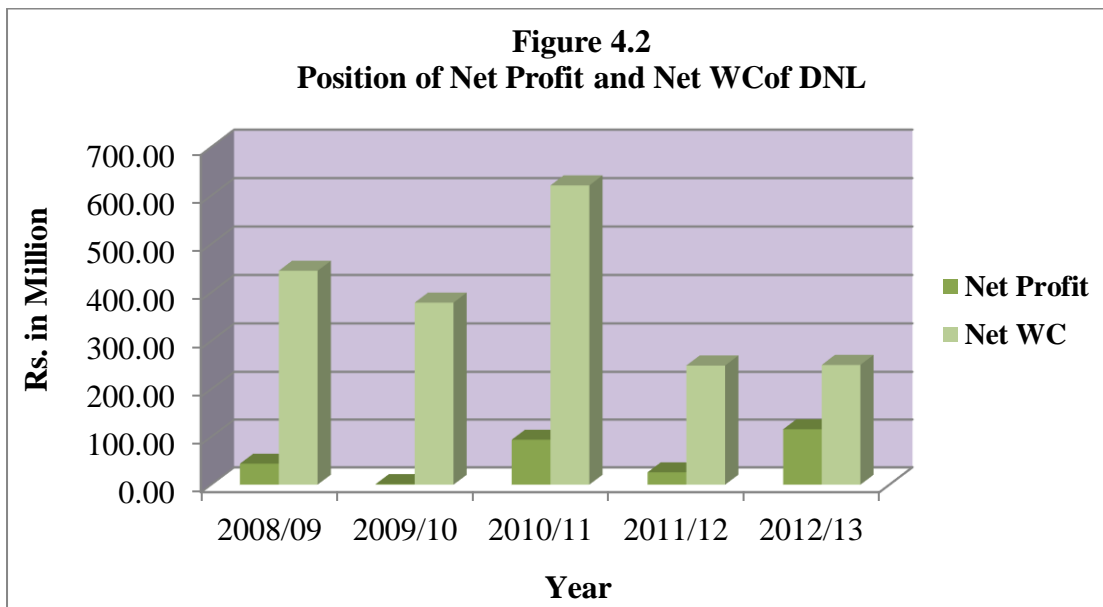
year	Net Profit	Net WC
2008/09	44.08	445.15
2009/10	1.40	379.30
2010/11	94.40	621.50
2011/12	25.92	249.52
2012/13	116.19	250.79

Average	56.40	389.25
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(Source: Annex 2)

The table shows that the net profit of company was positive during the study period. The average profit of DNL is positively Rs. 56.40m. The highest profit earned during the study period was Rs.116.19m in the fiscal year 2012/13 and lowest profit was Rs.1.40m in the fiscal year 2009/10. The company has been able to earn higher level of net profit than the average net profit in the fiscal year 2010/11 and 2012/13 But in the fiscal year 2008/09, 2009/10 and 2011/12 the profit remained lower than the average net profit.

The above table also shows the level of Net working capital of DNL. The highest level of WC was Rs.621.50m in the fiscal year 2010/11 and lowest level of WC was Rs.249.52m in the fiscal year 2011/12. The table shows that the average level of working capital of DNL is Rs. 389.25m.



4.3 Analysis of Liquidity Position

The liquidity position measures the rupees of CAs available for each rupee of CLs. The major objective of adopting appropriate WC policy is to maintain appropriate and optimum liquidity in order to enable the firm to meet current or short term obligations, when they became due for payment. For analyzing the liquidity position of DNL its current ratios for the five fiscal years are given below.

Table: 4.3

Current Ratio of DNL

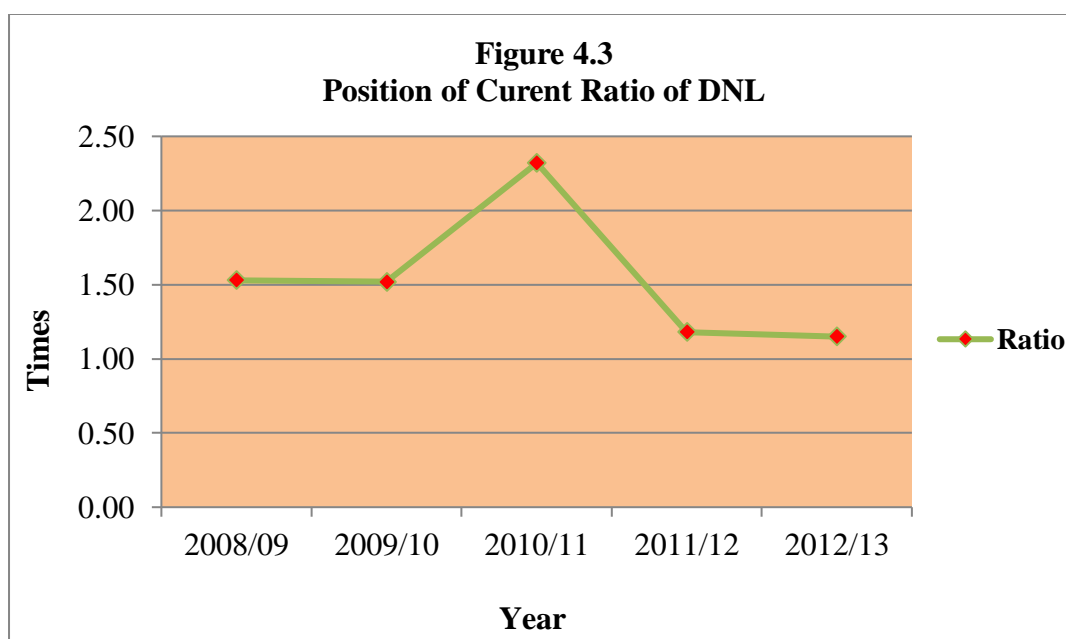
(In Times)

year	Current Assets	Current Liabilities	Ratio
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2008/09	1,282.43	837.28	1.53
2009/10	1,102.9	723.60	1.52
2010/11	1,093.9	472.40	2.32
2011/12	1,623.36	1,373.84	1.18
2012/13	1,938.76	1,687.97	1.15
Average	1,408.27	1,019.02	1.54

(Sources: Annex 1)

Higher the current ratio is better the liquidity position, for any type of business 2:1 is considered to be a standard and better ratio. The higher the liquidity position, the lesser the needs for additional WC since it will be better for him to have the best use of existing liquidity position. In the table 4.3, if the manufacturing company has higher liquidity position than standard, it must raise the amount of working capital. Out of DNL has maintained reasonable liquidity position because his current ratio is nearly standard ratio 2:1. The average CR of DNL is 1.54 times and its current ratio was 2.32 times in the fiscal year 2010/11 was better than the average ratio. But lowest current ratios were during the fiscal year 2011/12 & 2012/13 than the average current ratio and nearly current ratios of the fiscal year 2008/09 & 2009/10. So, this has controlled to maintain liquidity position. The CR of DNL is changeable during the study period by graphic method.



4.3.1 Net Working Capital Turnover

The excess amount of CAs over CLs is net working capital. This capital constitutes a margin of safety or buffer for maturing obligations within ordinary operating cycle of a business. The company with higher turnover of assets needs lesser working capital as compared to company having lower turnover. The net working capital turnover indicates the number of times the net working capital is turned during the fiscal year. The calculated NWTR of DNL is given below.

Table: 4.4

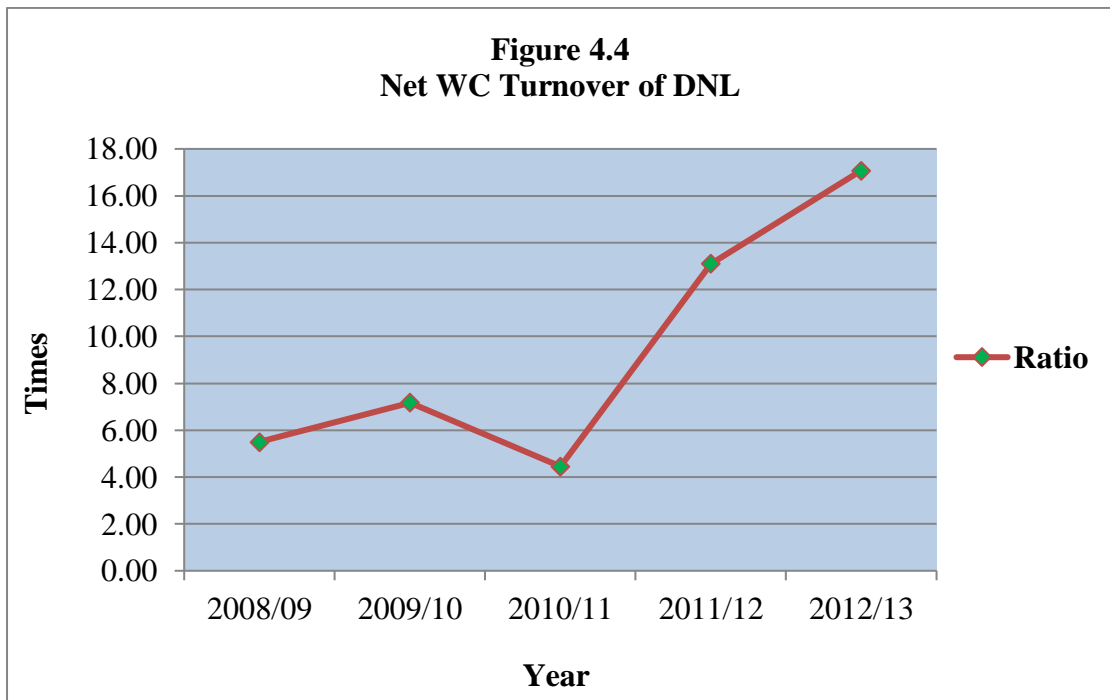
Net WC Turnover Ratio of DNL

(In times)

Year	Sales	Net WC	Ratio
2008/09	2,447.5	445.15	5.50
2009/10	2,719.95	379.30	7.17
2010/11	2,765.2	621.50	4.45
2011/12	3,269.17	249.52	13.10
2012/13	4,283.88	250.79	17.08
Average	3,097.14	389.25	9.46

(Sources: Annex 2, 3, Table 4.2)

The table 4.4 shows that the positive average net working capital turnover is 9.46 times. Positive turnover of Net WC indicated that this net working capital is positive and this company is suffering from excess CAs over CLs. So, it was growing need to make effective utilization of existing CAs to increases these turnover. The highest ratio of DNL was 17.08 times in the fiscal year 2012/13 and lowest ratio was 4.45 in the fiscal year 2010/11. Net working capital turnover ratios in the fiscal year 2011/12 and 2012/13 are higher than the average ratio and lower ratios are 5.5, 7.17 and 4.45 times in the fiscal year 2008/09 to 2010/11. The net WC turnovers of DNL are changeable during the study period by graphic method.



4.3.2 Return on Net Working Capital

The ratio provides reasonable basis to forecast the requirements of additional capital. It show whether the return of a firm is justifiable to its net working capital or not. It measures the effectiveness of CAs. Higher the NWC means the level of the CAs over than CLs in the company that means if there is low level of WC used by firm these enjoy higher return i.e. this follow aggressive approach of WC. If there is higher level of NWC then ROW is low that means the firm adept conservative approach of WC. Firm's profitability greatly affects these WC needs because net profit is also a major source of WC.

Table 4.5 shows the relationship between NPAT and net Working Capital of Dabur Nepal Limited during the period of study.

Table 4.5

Return on net WC of DNL

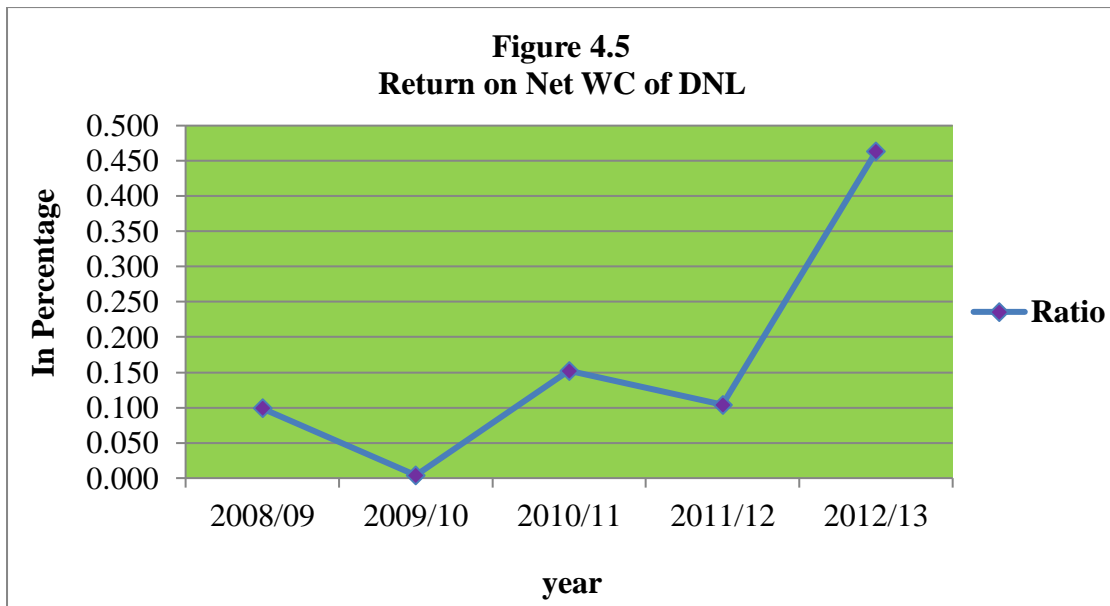
(In Percentage)

Year	Net Income	Net WC	Ratio
2008/09	44.08	445.15	0.099
2009/10	1.40	379.30	0.004
2010/11	94.40	621.50	0.152
2011/12	25.92	249.52	0.104
2012/13	116.19	250.79	0.463
Average	56.40	389.25	0.164

(Source: Table 4.2 and Annex 2)

The above table shows that the average return on net working capital of DNL is 16.40%. The higher return on Net WC was 46.30% in the fiscal year 2012/13 and lowest return was 0.4% in the fiscal year 2009/10. Net profit is sources of working capital, so, the DNL needs additional WC because this meet these WC need by utilizing net profit while. But DNL is loss profit in the fiscal year 2008/09 to 2009/10 than the average return. So, that DNL forecast to need high net profit in Nepal. Lower working capital should be corrected by utilizing CAs effectively, so as to get greater profitability and increase return on Net working capital. Negative Profitability on working capital was the result of slow moving inventory, defective receivables management and inefficient short term investment policy.

The Return on Net WC of DNL is changeable during the study period by graphic method.



4.4 Composition of Working Capital

To operate any business organization two kinds of assets are necessary or in other words, any business firm invests his capital in fixed assets and current assets. Fixed assets are long term nature but for day to day operation business firm needed to invest his same portion of capital fund in current assets. Cash, inventory, receivable and other marketable securities are the main components of CAs. Here composition of WC means the variables of CAs. Any organization needs to determine the size of WC as accurately as possible. Neither under investment nor over investment in WC is to be preferred. A firm should pay proper attention to determine the size of WC. The composition of CAs of DNL is analyzed below.

4.4.1 Investment in Current Assets

To run day to day operation smoothly DNL has to maintain appropriate level of CAs. Here level of CAs means gross working capital level. The gross WC is the size of investment in CAs, i.e. cash, receivable and inventory. Success and failure of any business firm depends upon proper management of available resources and this best utilization. So, each of the components of CAs should be managed efficiently and effectively.

The high level of CAs indicates the higher level of liquidity. Among the components of CAs except cash, receivable and inventories have to wait for conversion into cash that means there is time lag between convert these two CAs into cash, so, this is less liquid than cash. Cash is hundred percent liquid assets and it has zero conversion periods. High ratio of cash to CAs indicate more liquidity position of CAs but it is also on indication of poor management of cash because to remain retain of cash reserve involves an opportunity cost of holding cash. Similarly, higher ratio of inventories indicates ineffective management of inventory and involves holding cost and higher ratio of receivables indicates the liberal credit policy of company. For

analyzing the position of CAs and its composition should be seriously examine separately i.e. position of Cash, receivables and inventories to total CAs.

Table: 4.6

Ratio of Cash, Receivable and Inventory to CAs

(In percentage)

Year	Ratio of Cash to CAs	Ratio of Receivable to CAs	Ratio of Inventory to CAs
2008/09	0.027	0.26	0.48
2009/10	0.022	0.37	0.50
2010/11	0.029	0.10	0.62
2011/12	0.014	0.16	0.62
2012/13	0.086	0.24	0.49
Average	0.04	0.23	0.54

(Sources: Annex 5)

Grouping of Cash to CAs

Group	Ratio	No. of Year
A	Lower than 4%	4 (2008/09 to 2011/12)
B	More than 4%	1 (2012/13)

Grouping of Receivable to CAs

Group	Ratio	No. of Year
A	Lower than 23%	2 (2010/11 and 2011/12)
B	More than 23%	3 (2008/09, 2009/10 and 2012/13)

Grouping of Inventory to CAs

Group	Ratio	No. of Year
A	Lower than 54%	3 (2008/09, 2009/10 and 2012/13)
B	More than 54%	2 (2010/11 & 2011/12)

4.4.1.1 Ratio of Cash and bank Balance to CAs (CCA)

The ratio states, what percentage of CA is in the form of Cash. By examine the ratio of cash and bank balance to CAs the researcher has found wide variation of DNL. The higher ratio indicates the higher investment in cash which means the higher level of idle fund remains in the company that increase the opportunity cost and decreases the profitability of the company. On the other hand, lower level of cash and bank balance means losing the opportunity and unable to meet current obligations on time, which

moves the firm towards bankruptcy. Here, this ratio analyzing by one ways i.e. the DNL wise yearly ratio of cash to CAs.

i. Yearly Ratio of Cash to CAs

The table 4.6 shows that the yearly ratio of Cash to CAs. The yearly average ratio was 4% during the study period. The yearly ratio was fluctuating during the study period. The highest ratio was 8.6% in the fiscal year 2012/13 and lowest ratio was 1.4 % in the fiscal year 2011/12.

4.4.1.2 Ratio of Receivable to CAs (RCA)

The ratio shows that the management of receivables has been an important bearing on the performance of the company. Higher receivable to CAs ratio indicated the liberal credit policy of DNL. The RCA was varied widely during the study period. It varied ratios were 26, 37 10, 16 and 24% in the fiscal year 2008/09 to 2012/13.

i. Yearly ratio of Receivable to CAs.

The table 4.6 shows that the average ratio of RCA was 23% during the study period. There were fluctuations in the ratio of RCA in the fiscal year 2008/09 to 2012/13. The ratio of RCA was very low in the fiscal year 2010/11 and the highest ratio was 37% in the fiscal year 2009/10. The yearly ratio during the study period was increasing trend, this indicates the efficiency in management of receivable was improving trend. Fiscal year 2008/09, 2009/10 and 2012/13 has been higher ratio than the average ratio and in the fiscal year 2010/11 to 2011/12 the ratio was lower than the average ratio.

4.4.1.3 Ratio of Inventory to CAs (ICA)

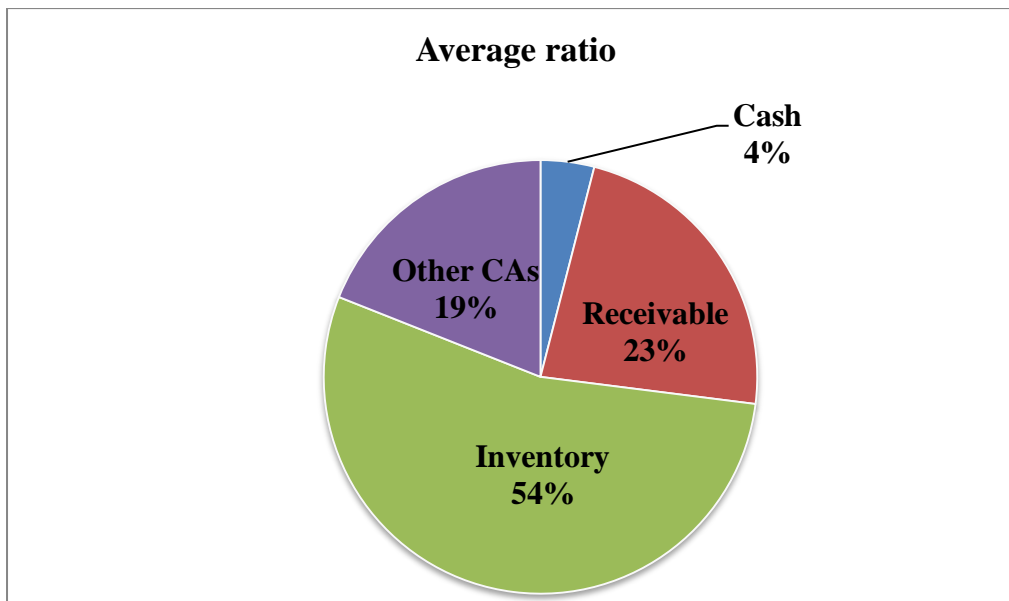
This ratio shows what percentage of CAs is in the form of inventories. The increase in the ratio is an indication of liberal inventory policy, followed by the company. Higher percentage on inventory to CAs means higher level of inventory holdings by the company. Higher percentage of inventory holding causes higher holding cost of inventory, lower than profitability and lower inventories turnover. It was poor inventory management. The inventory to CAs ratio was varied of DNL during the study of period. The highest ratio was 62% in the fiscal year 2010/11 & 2011/12 and the lowest ratio was 48% in the fiscal year 2008/09. The brief explain by focusing yearly ratio is described below.

i. Yearly Ratio of Inventory to CAs

It seems the yearly ratios of inventory to CAs were varied during the study period. The average ratio of inventory to CAs was 54% of DNL. The higher ratio of inventory to CAs is 62% in the fiscal year 2010/11 & 2011/12 and lower ratio than the average ratio of inventory to CAs in the fiscal year 2008/09, 2009/10 and 2012/13. The Composition of CAs by pie chart.

Figure: 4.6

Composition of Current Assets



4.4.2 Ratio of Current Assets to Total Assets (CATA)

This ratio indicates what percentage of the company total assets is current. Higher the level of CAs indicates good liquidity position of the company but at the same time it reversely effect on the profitability of the company. As the CATA increase, the firm profitability and risk would decrease. The requirement of CAs depends upon the nature of business. Here CAs means the assets to fulfill the need of daily business requirement and these is converted into cash within a year. Total assets mean the sum total of fixed assets and current assets used by firm. The calculated CATA of DNL is given below.

Table: 4.7

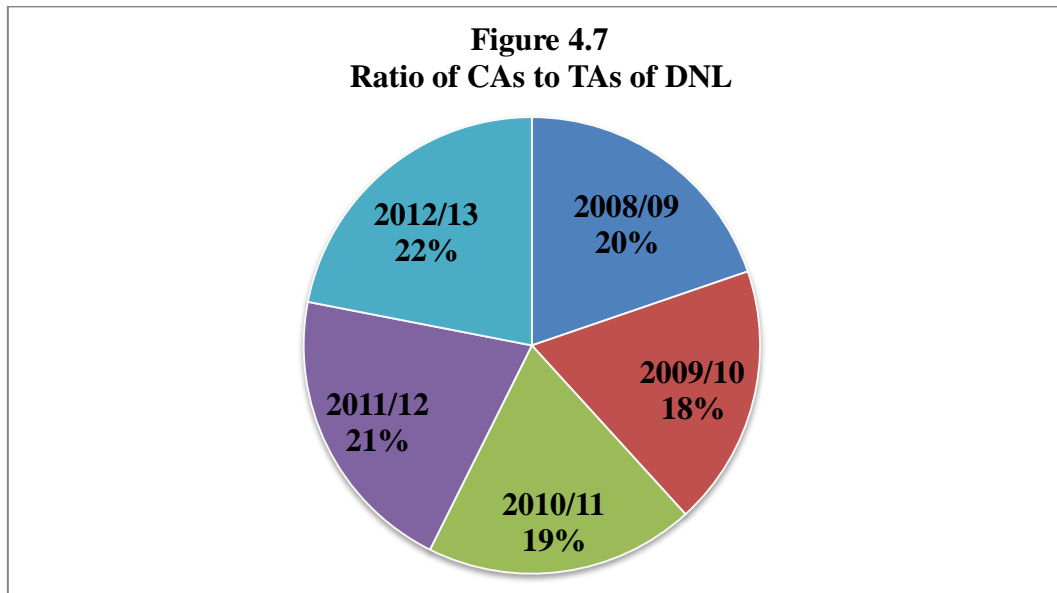
Ratio of CAs to Total Assets of DNL

Year	Current assets	Total Assets	Ratio (%)
2008/09	1,282.43	2,025.44	0.63
2009/10	1,102.9	1,858.15	0.59
2010/11	1,093.9	1,801.1	0.61
2011/12	1,623.36	2,459.08	0.66
2012/13	1,938.76	2,780.19	0.70
Average	1,408.27	2,184.79	0.64

(Sources: Annex 1, 3)

The table 4.7 shows that the yearly wise average ratio of CAs to Total assets of DNL. The average ratio is 64% which shows that average 64% of the DNL total assets is current. The higher ratio was 70% in the fiscal year 2012/13 and lower ratio was 59%

in the fiscal year 2009/10. But all ratios are closely with in the average ratio during the study period. The Pie chart composition of TAs is given below.



4.5 Analysis of Turnover Position

The relationship between sales and current assets are indicated by turnover by turnover ratios. These ratios reflect how effectively the company is managing its resources. Thus, these ratios measure the degree of effectiveness in use of resources or funds by a firm. In other words, turnover ratios are used to measure the actively within a firm. The behavior of assets utilization and improvement can be analyzed with the help of turnover ratio. Though, there is no standard ratio of ideal management, generally a greater turnover is regarded as efficient utilization of the asset. Here, for the purpose of analyzing.

Assets utilization of DNL, the researcher has to use only three type of turnover ratio, these are current assets turnover ratio, total asset turnover ratio and net working capital turnover ratio. Out of these, the NWC turnover ratio has already been described in section 4.3.1, so, here other two turnover ratio.

4.5.1 Current Assets Turnover Ratio (CATR)

The ratio indicates the turnover of times the current assets are turned over during the fiscal year. It shows the efficiency of utilizing CAs. The ratio shows the requirement of WC for one rupee of sales. It is a relationship between sales and CAs. An increase in the ratio shows improvement in CAs utilization. Higher the turnover of CAs is always desirable as it indicates the maximum utilization of CAs during the fiscal year. A low CAs turnover may reflect an inadequacy of net WC, as a result of low turnover of inventory or receivable. The CAs turnover ratio of DNL has been presented as follow.

Table: 4.8

CAs Turnover Ratio of DNL in Nepal

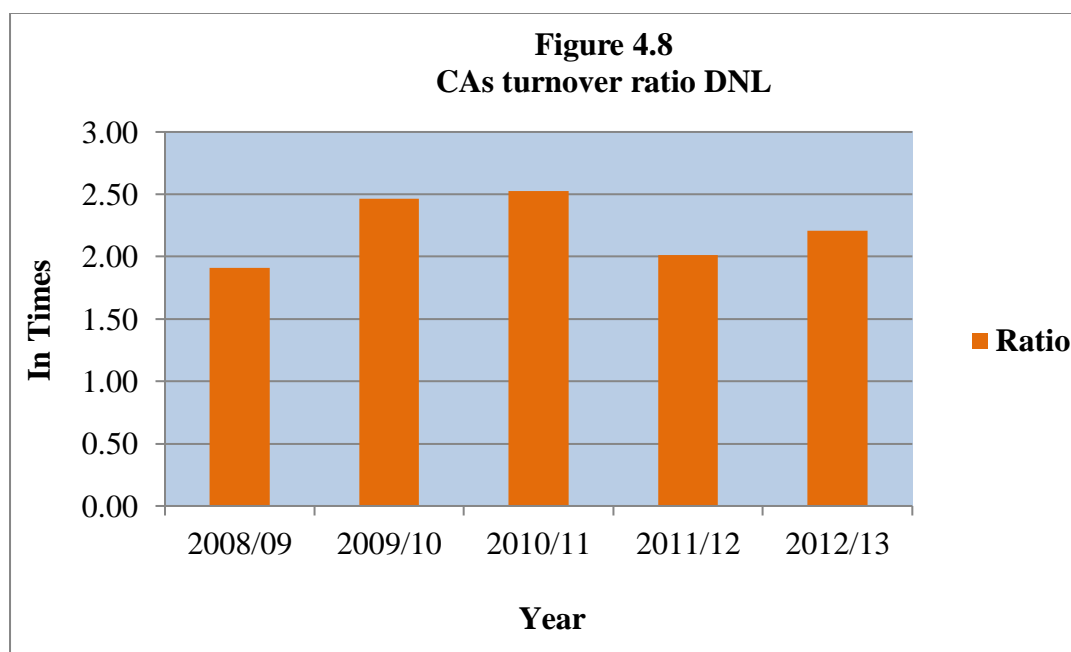
(In Times)

Year	Sales	Current Assets	Ratio
2008/09	2,447.50	1,282.43	1.91
2009/10	2,719.95	1,102.90	2.47
2010/11	2,765.20	1,093.90	2.53
2011/12	3,269.17	1,623.36	2.01
2012/13	4,283.88	1,938.76	2.21
Average	3,097.14	1,408.27	2.23

(Sources: Annex 1, 3)

The table 4.8 shows that the average ratio of CATR is 2.23 times during the study period. The CATR was widely fluctuating of manufacturing company in the fiscal year 2008/09 to 2012/13. The highest ratio was 2.53 times in the fiscal year 2010/11 and lowest ratio was 1.91 times in the fiscal year 2008/09. The yearly average ratio is also varied during the study period. The yearly CAs turnover ratio of fiscal year 2009/10 & 2010/11 above than the average ratio and the fiscal year 2008/09, 2011/12 and 2012/13, it was below than the average.

The graphic presentation of CATR is given below.



4.5.2 Total Assets Turnover Ratio

The ratio indicates the number of times total assets are found over during the fiscal year. Higher the ratio means better utilization of total assets and vice versa. It is the relationship between sales and total assets. The total assets turnover ratio is designed

to gauge whether the entire assets owned by a company are being used or if some are lying dormant. TATR of DNL is given below.

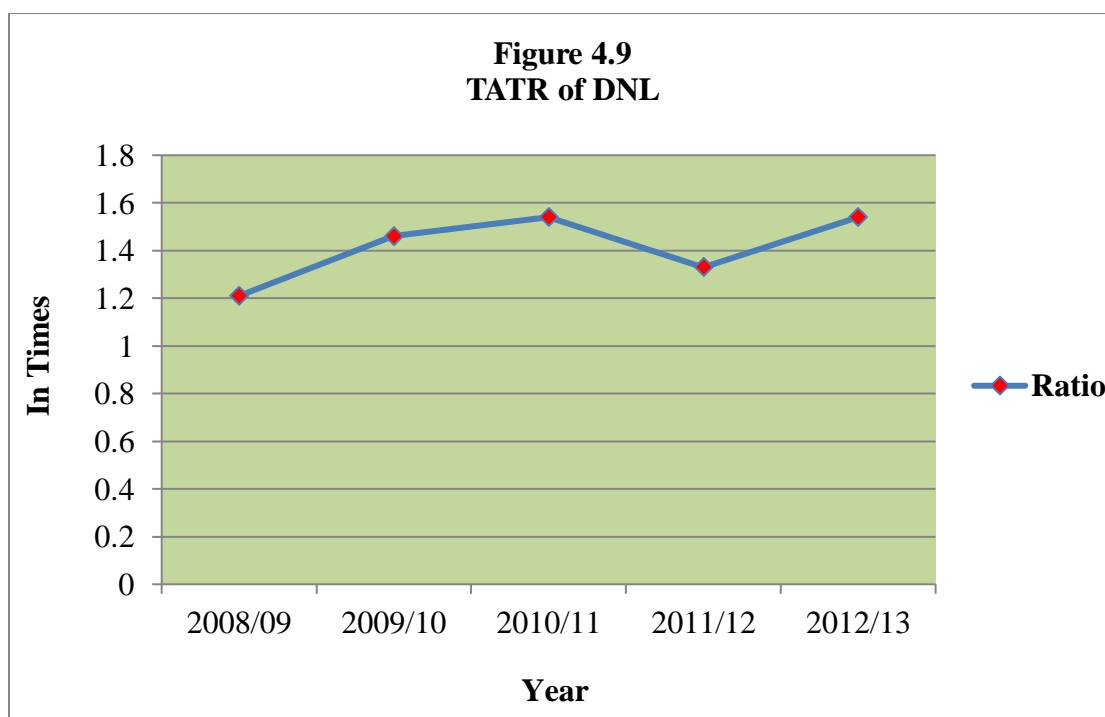
Table: 4.9
TATR of DNL

(In Times)

Year	Sales	Total Assets	Ratio
2008/09	2,447.50	2,025.44	1.21
2009/10	2,719.95	1,858.15	1.46
2010/11	2,765.20	1,801.1	1.54
2011/12	3,269.17	2,459.08	1.33
2012/13	4,283.88	2,780.19	1.54
Average	3,097.14	2,184.79	1.42

(Sources: Annex 3)

From the table 4.9, it shows that the yearly TATR of DNL during the fiscal year. The average ratio of DNL was 1.42 times. The highest ratio of TATR was 1.54 times in the fiscal year 2010/11 and 2012/13, 1.46 times in the fiscal year 2009/10, which indicates that these company. Use these total assets effectively or better utilization of assets. The ratio of fiscal year 2008/09 and 2011/12 were lower than average ratio. The yearly total assets turnover ratio seems to be a decreasing or increasing trend. Which indicates that DNL has been improved these total assets utilization fiscal year by fiscal year. The trend of TATR during the study period is given by graphic method.



4.6 Analysis of Profitability Position

The profitability position of a firm can be measured by its profitability ratio. The relation of the return of the firm to either its sales or its assets is known as profitability ratio. It shows the overall efficiency of the business concern. Profitability is an excellent indicator of a firm's financial health. Profitability ratio are useful both for historical comparison of firm's own ratios in order to increase trends of firm and for cross-sectional comparisons of firm's competitors in order to find strengths. For our analysis profitability can be measured with the help of the ratio, such as, profit margin, return on total assets and return on WC and the analysis of net profit position of DNL. The analysis of net profit and net WC are already discussed in section 4.2 respectively. So, here remaining one profitability ratio is analysis, which is given below.

4.6.1 Net Profit (Loss) Margin Ratio

It established the relationship between net profit and sales. Higher the ratio is an indication of the higher efficiency of Business Company and better utilization of total resources. Poor financial planning and low efficiency is the indication of lower ratio. If the ratio is only low in the fiscal year 2009/10 seems to be poor management and the management of firm tried to improve, which means the firm should raise its sales price per unit, cut its expenses or both. This ratio also indicates the cost effectiveness of the operation. The calculated net profit margin ratio of Dabur Nepal Private Limited is given below.

Table: 4.10

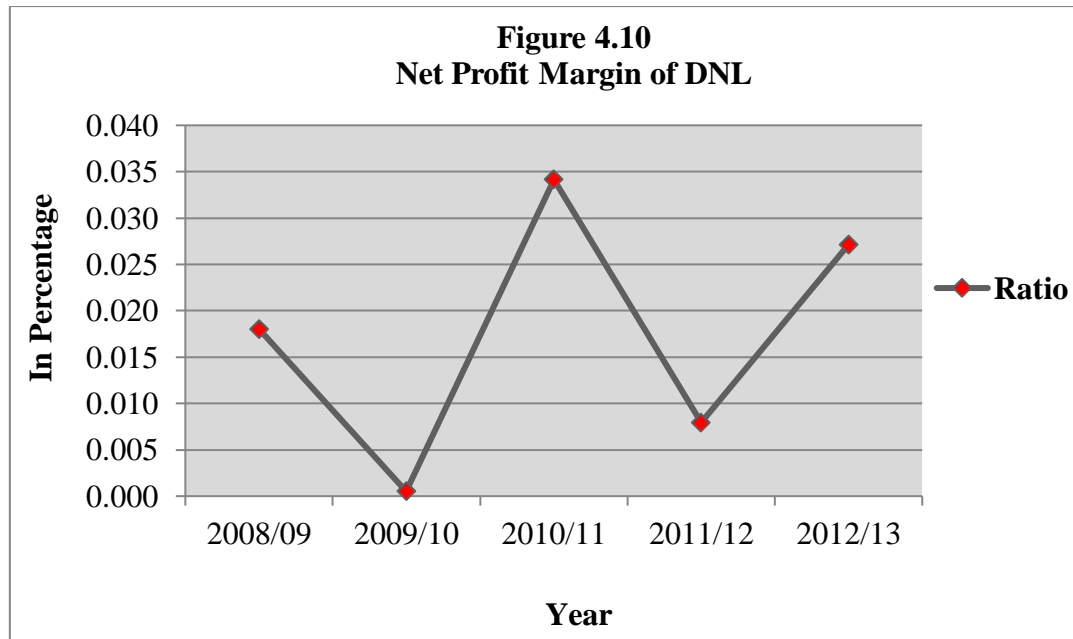
Ratio of Net Profit to Sales of DNL

Year	Net Income	Sales	Ratio (%)
2008/09	44.08	2,447.50	0.018
2009/10	1.40	2,719.95	0.001
2010/11	94.40	2,765.20	0.034
2011/12	25.92	3,269.17	0.008
2012/13	116.19	4,283.88	0.027
Average	56.40	3,097.14	0.018

(Source: Annex 2, 3)

The above shows table the ratio of net profit to sales. The ratio varied widely during the study period. Almost of the ratio was found to be Positive. Which indicates the company is in profit position. The highest profit ratio is 3.4% in the fiscal year 2010/11 than the average net profit margin of DNL. The average shows the yearly average ratio of net profit to sales was 1.8% during the fiscal year. The yearly wise profitability of DNL shows that this wasn't good satisfaction profit. The profit of the DNL wasn't satisfactory. If he tried to improve his management and control his costs,

he would success to earn good positive profit in the coming fiscal year. The table shows that DNL were not good Profit. Not so much. By few effects to effective to effective management he would be able to earn positive profit because his losses seem to be caused by higher cost of producing, poor WC management and defective sales policy and credit policy. So, that it seems to be earned good profit margin in business times of the world market and good effective management, satisfaction sales policy, good market price of product goods in business market in Nepal.



4.6.2 Return on Total assets (ROA)

It measures the return on investment or total assets. A more general ratio used in the analysis of Profitability is the ROA ratio or one of the more useful profitability ratios is the ROA, which is useful in measuring the profitability of the firm. The lowest ratio indicates that the firm has too many assets, high debt level, low earning and some others. It helps to estimate the assets utilization rate of company. The return of total assets has been presented below in table: 4.11.

Table: 4.11

Net profit to Total Assets of DNL

Year	Net Income	Total Assets	Ratio (%)
2008/09	44.08	2,025.44	0.022
2009/10	1.40	1,858.15	0.001
2010/11	94.40	1,801.10	0.052
2011/12	25.92	2,459.08	0.011
2012/13	116.19	2,780.19	0.042
Average	56.398	2,184.79	0.025

(Sources: Annex 2, 3)

The above table shows the ratio of net profit to total assets. This ratio varied widely of DNL. During the fiscal year of company were the positions of profit. This ratio varied from positive of DNL during the study period. The ratio was decreasing/increase trend because of decreasing in net profit and increasing in investment in assets of company due to downfall economic of DNL.

The average ratio shows that the net profit to total assets was 2.5% during the fiscal year. Dabur Nepal Private Limited has positive ratio of net profit to total assets in the fiscal year. Though positive ratio was not good satisfactory and more ratios were 5.2% in the fiscal year 2010/11 and 4.2% in the fiscal year 2012/13 than the average ratio. The minimum ratio was 0.01% in the fiscal year 2009/10 and the maximum ratio was 5.2% in the fiscal year 2010/11.

4.7 Analysis of Net Working Capital Position

The brief discussion about WC was already done in chapter two and table 4.2. Here, the position of NWC of DNL is to analyze. The net WC of a firm is a difference between these total CAs and CLs in the fiscal year. The net WC indicates a margin of safety to the creditors. It also measures the level of CAs and CLs because liquidity position is closely related with the net WC. Higher the net WC indicates the higher level of CAs and lower level of CLs and vice versa. Higher level of NWC is supposed to better but too much NWC indicates the difference between CAs and CLs which is not appropriate liquidity management. So, however, it is a very problem to maintain the appropriate liquidity of DNL as it indicates risk return tradeoff with higher or lower liquidity level. The positive NWC indicates the higher level of CAs than CLs and negative NWC indicates the higher level of CLs than CAs and the negative NWC shows the parts of the fixed assets also inventing form the short term funds.

4.8 Cash Conversion Cycle (CCC)

Cash conversion cycle refers to the length of time required to convert raw materials into finished goods and then to sell these goods. It is the length of time from the payment for the purchase of raw material to the collection of account receivable generated by the sales of the final product. In other words it measures the length of time that the firm's funds tied up in WC. CCC is one of the helpful ways to look all the cash flow for the firm. Once the purchase of the raw materials is made, the inventory conversion period determines the average number of days it takes to purchase and sells the product. The average collection period determines the average number of days it makes to collect credit sales. Here, the means the difference between operating cycle and payable deferral period, where operating cycle measures the total number of days from purchase to when cash is received. Because the raw materials typically aren't paid for immediately, I must also determine how long the firm defers its payment. The firm's goal should be to shorten its CCC as much as possible without hurting operations. This would improve profit, because the shorter

the CCC, the smaller the need for external financing and thus the lower the cost of such financing.

To analyze the CCC first of all inventory conversion period, receivable conversion period and payable deferral period must be calculated. Then after it is easy to calculate CCC because CCC means the sum of ICP and RCP minus PDP or (CCC = ICP + RCP – PDP). Here, because of the lack of necessary information, data and researcher has used yearly average as the standard for comparison or analysis.

4.8.1 Inventory Conversion Period (ICP)

It is the length of time that is required to turnover raw materials into finished goods and then to sell these goods. ICP is calculates the efficiency of the firm in selling its product. ICP is calculated by dividing number of days in a year by inventory turnover, where inventory turnover means how rapidly the inventory is turning into receivable through sales and it is calculated by dividing sales of the year by inventory level. The ICP shows how rapidly the inventory is turning into receivable through sales. Higher the ICP indicates that it takes long time to convert the inventory into receivable. It also indicates that the company has poor inventory management system. Lower ICP is the indication of good inventory management because it minimizes the carrying cost associated with inventory keeping as well as the possibility of less due to damage, stolen, obsolesces and so, on. Higher level of inventory tie-up founds, reduce profit and increase cost. So, optimum balance level should be maintained. The calculated ICP of DNL is given below.

Table: 4.12

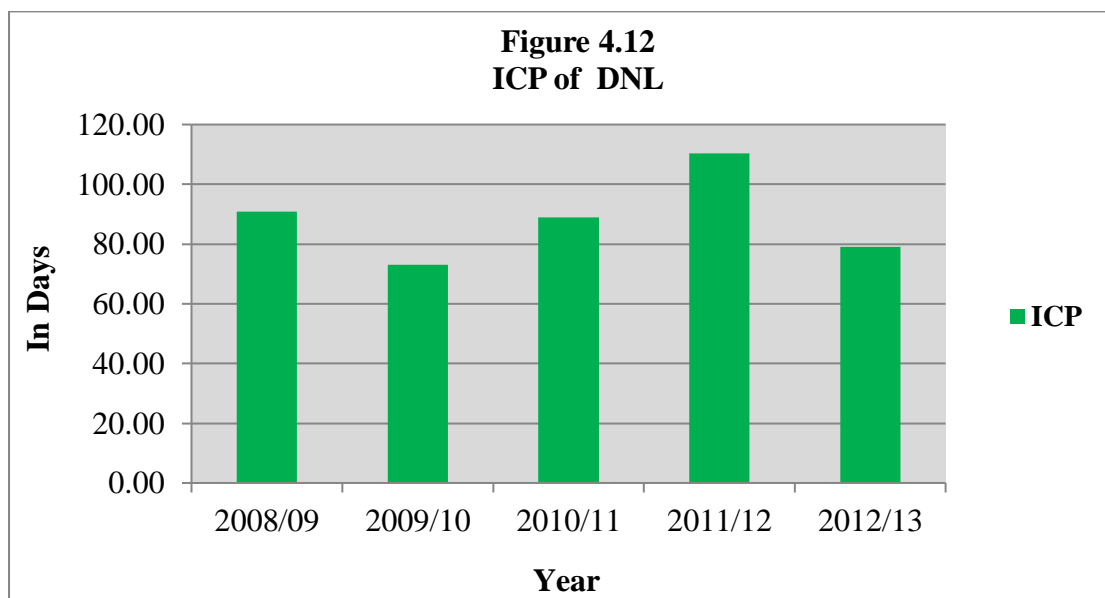
Inventory Conversion Period of DNL

Year	Inventory	Sales	ICP (In Days)
2008/09	617.44	2,447.50	90.82
2009/10	551.70	2,719.95	73.02
2010/11	683.00	2,765.20	88.92
2011/12	1,001.50	3,269.17	110.28
2012/13	941.40	4,283.88	79.11
Average	759.01	3,097.14	88.43

(Source: Annex 6)

The above table shows that the ICP of DNL during the study period 2008/09 to 2012/13. The ICP varied widely of DNL. The ICP table shows that ICP was the highest in the fiscal year 2011/12 (i.e. 110 Days) and lowest in the fiscal year 2009/10 (i.e. 73Days). The trend of ICP was fluctuating during the study period from 2008/09 to 2012/13. It seems that among the DNL has been satisfactory investment management system.

From the table 4.12, the average ICP is 88 days during the fiscal year. The higher ICP were 91 days in the fiscal year 2008/09, 89 days in the fiscal year 2010/11 and 110 days in the fiscal year 2011/12 than the average ICP. The lower ICP were 73 days in the fiscal year 2009/10 & 79 days in the fiscal year 2012/13. The trend of ICP during the study period is given by graphic method.



4.8.2 Receivable Conversion Period (RCP)

RCP is the length of time required to convert the firm's receivable into cash that is to collect cash following a sales. It is also called the days sales outstanding (DSO). It is also an important financial tool for measurement of cash conversion cycle. Generally the longer collection period indicates the inefficient management or liberal credit policy. Creation of receivable amounts more in the manufacturing company as compared to non-manufacturing company. Receivable collection period is calculated by dividing the receivable amount by sales per day. The RCP of DNL is given below.

Table: 4.13

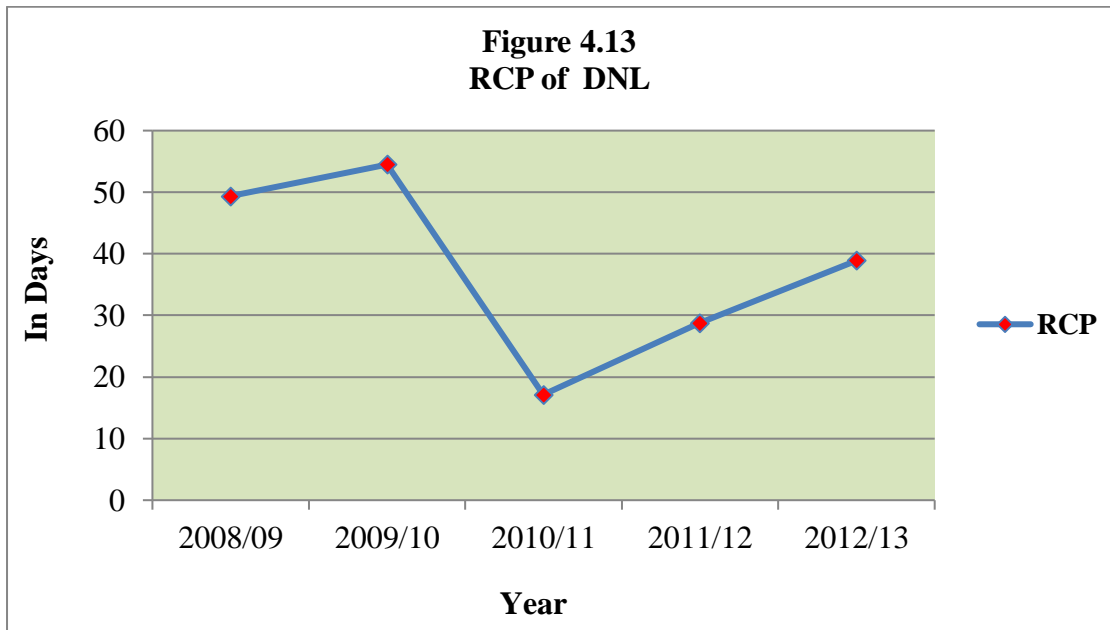
RCP of DNL

Year	Receivable	Sales	RCP (In Days)
2008/09	335.35	2,447.50	49.33
2009/10	411.60	2,719.95	54.48
2010/11	131.60	2,765.20	17.13
2011/12	261.17	3,269.17	28.76
2012/13	462.93	4,283.88	38.90
Average	320.53	3,097.14	37.72

(Source: Annex 7)

The above table shows the RCP of DNL during the study period from 2008/09 to 2012/13. It varied widely of DNL. DNL has followed his own credit policy, so, he has

different RCP and varied among him. The highest RCP was 54 days in the fiscal year 2009/10 and the lowest RCP was 17 days in the fiscal year 2010/11. The average RCP is 38 days during the study period. In the fiscal year 2008/09, 2009/10 and 2012/13 the RCP were higher than the average RCP and in the fiscal year 2010/11 & 2011/12, RCP were lower than the average RCP. The trend of RCP is fluctuating but around the yearly during the study period by graphic method.



The RCP measures the quality of debtors since it indicates the speed of this collection. The shorter the collection period, the better the quality of debtor, lower the carrying or collecting expenses. The long RCP implies a very liberal and inefficient credit policy and poor performance of credit management. Delay the collection of receivable higher the chances of bad debts, but in other hand the low collection period is also unfavorable which reduces the value of sales because it indicates a very tight credit and collection policy. By the fear of bad debts the company chooses only to those customers for credit transaction whose financial condition is good and whose goodwill is high in the market.

4.8.3 Payable Deferral Period (PDP)

It is the length of time between purchase of raw materials, labour and the payment of cash for him. It is also called payable conversion period (PCP). By lengthening the PCP, CCC can be shortened. It indicates the speed of credit payable. A high/long PDP is favorable for the company but too much long period hampers the credit worthiness of the company. Lower PDP indicates the firm's credit payment capacity and it increases credit worthiness of the company. The PDP will increase due to the delay in payment of the obligation. Any organization should try to maintain optimal payable policy because wrong decision of payment system reduces the profitability and leads to bankruptcy. The PDP is calculated by dividing payable by day per credit purchase but here, the lack of actual information of credit purchase. So, here for this study,

PDP is calculated by dividing actual payable by cost of goods sold and multiplied by number of days in a year. The table shows the PDP of Dabur Nepal Private Company during the study period.

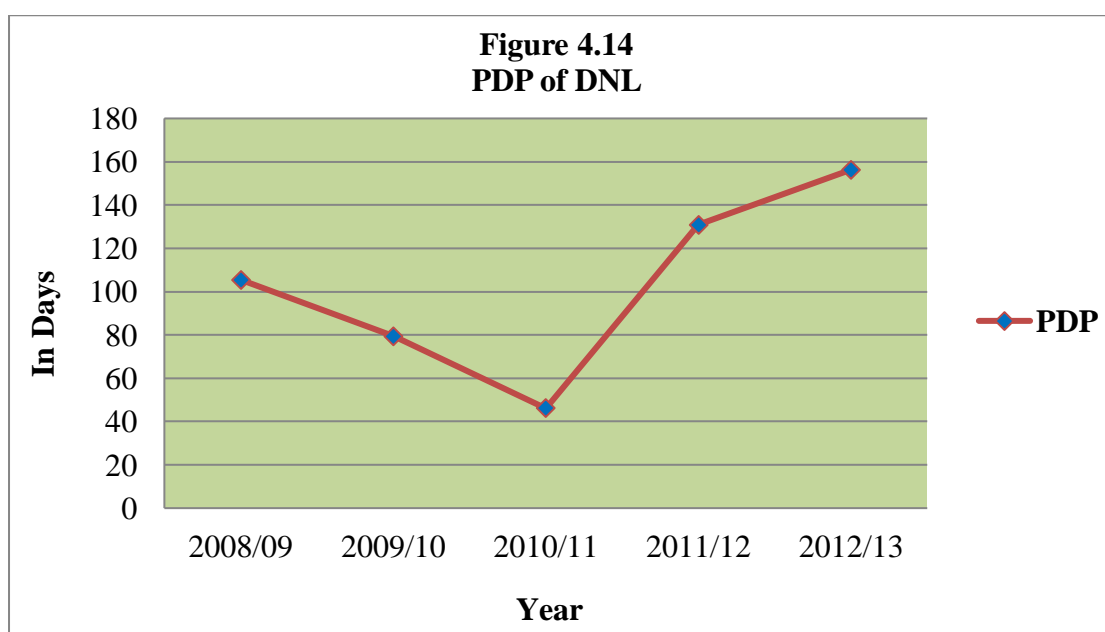
Table: 4.14

PDP of DNL

Year	Payable	Cost of goods sold	PDP (In Days)
2008/09	553.95	1,892.17	105.39
2009/10	477.04	2,162.86	79.40
2010/11	274.05	2,141.30	46.07
2011/12	837.36	2,302.70	130.91
2012/13	1,340.84	3,088.37	156.30
Average	696.65	2,317.48	103.62

(Source: Annex 8)

The above table shows the PDP of DNL during the study period from 2008/09 to 2012/13. The average of the PDP is 104 days in the fiscal year. The PDP was varied among of company. The longest period of PDP was 156 days in the fiscal year 2012/13 and shortest period was 46 days in the fiscal year 2010/11. The table shows that the PDP of selected manufacturing company was varied fluctuating trend. In the fiscal year 2008/09, 2011/12 and 2012/13 the PDP were higher than the average PDP and others fiscal year (2009/10, and 2010/11) were less than the average PDP. Any firm's might have an average 30 days to payable for its payable. Higher PDP indicates that the firms take large time to pay its obligation. Here, average PDP 104 days which is more than appropriate one month. So, the PDP of DNL seems to be not too much satisfactory.



4.8.4 Analysis of Cash Conversion Cycle

CCC shows that how much time does it takes to convert the inventory into finished goods, receivable into cash and to repay its obligations generated by the purchase of materials. The detail discussion about CCC has already been done in section 4.8. So, here the researcher is going to analyze the CCC of DNL. The calculated CCC of Dabur Nepal Private Limited is given below.

Table: 4.15

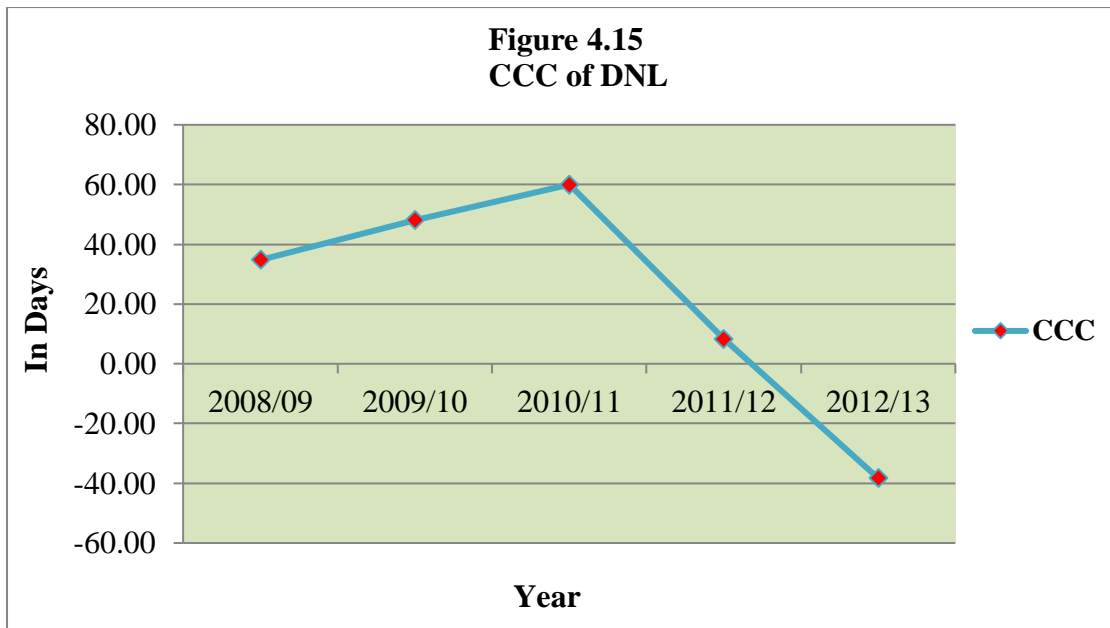
Cash Conversion Cycle of DNL in Nepal

(In days)

Year	ICP	RCP	PDP	CCC
2008/09	90.82	49.33	105.39	34.76
2009/10	73.02	54.48	79.4	48.10
2010/11	88.92	17.13	46.07	59.98
2011/12	110.28	28.76	130.91	8.13
2012/13	79.11	38.9	156.3	-38.29
Average	88.43	37.72	103.61	22.54

(Source: Annex 9)

The above table shows the CCC of DNL. The average CCC is 23 days which presented the CCC of Dabur Nepal Private Limited. The CCC is short but unsatisfactory for manufacturing sector. It is less than one month. Short CCC affects the Firm liquidity position. The CCC of DNL seems to be varied widely. The highest CCC was 60 days in the fiscal year 2010/11 and lowest CCC was negative 38 days in the fiscal year 2012/13. The company has lower CCC due to maximum delay in paying debt and quick collection of receivable. Longer CCC is harmful for the company. Longer CCC means, even the strong liquidity position of a firm, firm could not pay its obligation in time and need to take addition loan to operate daily transaction. The table shows negative CCC was 38 days in the fiscal year 2012/13 which was not good for the company. It off-set the credit worthiness of the firm's because negative CCC means day in payment of obligation. The short CCC is favorable for DNL, so, the CCC must be reducing if possible. It can be shortened by reducing ICP by processing and selling goods more quickly by reducing RCP by speeding up collection and by lengthening PDP by slowing down the firm own payment. The RCP and PDP of DNL are better but average ICP is little long i.e. 88 days. Because of the ICP, CCC of DNL was short i.e. is 23 days. To reduce the CCC of DNL must reduce its ICP by processing and selling goods more quickly. The trend of CCC is fluctuating but around the yearly during the study period by graphic method.



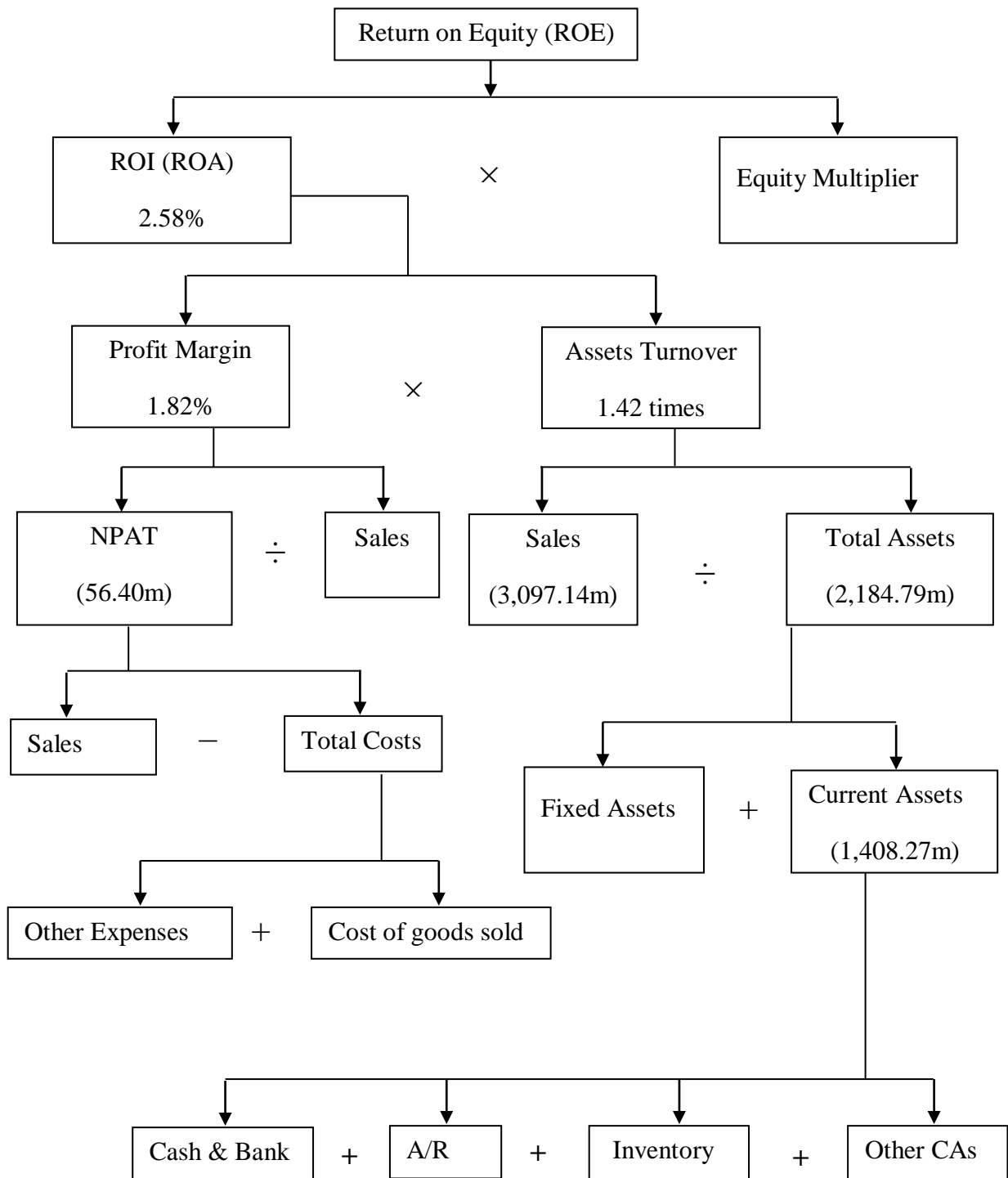
4.9 Financial Analysis of Du-Pont System

Du-Pont System is a comprehensive model to represent integrated view on financial analysis of a firm. Du-Pont system of financial analysis was first propounded and used by Du-Pont Corporation U.S.A. The Du-Pont system of financial statement analysis is developed by the financial experts of the Du-Pont company by putting together the effects of profitability, investment and the liquidity ratios. The Du-Pont system reveals the manner in which activity ratios and profit margins on sales interact to determine the profitability of assets. According to Du-Pont system change in any variable either in assets or in total cost items have a direct impact a return on equity. Profit and return on investment depends upon control of cost and investment. If cost are high profit margin on sales fall. If investment is not control or high, turnover of assets also declines. So that tool used to show the relationship between return on equity (ROE), assets turnover and turnover and profit margin.

The Du-Pont chart given below, which defined, ROE is a product of return on assets (ROI) and equity multiplier and total assets turnover. The right side of the chart shows the turnover ratios and left side of the Du-Pont chart shows the profit margin on sales.

Chart: 4.1

Analysis of Du-Pont System of DNL



The chart shows' the turnover position of DNL was 1.42 times which is calculate by calculated by average sales divided by total assets. The profit margin of 1.82% multiplied together turnover and profit margin has produced return on investment which is equal to 2.58%. The return in investment shows the good financial performance of Nepalese manufacturing company. The profit margin and average profitability of Nepalese manufacturing industry seems to be positive. DNL has positive profit which leads to average profitability of Company. Main focus of this study is on WC management, so the researcher is considering the effect of level of

CAs. In this study the researcher wants to see the effects of increase in level of CAs, to average profitability, by keeping other things constant. To analyze the effect on CAs to profitability first the growth rate of CAs of Nepalese manufacturing sectors has to be calculated.

Here, the average level of CAs for 2008/09 = Rs.1,282.43m.

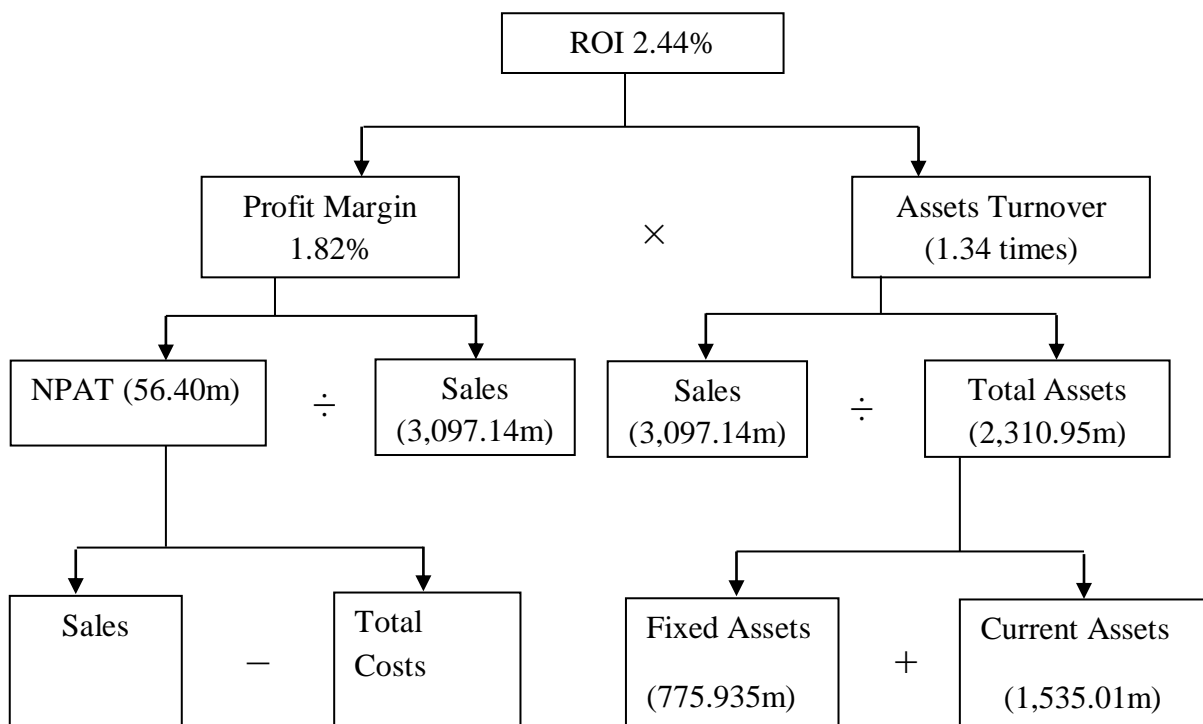
The average level of CAs for 2012/13 = Rs. 1,938.76m.

$$\text{Growth rate}(g) = \left[\frac{\text{Last yr CAs}}{\text{Begin yr CAs}} \right]^{1/n}$$

$$g = \left[\frac{1,938.76\text{m}}{1,282.43\text{m}} \right]^{1/5} - 1 = 8.62\% \text{ or } 9\% \text{ (Aproximate)}$$

Now, the level of CAs after increase equal to average CAs (1,408.27m) \times 1.09 = Rs.1,535.01 Million.

Chart 4.2



(Du- Pont chart after increase in the level of CAs by 9%)

The above chart the position of ROI after increase in CAs level. According to Du-Pont system, if there is increase in level of assets, the turnover will be decrease which means ROI also decrease but if the profit is positive additional increase in CAs increase the profit. Here the level of CAs has increase by 9%. This increase leads to the positive effect on ROI, which is reducing to 2.44% from 2.58% because the profit

is positive. Here when the CAs is increase by 9% the profit (loss) is reduced by 0.14% so, the DNL can reduce losses by higher level of CAs.

Above analysis of Du-Pont system (i.e. after change in assets level) shows that change in any variables of cost, assets and sales items has direct impact on ROI.

4.10 Analysis of the Relationship of WC variables

i. Relationship between CAs and CLs

To show the relation between CAs and CLs Karl's Person's correlation coefficient (r) is determine. For this it is assumed that CAs and CLs was interrelated variable. The calculation between CAs and CLs based on yearly was shown in annex 10.

By analyzing the correlation between CAs and CLs the researcher wants to determine whether there is relationship between them, i.e. if the level of CAs change there will change in CLs. The value of correlation (r) equal to 0.9824 shows that there was positive correlation between CAs and CL, which means increase in CAs brings increase in CLs and vice versa. The degree of reliability of computed correlation can be judge with the help of its probable error. Here the probable error was 0.0105. So, the value of r is higher than P.E. (i.e. $r > P.E.$). The relationship between CAs and CLs is significant.

(For detail calculation of above value, see annex 10.)

ii. Relationship between Receivables and Sales

The correlation coefficient between receivables and sales was 0.3122 which shows that there is positive correlation between sales and receivables. Increase in sales will increase in level of receivables and vice-versa. To test the statistical significance of the calculated value of correlation, probable error method is used. The value of probable error was 0.2722. Since, (i.e. $r > P.E.$) So, the relationship between receivable and sales is significant.

(For detail calculation of above value, see annex 11.)

iii. Relationship between Sales and Inventory

The value of correlation between sales and inventory was 0.7815 which shows that there is positive correlation between inventory and sales. Increasing sales will lead to increase in inventory level or vice- versa. The value of P.E. was 0.1174, which is smaller than the value of ' r ' ($r > P.E.$) shows that calculated value of ' r ' is significant which means, however, the variables are correlated, it is sure that if sales/inventory increases the level of inventory/sales also will increase or vice- versa.

(For detail calculation of above value, see annex 12.)

iv. Relationship between Net WC and Sales

To show the relationship between Net WC and sales, Person's correlation coefficient (r) method is used. The correlation value was negative 0.6695 means there was high degree of negative correlation between sales and Net WC, which shows that increase in Net WC/Sales level brings decrease in Sales /Net WC or vice-versa. The degree of reliability of computed correlation can be judged with the help of its probable error was 0.1662. The value of r is smaller than P.E. (i.e. $r < P.E.$) So, the relationship between Net WC and Sales is not significant.

(For detail calculation of above value, see annex 13.)

v. Relationship between Net WC and Net Profit

The calculated correlation coefficient value (r) of Net WC and Net Profit based on yearly average was 0.1577, which shows that there is positive relationship between these two variables. The value of probable error was 0.2941. Since $r < P.E.$, the value of 'r' is not significant. Though there was positive relationship between Net WC and Net Profit, It is not sure that if the volume of Net WC increase, than the net profit will also decrease or not. Increase in the level of Net WC may also cause to reduce in level of NPAT, because the relationship is not significant.

(For detail calculation value, see annex 14)

vi. Relationship between CAs and Sales

The correlation coefficient between current assets and sales was 0.9102 which shows that there was positive correlation between sales and current assets. Increase in sales will increase in level of CAs and vice-versa. To test the statistical significance of the calculated value of correlation, probable error method is used. The value of probable error was 0.0518. Since, ($r > P.E.$) So, the relationship between CAs and sales is significant.

(For detail calculation of above value, see annex 15.)

4.11 Major Findings

Based on the previous analysis, the following major findings are observed:

1. From the study of secondary data, level of CAs is analyzed at first. It is found put that level of current assets of Dabur Nepal Private Limited varied widely than the average level of CAs of five fiscal year period. The level of CAs has been increasing or decreasing trends and it shows that DNL has adopted aggressive assets management policy from fiscal year 2008/09 to 2010/11 but shifted towards conservative policy from fiscal year 2011/12 to 2012/13 and CLs has been increasing or decreasing trends of DNL has been following aggressive CLs manufacturing policy in the fiscal year 2008/09 to 2010/11 but

level of CLs in the fiscal year 2011/12 to 2012/13 was more than average level of CLs, it has been following conservative policy.

2. To find out the existing position of working capital management and his financial conditions of DNL various key ratios are calculated in previous chapter.

The ratio of cash to CAs states the percentage of CAs is in the form of cash. It varied widely among of company during the study period from fiscal year 2008/09 to 2012/13. The level of ratio indicates the holding of cash. DNL has the highest level of cash balance ratio was 8.6% in the fiscal year 2012/13 of CAs and minimum holding ratio was 1.4% in the fiscal year 2011/12. The ratio of receivable to CAs varied widely among of DNL during the study period. The analysis shows that DNL has the highest ratio of receivable to CAs was 37 % in the fiscal year 2009/10 and lowest ratio was 10 % in the year 2010/11. Similarly, the average ratio of inventory to CAs was 54% of DNL. The portion of inventory was higher as compared to cash and receivable in composition of current assets and then followed by receivable and cash respectively.

3. The percentage average ratio of CAs to total assets was 64% more than 50%. The high ratio was 59%, 66% & 70% in the fiscal year 2009/10, 2011/12 and 2012/13 of DNL but yearly average ratio of CAs to total assets was fluctuating trends during the study period. DNL has positive lower level of net working capital. The average level of net working capital of DNL is Rs. 389.25 million. The highest level of Net WC has Rs. 621.50 million at year 2010/11 and lowest level has Rs. 249.52 in the fiscal year 2011/12.
4. Liquidity position of DNL is not so, good. The yearly ratio varied widely among of manufacturing company but yearly ratio lies around average ratio. The assets utilization position of DNL is also measured with help of turnover ratio. Higher turnover was always desirable. Here, yearly average of CAs to turnover was 1.54 times and total turnover was only 1.42 times. So, the CAs utilization rate is better than total assets utilization rate of Dabur Nepal Private Limited.
5. The average percentage of net Profit margin is 1.8%. It means that DNL is suffering from profit or profit position. The positive net profit margin 1.8% indicates that there is profit of Rs. 0.018 per rupee of sales. The analysis of return on total assets and Net WC also shows that the DNL sectors are incurring profits. DNL has been incurring profits where as it has earned profit in the five fiscal year. (i.e.2008/09 to 2012/13)
6. The inventory conversion period of DNL was 88 days. I.e. yearly average value. The ICP was varied closely among of DNL. The highest ICP was 110 days in the fiscal year 2011/12 and lowest ICP was 73 days in the fiscal year 2009/10. The yearly average receivable conversion period of DNL was 38 days. Receivable conversion period of Nepalese manufacturing company was varied widely among him. The high level of RCP was 54 days in the fiscal year 2009/10 and low level of RCP was 17 days in the fiscal year 2010/11 of

DNL. The payable deferral period of Nepalese manufacturing company was only 104 days during the study period. The high PDP was 156 days in the fiscal year 2012/13 and low PDP was 46 days in the fiscal year 2010/11. The PDP of fiscal year 2008/09, 2011/12 & 2012/13 were more than the average PDP and two fiscal year was low. (i.e. 2009/10 and 2010/11)

7. The cash conversion cycle (CCC) of DNL was 23 days which seems to be shorter. The CCC was nearly in one month of company because of its own management system. The highest CCC was 2 month in the fiscal year 2010/11 and the lowest was 8 days in the fiscal year 2011/12 of Dabur Nepal Private Company.
8. Du-Pont system of financing analysis focuses (point out) that changes in any variable either in assets or in total cost items has direct on return on investment. The product of these two ratio shows that ROI of DNL was equal to 2.58%. Other variables remaining constant, the increase in level of assets i.e. CAs, level of total cost and level of sales affects the existing level of ROI. After increase in CAs of Nepalese manufacturing company by 9% leads positive effects on ROI i.e. ROI was decreased from 2.58% to 2.44% or after increase by CAs by 9% losses reduce by 0.14%. Only sales level can bring the positive impact on return on investment.
9. The correlation coefficient between CAs and CLs was 0.9824, receivable and sales was 0.3122, inventory and sales was 0.7815, net working capital and sales was negative 0.67, net profit and net working capital was 0.1577 and current assets and sales was 0.9102 were highly correlated to each other, that means there is positive relationship between these variables. This relation (i.e. correlation value 'r') is statistically significant because the value of 'r' is higher than the probable error. But correlation value of two sectors (i.e. net WC and sales & Net profit and net WC) is lower than the probable error.

Chapter-Five

Summary, Conclusion and Recommendation

5.1 Summary

Industrialization is considered essential for economic development of every country. As a developing country like Nepal, industrialization is the major instrument of progress, modernization and social development. The industrialization in Nepal started only after Second World War. Only few industries were established at that time but at present there are various industrial sectors, which are operating in Nepal. Manufacturing industry is one of the main income and employment generating sectors of Nepal but the role of Nepalese manufacturing companies in the national economy is not satisfactory. Though, the Government of Nepal has been emphasizing the development of industries in private sectors by providing financial and other facilities, but the trend of industrial development is very slow because of various problems related to financial and political situation.

The main objective of this study is to present and analyze WC management and its practice in Nepalese manufacturing companies. For day to day operation, appropriate amount of working capital is necessary. Lack of WC and its misuse disturb in daily operation. Working capital management which is concerned with short term financial decision appears to have been relatively neglected in the literature of finance. It is a kind of life blood of manufacturing companies. Study on WC management of Nepalese manufacturing companies is an exciting and challenging work because it is a operating nerve of manufacturing companies. Hence the success and failure of every company depends on working capital management. Manufacturing companies shouldn't have the excess WC because it is the sign of poor management and it affects the profitability as well as wealth maximization. Similarly, due to lack of WC, the day to day operation of business organization can not operate successfully. The inefficient management of working capital leads to loss of profit in the short run but it ultimately leads to the downfall of the companies in the long run.

The accelerating pace of the development of industries has created many managerial problems, one of which is management of WC. Due to the lack of basic knowledge of working capital management most of the manufacturing companies are suffering from huge loss. It is well accepted fact that, Nepal has abundant human and natural resources so, in a country like Nepal it is essential that WC utilization be improved.

The objectives of this study is to appraise the WC management of Dabur Nepal Company with respect to cash, Credit (receivable) and inventory and to find out its relation with sales and to analyze the liquidity composition of WC, assets utilization and profitability position. To accomplish these objectives, this study was concentrated with the various aspects and components of working capital management of Dabur

Nepal Private Limited. For this the study covered the period of five fiscal years from fiscal year 2008/09 to 2012/13 A.D. of Dabur Nepal Private Limited. The necessary data and information were collected from secondary process. The descriptive and analytical methods of research design were applied here to complete the research work. The secondary data were analyzed by using financial and statistical tools. Financial ratio, Du-Pont system and cash conversion cycle, correlation and regression as statistical methods were used as major tools for analysis.

5.2 Conclusion

Management of working capital plays vital role in the daily operation of a firm, thus manager should understand the importance of WC. It is necessary to understand about the factors affecting the WC needs, which help to have proper management of WC. Almost every manufacturing companies of Nepal are suffering from losses. Proper management plan and lack of forecasting capacity, negligence of administrative work, ineffective management system and lack of appropriate financial plan and unsuitable WC policy are the main causes of failure of the Nepalese mfg. companies. The investment in CAs and proportion of its components isn't so much satisfactory.

The management of DNL intensively should focus on working capital management. Most of the manufacturing companies are adopting conservative WC approach. The theory of high risk and high return is not applied here. The liquidity, profitability and turnover position are also satisfactory.

Dabur Nepal Private Limited has 23 days of cash conversion cycle. The Du-Pont system analysis also shows that the turnover is medium and the profit margin on sales is 2.58%. The statistical analyses (correlation coefficient) between the variable of working capital is positive as well as the coefficient result is statistically significant between the variables. DNL should follow or adopt corrective mechanism to change working capital management.

5.3 Recommendation

This recommendation is the output of the whole. It is imperative to provide some suggestive measure for improving the management of working capital.

1. The financial manager should have knowledge of the sources of working capital funds as well as investment opportunities where idle funds may be temporarily invested.
2. The wide variation in the CAs holding by DNL concludes that he should seriously examine his working capital policy. The CAs at all times should be sufficiently in excess of current liabilities to constitute a buffer for maturing obligations in ordinary operating cycle of a business.
3. DNL has followed the rule of financing policy. It has prepared financial plan and allocate of funds from which sources he got and where he think better to use as adopt basis. He should prepare WC plan and adopt appropriate working

capital policy. Medium levels of financing cost increase the average cost which reduces the profitability of company. So, it was better to determine its financing source from where it's got fund and it also needs to consider cost factors.

4. It was clearly shown that the turnover ratio of DNL is good. Total assets and CAs turnover was huge and net working capital turnover is positive. So, the assets utilization rate of DNL is good. Manufacturing company with good turnover of assets need lesser working capital as compared to lower turnover so, DNL should speed its CAs circulating round because speed of operating cycle leads to lesser need of working capital. So, to increase the turnover position of the company should increase his sales level and adopt appropriate CAs policy with respect to cash, inventory and receivable.
5. The working capital policy followed by DNL seems justifiable to his liquidity and profitability position. To solve this problem, require managing his assets effectively. Working capital forecasting, planning and management was crucial for the success of company.
6. The cash conversion cycle of Dabur Nepal Private Limited was short. The long ICP leads to long operating cycle. It is necessary to Nepalese manufacturing sectors to reduce of CCC. It can be shortened by reducing ICP by processing and selling goods more quickly, by reducing RCP by speeding up collection and by lengthening PDP by slowing down the company's own payment. But it should be understand that the credit worthiness of the company was improved by paying obligation in time because delay in the payment hampers the credit worthiness. By better utilization and efficient management of inventory and receivable the operating cycle was reduce in the fiscal year and it helps to improve average CCC.
7. Correlation coefficient between liquidity (Net WC) and profitability shows that there was positive relation between them. Generally, there should be positive correlation. There was significant relation between profitability and liquidity, determinants of correlation is smaller than the five times of probable error. So, the management should try to avoid such error and there should be establish proper relation between them. For the achievement such goal the company should be investment on CAs.
8. Nepalese manufacturing companies were suggested to set up management information system of working capital (MISWC). This MISWC may be a unit of the whole management information system (MIS) of company. This important unit wants the department and individual to be alert of every moment. MISWC will move in an appropriate operating cycle with efficient working capital management goal.
9. Further study can be conducted by increasing sample size, by increasing number of observation by using other statistical and financial tools.
10. Skilled and efficient manpower is the basic need for success of manufacturing company. He should increase the efficient of higher and lower level of

employee. So, skill development and management development program should be held. To increase the efficiency of financial manager, account officer, inventory controller, (store keeper) sales manager and others, it must give frequent training for them. Skilled manpower was one of the ways of reducing operating and other expenses the performance of company. They should use new technology to increase performance and reduce cost. Nepalese company should appoint their manpower on the basis of working capacity and their requirement but not from political background. There should be right man in right place. It is better to establish separate human resource department and to prepare human resource planning.

BIBLIOGRAPHY

Books:

- Hampton, John. J. (1998). *“Financial Decision Making”*, New Delhi: Prentice Hall of India Pvt. Ltd.
- Henderson, Glenn V. Gary. Jr, Trennepohl. L, Wert, Jame. E. *“An Introduction of Financial Management”*, New Delhi: Addison Westey Publishing Company.
- Jain, Permila. (1996). *“Financial Management”*, New Delhi: Pointer Publisher.
- Joshi, P.R (2001). *“Research Methodology”*, KTM: Buddha Academic Publisher and Distributors Pvt. Ltd.
- Kotheri, C.R *“Research Methodology (method and technique)”*, 2nd editions, New Dehli: Wishwa Prashan.
- Krishna, P. Gopala. (1996). *“Inventory and Working Capital Management (handbook)”*, New Dehli: Macmillan India Ltd.
- Kubr, Millan. (2002). *“Management consulting, (A guide to the profession)”*, 4th edition, Geneva: International Labour Office.
- Mathur, B. L. (1994). *“Financial Management”*, Jaipur India: Arihant Publishing House.
- Pandey, I.M. (1999). *“Financial Management”*, New Dehli: Vikas Publishing House Pvt. Ltd.
- Pant, P.R. (2003). *“Business Environment in Nepal”*, Kathmandu: Buddha Academic Publishers and distributors Pvt. Ltd.
- Paudel, R.B. Baral, K. J. Gautam, R.R., Dahal, G. B. and Rana, S.B. (2008). *“Fundamentals of Financial Management”*, KTM: Asmita Books Publishers & Distributors, Ltd.
- Pinches, G.E. (1990). *“Essential of Financial management”*, New York: Harper Conllins Publisher.
- Pradhan, R. S. (1986). *“Management of Working Capital”*, New Dehli: national Book Organization.
- Pradhan, R. S. (2004). *“Financial Management”*, KTM: Buddha Academic Publisher and Distributors.
- Pradhan, Surendra. (1992). *“Basic of Financial Management”*, KTM: Educational Enterprise Pvt. Ltd.
- Rabidra, B. (2010). *“Financial Indicators”*, KTM: Buddha Academic Publisher and distributors Pvt. Ltd.
- Rishi, R.G., Rajan B.P., Kesher J. B. and Surya B.R. (2010). *“Managerial Finance”*, KTM: Asmita Books Publisher and Distributors Pvt. Ltd.
- Van Horne, J.C. (2003). *“Financial Management and Policy”*, New Dehli: Prentice Hall India Pvt. Ltd.
- Weston, J. F. and Brigham, E. F. (1984). *“Managerial Finance”*, USA: The Dryden Press Florida.
- Weston, J.F. and Copeland, T.E. *“Managerial Finance”*, 1996, Florida USA: The Dryden Press.

Wolff, H.K. and Pant P.R. (1999). “*Social Science Research and Thesis Writing*”, KTM: Buddha Academic Enterprise Pvt. Ltd.

Unpublished master level thesis:

Amatya, P. (2007). “*A Comparative Study of Working Capital of Manufacturing Company with reference to two listed companies*”, an Unpublished master level Thesis, submitted to Shanker Dev Campus, Faculty of Management, T.U.

Joshi, Laxmi. (2007). “*A Study on Working Capital of Nepalese Manufacturing Companies*”, an Unpublished master level Thesis, submitted to Shanker Dev Campus, Faculty of Management, T.U.

Koirala, R. Nagendra (2011). “*Working capital Management Practice in Manufacturing Companies of Nepal*”, an Unpublished master level Thesis, submitted to Shanker Dev Campus, Faculty of Management, T.U.

Panday, B. (2013) “*Comparative Analysis of Working Capital Management of Chilime Hydropower and Butwal Power Company Limited*”, an Unpublished master level Thesis, submitted to Shanker Dev Campus, Faculty of Management, T.U.

Paudel, K. S. (2009). “*A study on Working Capital of Nepalese Manufacturing Companies*”, an Unpublished master level Thesis, submitted to Shanker Dev Campus, Faculty of Management, T.U.

Pyakurel, D.R. (2010). “*Working Capital Management of Nepal Life Insurance Compay Ltd*”, an Unpublished master level Thesis, submitted to Shanker Dev Campus, Faculty of Management, T.U.

Shrestha, K. (2012). “*Working Capital Management of selected Manufacturing Companies in Nepal*”, an Unpublished master level Thesis, submitted to Shanker Dev Campus, Faculty of Management, T.U.

Shrestha, S.K. (2010). “*Working Capital Management of Selected Manufacturing Companies*”, an Unpublished master level Thesis, submitted to Central Department, Faculty of Management, T.U.

Publications:

Dabur Nepal Private Limited, Annual Reports (2008/09 to 2012/13), Tinkune, Kathmandu, Nepal.

Website:

www.daburnepal.com

www.sharesanser.com

ANNEX NO. 1

Current Assets and Current liabilities of DNL

(Rs. in Millions)

Year	Current Assets	Current Liabilities
2008/09	1,282.43	837.28
2009/10	1,102.90	723.60
2010/11	1,093.90	472.40
2011/12	1,623.36	1,373.84
2012/13	1,938.76	1,687.97
Total	7,041.35	5,095.09
Average	1,408.27	1,019.02

ANNEX NO. 2

Net Profit and Net WC of DNL

(Rs. in Millions)

year	Net Profit	Net WC
2008/09	44.08	445.15
2009/10	1.40	379.30
2010/11	94.40	621.50
2011/12	25.92	249.52
2012/13	116.19	250.79
Total	281.99	1,946.26
Average	56.40	389.25

ANNEX NO. 3

Sales and Total Assets of DNL

(Rs. in Millions)

Year	Sales	Total Assets
2008/09	2,447.50	2,025.44
2009/10	2,719.95	1,858.15
2010/11	2,765.20	1,801.10
2011/12	3,269.17	2,459.08
2012/13	4,283.88	2,780.19
Total	15,485.7	10,923.96

Average	3,097.14	2,184.79
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ANNEX NO. 4

Cash, Receivables and Inventory of DNL

(Rs. in Millions)

Year	Cash	Receivables	Inventories
2008/09	34.57	335.35	617.44
2009/10	24.70	411.60	551.70
2010/11	31.30	113.60	683.00
2011/12	22.70	261.17	1,001.50
2012/13	167.42	462.93	941.40
Total	280.69	1,584.65	3,795.04
Average	56.14	316.93	759.01

ANNEX NO. 5

Cash, Receivables and Inventory to CAs of DNL

(In Percentage)

Year	Cash to CAs	Receivable to CAs	Inventory to CAs
2008/09	0.027	0.26	0.48
2009/10	0.022	0.37	0.50
2010/11	0.029	0.10	0.62
2011/12	0.014	0.16	0.62
2012/13	0.086	0.24	0.49
Total	0.036	0.23	0.54
Average	0.04	0.23	0.54

ANNEX NO. 6

Inventory Conversion Period (ICP)

(In Days)

Year	Inventory	Sales	ICP
2008/09	617.44	2,447.50	90.82
2009/10	551.70	2,719.95	73.02
2010/11	683.00	2,765.20	88.92

2011/12	1,001.50	3,269.17	110.28
2012/13	941.40	4,283.88	79.11
Total	3,795.04	15,485.70	442.15
Average	759.01	3,097.14	88.43

ANNEX NO. 7

Receivable Conversion Period (RCP)

(In Days)

Year	Receivable	Sales	RCP
2008/09	335.35	2,447.50	49.33
2009/10	411.60	2,719.95	54.48
2010/11	131.60	2,765.20	17.13
2011/12	261.17	3,269.17	28.76
2012/13	462.93	4,283.88	38.90
Total	1,602.65	15,485.70	188.60
Average	320.53	3,097.14	37.72

ANNEX NO. 8

Payable Deferral Period (PDP)

(In Days)

Year	Payable	Cost of goods sold	PDP
2008/09	553.95	1,892.17	105.39
2009/10	477.04	2,162.86	79.40
2010/11	274.05	2,141.30	46.07
2011/12	837.36	2,302.70	130.91
2012/13	1,340.84	3,088.37	156.30
Total	3,483.24	11,587.40	518.08
Average	696.65	2,317.48	103.62

ANNEX NO. 9

Cash Conversion Cycle (CCC)

(In Days)

Year	ICP	RCP	PDP	CCC
2008/09	90.82	49.33	105.39	34.76
2009/10	73.02	54.48	79.4	48.10
2010/11	88.92	17.13	46.07	59.98
2011/12	110.28	28.76	130.91	8.13
2012/13	79.11	38.9	156.3	-38.29
Total	442.15	188.6	518.07	112.68
Average	88.43	37.72	103.61	22.54

Table 1

Calculation of Standard Deviation, Correlation Co-efficient and P.E. between the CAs and CLs

(Rs. in Billions)

Year	CAs (X)	CLs (Y)	(X - \bar{X}) x	(Y - \bar{Y}) y	x ²	y ²	xy
2008/09	1.28	0.84	- 0.126	- 0.178	0.0159	0.0314	0.0224
2009/10	1.10	0.72	- 0.306	- 0.298	0.0936	0.0888	0.0912
2010/11	1.09	0.47	- 0.316	- 0.548	0.0999	0.3003	0.1732
2011/12	1.62	1.37	0.214	0.353	0.0458	0.1246	0.0755
2012/13	1.94	1.69	0.534	0.672	0.2852	0.4516	0.3588
Total	$\Sigma X =$ 7.03	$\Sigma Y =$ 5.09			$\Sigma x^2 =$ 0.5404	$\Sigma y^2 =$ 0.997	$\Sigma xy =$ 0.7211
mean	$\bar{X} =$ 1.406	$\bar{Y} =$ 1.018					

Karl Pearson's formula to find out correlation of co-efficient:

Now,

$$\sigma_x = \sqrt{\frac{\Sigma(x - \bar{x})^2}{n}} = \sqrt{\frac{0.5404}{5}} = 0.1081$$

$$\sigma_y = \sqrt{\frac{\Sigma(y - \bar{y})^2}{n}} = \sqrt{\frac{0.997}{5}} = 0.1994$$

$$\begin{aligned} \text{Correlation coefficient, } r(xy) &= \frac{\Sigma xy}{\sqrt{\Sigma x^2 \cdot \Sigma y^2}} \\ &= \frac{0.7211}{\sqrt{0.5404 \times 0.997}} = 0.9824 \end{aligned}$$

Now,

$$\text{P. E.} = \frac{0.6745(1 - r^2)}{\sqrt{n}} \quad \text{P. E.} = \frac{0.6745(1 - 0.9824^2)}{\sqrt{5}} \quad \text{P. E.} = 0.0105$$

Table 2**Calculation of Standard Deviation, Correlation Co-efficient and P.E. between the Receivable and Sales****(Rs. in Billions)**

Year	Receivable (X)	Sales (Y)	(X - \bar{X}) x	(Y - \bar{Y}) y	x ²	y ²	xy
2008/09	0.34	2.45	0.02	- 0.648	0.0004	0.4199	- 0.013
2009/10	0.41	2.72	0.09	- 0.378	0.0081	0.1429	- 0.034
2010/11	0.13	2.77	- 0.19	- 0.328	0.0361	0.1076	0.0623
2011/12	0.26	3.27	- 0.06	0.172	0.0036	0.0296	- 0.0103
2012/13	0.46	4.28	0.14	1.182	0.0196	1.3971	0.1655
Total	$\Sigma X =$ 1.60	$\Sigma Y =$ 15.49			$\Sigma x^2 =$ 0.0678	$\Sigma y^2 =$ 2.0971	$\Sigma xy =$ 0.1705
Mean	$\bar{X} =$ 0.32	$\bar{Y} =$ 3.098					

Karl Pearson's formula to find out correlation of co-efficient:

Now,

$$\sigma_x = \sqrt{\frac{\Sigma(x - \bar{x})^2}{n}} = \sqrt{\frac{0.0678}{5}} = 0.116$$

$$\sigma_y = \sqrt{\frac{\Sigma(y - \bar{y})^2}{n}} = \sqrt{\frac{2.0971}{5}} = 0.65$$

$$\begin{aligned} \text{Correlation coefficient, } r(xy) &= \frac{\Sigma xy}{\sqrt{\Sigma x^2 \cdot \Sigma y^2}} \\ &= \frac{0.1705}{\sqrt{0.0678 \times 2.0971}} = 0.3122 \end{aligned}$$

Now,

$$\text{P. E.} = \frac{0.6745(1 - r^2)}{\sqrt{n}} \quad \text{P. E.} = \frac{0.6745(1 - 0.3122^2)}{\sqrt{5}} \quad \text{P. E.} = 0.2722$$

Table 3**Calculation of Standard Deviation, Correlation Co-efficient and P.E. between the Inventory and Sales****(Rs. in Billions)**

Year	Inventory (X)	Sales (Y)	(X - \bar{X}) x	(Y - \bar{Y}) y	x ²	y ²	xy
2008/09	0.61	2.45	-0.146	- 0.648	0.0213	0.4199	0.0946
2009/10	0.55	2.72	-0.206	- 0.378	0.0424	0.1429	0.0779
2010/11	0.68	2.77	-0.076	- 0.328	0.0058	0.1076	0.0249
2011/12	1.00	3.27	0.244	0.172	0.0595	0.0296	0.419
2012/13	0.94	4.28	0.184	1.182	0.0339	1.3971	0.2175
Total	$\Sigma X =$ 3.78	$\Sigma Y =$ 15.49			$\Sigma x^2 =$ 0.1629	$\Sigma y^2 =$ 2.0971	$\Sigma xy =$ 0.4568
Mean	$\bar{X} =$ 0.756	$\bar{Y} =$ 3.098					

Karl Pearson's formula to find out correlation of co-efficient:

Now,

$$\sigma_x = \sqrt{\frac{\sum(x - \bar{x})^2}{n}} = \sqrt{\frac{0.1629}{5}} = 0.1805$$

$$\sigma_y = \sqrt{\frac{\sum(y - \bar{y})^2}{n}} = \sqrt{\frac{2.0971}{5}} = 0.65$$

$$\begin{aligned} \text{Correlation coefficient, } r(xy) &= \frac{\sum xy}{\sqrt{\sum x^2 \cdot \sum y^2}} \\ &= \frac{0.4568}{\sqrt{0.1629 \times 2.0971}} = 0.7815 \end{aligned}$$

Now,

$$\text{P. E.} = \frac{0.6745(1 - r^2)}{\sqrt{n}} \quad \text{P. E.} = \frac{0.6745(1 - 0.7815^2)}{\sqrt{5}} \quad \text{P. E.} = 0.1174$$

Table 4

Calculation of standard deviation, Correlation Co-efficient and P.E. between the Net WC and sales

(Rs. in Billions)

Year	Net WC (X)	sales (Y)	(X - \bar{X}) x	(Y - \bar{Y}) y	x ²	y ²	xy
2008/09	0.45	2.45	0.06	- 0.648	0.0036	0.4199	- 0.0389
2009/10	0.38	2.72	- 0.01	- 0.378	0.0001	0.1429	0.0038
2010/11	0.62	2.77	0.23	- 0.328	0.0529	0.1076	- 0.0754
2011/12	0.25	3.27	- 0.14	0.172	0.0196	0.0296	- 0.0241
2012/13	0.25	4.28	- 0.14	1.182	0.0196	1.3971	- 0.1655
Total	$\Sigma X =$ 1.95	$\Sigma Y =$ 15.49			$\Sigma x^2 =$ 0.0958	$\Sigma y^2 =$ 2.0971	$\Sigma xy =$ - 0.3001
Mean	$\bar{X} =$ 0.39	$\bar{Y} =$ 3.098					

Karl Pearson's formula to find out correlation of co-efficient:

Now,

$$\sigma_x = \sqrt{\frac{\Sigma(x - \bar{x})^2}{n}} = \sqrt{\frac{0.0958}{5}} = 0.1384$$

$$\sigma_y = \sqrt{\frac{\Sigma(y - \bar{y})^2}{n}} = \sqrt{\frac{2.0971}{5}} = 0.65$$

$$\begin{aligned} \text{Correlation coefficient, } r(xy) &= \frac{\Sigma xy}{\sqrt{\Sigma x^2 \cdot \Sigma y^2}} \\ &= \frac{-0.3001}{\sqrt{0.0958 \times 2.0971}} = -0.6695 \text{ or } -0.67 \end{aligned}$$

Now,

$$\text{P. E.} = \frac{0.6745(1 - r^2)}{\sqrt{n}} \quad \text{P. E.} = \frac{0.6745[1 - (-0.67^2)]}{\sqrt{5}} \quad \text{P. E.} = 0.1662$$

Table 5

Calculation of standard Deviation, Correlation Co-efficient and P.E. between the Net Profit and Net WC

(Rs. in Millions)

Year	NPAT (X)	Net WC (Y)	(X - \bar{X}) x	(Y - \bar{Y}) y	x ²	y ²	xy
2008/09	44.08	445.14	-12.32	55.89	151.78	3,123.69	-688.56
2009/10	1.40	379.30	- 55.00	- 9.95	3,025.00	99.00	547.25
2010/11	94.40	621.50	38.00	232.25	1,444.00	53,940.06	8,825.50
2011/12	25.92	249.52	-30.48	-139.73	929.03	19,524.47	4,258.97
2012/13	116.19	250.79	59.79	-138.46	3,574.84	19,171.17	-8,278.54
Total	$\Sigma X =$ 281.99	$\Sigma Y =$ 1,946.79			$\Sigma x^2 =$ 9,124.65	$\Sigma y^2 =$ 95,858.39	$\Sigma xy =$ 4,664.64
Mean	$\bar{X} =$ 56.40	$\bar{Y} =$ 389.25					

Karl Pearson's formula to find out correlation of co-efficient:

Now,

$$\sigma_x = \sqrt{\frac{\sum(x - \bar{x})^2}{n}} = \sqrt{\frac{9,124.65}{5}} = 42.72$$

$$\sigma_y = \sqrt{\frac{\sum(y - \bar{y})^2}{n}} = \sqrt{\frac{95,858.39}{5}} = 138.46$$

$$\begin{aligned} \text{Correlation coefficient, } r(xy) &= \frac{\sum xy}{\sqrt{\sum x^2 \cdot \sum y^2}} \\ &= \frac{4,664.64}{\sqrt{9,124.65 \times 95,858.39}} = 0.1577 \end{aligned}$$

Now,

$$P.E. = \frac{0.6745(1 - r^2)}{\sqrt{n}} \quad P.E. = \frac{0.6745(1 - 0.1577^2)}{\sqrt{5}} \quad P.E. = 0.2911$$

Table 6

Calculation of Standard Deviation, Correlation co-efficient and P.E. between the Current Assets and Sales

(Rs. in Billions)

Year	CAs (X)	Sales (Y)	(X - \bar{X}) x	(Y - \bar{Y}) y	x ²	y ²	xy
2008/09	1.28	2.45	- 0.126	- 0.648	0.0159	0.4199	0.08165
2009/10	1.10	2.72	- 0.306	- 0.378	0.0936	0.1429	0.11567
2010/11	1.09	2.77	- 0.316	- 0.328	0.0999	0.1076	0.10365
2011/12	1.62	3.27	0.214	0.172	0.0458	0.0296	0.03681
2012/13	1.94	4.28	0.534	1.182	0.2852	1.3971	0.63119
Total	$\Sigma X =$ 7.03	$\Sigma Y =$ 15.49			$\Sigma x^2 =$ 0.5404	$\Sigma y^2 =$ 2.0971	$\Sigma xy =$ 0.96897
Mean	$\bar{X} =$ 1.406	$\bar{Y} =$ 3.098					

Karl Pearson's formula to find out correlation of co-efficient:

Now,

$$\sigma_x = \sqrt{\frac{\Sigma(x - \bar{x})^2}{n}} = \sqrt{\frac{0.5404}{5}} = 0.1081$$

$$\sigma_y = \sqrt{\frac{\Sigma(y - \bar{y})^2}{n}} = \sqrt{\frac{2.0971}{5}} = 0.65$$

$$\begin{aligned} \text{Correlation coefficient, } r(xy) &= \frac{\Sigma xy}{\sqrt{\Sigma x^2 \cdot \Sigma y^2}} \\ &= \frac{0.96897}{\sqrt{0.5404 \times 2.0971}} = 0.9102 \end{aligned}$$

Now,

$$P.E. = \frac{0.6745(1 - r^2)}{\sqrt{n}} \quad P.E. = \frac{0.6745(1 - 0.9102^2)}{\sqrt{5}} \quad P.E. = 0.0518$$

Balance Sheet

As at 31 March

Dabur Nepal Private Limited

Tinkune, Kathmandu, Nepal

(Rs. In lakhs)

Particulars	2008/09	2009/10	2010/11	2011/12	2012/13
Liabilities and equity					
Current Liabilities and Provisions:					
Short term borrowings	0	0	0	3,007.28	4,890.38
A/payable	5,539.48	4,770.43	2,740.5	13,408.37	8,373.56
Other Current CLs	2,374.06	2,040.47	1,174.5	412.58	310.4
short term provisions	459.24	419.72	809	51.44	164.09
Total CLs	8,372.79	7,234.13	4,724	16,879.68	13,738.43
Loan funds:					
Secured loan	4,690.64	3,830.07	2,863	1,586.06	1,622.25
Unsecured loan	48.13	57.24	2,095	176.62	329.83
Total Loan	11,884.4	11,346.91	4,958	1,762.68	1,952.08
Shareholder funds:					
Share capital	499.08	499.08	499.08	499.08	499.08
Reserve and surplus	6,646.55	6,960.51	7,830	8,660.5	8,401.23
	7,145.63	7,459.59	8,329.08	9,159.57	8,900.31
Total Liabilities & Equity (A)	20,254.41	18,581.52	18,011.08	27,801.93	24,590.81
Current Assets:					
Inventories	6,174.36	5,516.98	6,830	9,413.96	1,0015.01
Sundry debtors (A/R)	3,353.5	4,115.8	1,316	4,629.27	2,611.7
Cash and Bank balance	345.69	246.59	313	1,674.23	226.99
Other current assets	0	0	0	1,693.82	1,677.18
Short term loan and advance	2,950.79	1,148.13	2,480	1,976.3	1,702.69
Total CAs	12,824.34	11,027.51	10,939.00	19,387.57	16,233.58
Fixed assets	7,430.07	7,554.01	7,072.08	8,402.78	8,337.8
Other long term assets	0	0	0	11.58	19.43
Total Assets (B)	20,254.41	18,581.52	18,011.08	27,801.93	24,590.81

Profit and Loss Account

As at 31 March

Dabur Nepal Private Limited

Tinkune, Kathmandu, Nepal

(Rs. in Lakhs)

Particulars	2008/09	2009/10	2010/11	2011/12	2012/13
Income:					
Sales less Returns	24,474.95	27,199.52	27,652	32,691.67	42,838.79
Other Income	165.02	133.84	126	11.76	155.4
Total Income	24,639.97	27,333.35	27,778	32,703.43	42,994.19
Expenditure:					
Cost of Materials	17,797.6	20,171.89	19,843	22,691.04	31,174.63
Excise Duty	83.01	116.53	172	0	0
Manufacturing Expenses	1,124.05	1,456.7	1,570	335.98	-290.96
Payments to and Provisions for Employees	1,392.1	1,635.47	1,819	1,812	2,344.48
Selling and Administrative Expenses	2,371.19	2,557.69	1,910	0	0
Financial Expenses	453.75	404.12	319	340.21	1,975.8
Depreciation	851.53	973.54	945	885.51	1,062.34
Other Expenses	0	0	0	4,985.1	6,391.69
Provision for Housing	0	0	0	82.68	0
Provision for Bonus	0	0	0	142.81	30.56
Total Expenses	24,073.23	27,315.83	26,578	31,275.32	42,688.54
Net Operating Profit Before and Tax	566.74	17.52	1,200	1,428.11	305.65
Provision for taxation current	125.93	2.74	239	285.62	113.51
Provision for taxation Deferred	0	0	17	-19.38	-67.13
Net Profit after tax	440.81	14.58	944	1,161.86	259.27

Notes:-

Cost of Goods Sold:
1) Cost of Materials
2) Manufacturing Expenses