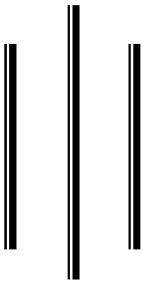
WORKING CAPITAL MANAGEMENT OF SUMY DISTILLERY LTD.



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RECOMMENDATION

This is to certify that the thesis

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Working Capital Management of
SUMY DISTILLERY LTD.

has been prepared and approved by this department in the prescribed format of faculty of management. This thesis is forwarded for evaluation.

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and found the thesis to be the original work of the student and written according to the prescribed format. We recommended the thesis to be accepted as partial fulfillment of the requirement for

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DECLARATION

I hereby proclaim that the thesis work entitled **Working Capital Management of Sumy Distillery Ltd.** submitted to Balkumari College, Faculty of Management, Tribhuvan University is my original work for the partial fulfillment of the requirement for the Master's Degree of Business Studies (MBS) under the supervision of Mr. Guna Raj Chhetri Lecturer of Balkumari College Narayangarh Chitwan.

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Acknowledgement

This thesis entitled "Working Capital Management of Sumy Distillery Ltd." has been prepared in the prescribed from as required by the central department of management for the partial fulfillment of master degree in business administration. I hope it would provide the key point to understand and knowledge positive realistic appearance of working capital management field.

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Date:

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Abbreviations

S. D. Ltd (SDL)	=	Sumy Distilleries Limited
NIDC	=	Nepal Industrial Development Corporation
PEs.	=	Public Enterprises
V.D.Cs.	=	Village Development Communities
WC	=	Working Capital
CAs	=	Current Assets
CLs	=	Current Liabilities
GWC	=	Gross Working Capital
NWC	=	Net Working Capital
ICP	=	Inventory Conversion Period
BDCP	=	Book Debts Conversion Period
RMCP	=	Raw Material Conversion Period
WIPCP	=	Work-in-progress Conversion Period
FGCP	=	Finished Goods Conversion Period
GOS	=	Gross Operating Cycle
NOC	=	Net Operating Cycle
NLL	=	Nepal Lever Limited
Ltd.	=	Limited
r	=	Correlation Coefficient
PE	=	Probable Error
Co.	=	Company
STF	=	Short-Term Financing
LTF	=	Long-Term Financing
TF	=	Total Financing
MPEs	=	Manufacturing Private Enterprises
FY	=	Fiscal Year
CATA	=	Current Assets to Total Assets
CAFA	=	Current Assets to Fixed Assets
CBCA	=	Cash and Bank Balance to Current Assets

CBTA	=	Cash and Bank Balance to Total Assets
I	=	Inventories
ITA	=	Inventories to Total Assets
ICA	=	Inventories to Current Assets
A/RTA	=	Receivables to Total Assets
A/RCA	=	Receivables to Current Assets
CR	=	Current Ratio
QR	=	Quick Ratio
GPM	=	Gross Profit Margin
NPM	=	Net Profit Margin
OR	=	Operating Ratio
ROA	=	Return on Assets
RONW	=	Return on Net Worth
ROWC	=	Return on Working Capital
WCT	=	Working Capital Turnover
ITR	=	Inventory Turnover Ratio
COGS	=	Cost of Goods Sold
RTR	=	Receivable Turnover Ratio
ACP	=	Average Collection Period
DOS	=	Days Sales Outstanding
OC	=	Operating Cycle
ICP	=	Inventory Conversion Period
RCP	=	Receivable Conversion Period
CCC	=	Cash Conversion Cycle
PDP	=	Payable Deferral Period
PCP	=	Payable Conversion Period

CHAPTER ONE

INTRODUCTION

1.1. Background

Working Capital is life blood of any organization. The management of working capital is not simple one, with the minor mistakes on decision making about he adequacy of the working capital, in a concern may put company into liquidation. The manufacturers have an adequate supply of raw materials to process or adequate cash to meet wages bills otherwise it causes a serious problem in its operation.

Manufacturing public enterprises are key instruments of country's economy. What happens in economy is a part of the effects coming from that performance of public enterprises, as well as their working capital management. So, researcher has reflected brief introduction over industrialization and its development in Nepal. It is believed that in order to achieve security, stability and high standard of living the countries must be industrialized. The most important reason for embarking on a performance of industrialization is to increase the national income (Muny, D. Bryle:1969)

Historically industrial development process began after 1936 with the establishment of Biratnagar Jute Mill. It was established under the company act 1936 which was the first Joint Stock Company of Nepal and was incorporated in 1937. During 1936-1944, a number of industries particular in the field of cotton, textile, sugar, match, hydropower, rice, oil, cigarettes were setup in the South Eastern Terai region. During Second World War, a group of another five joint stock company was established in the country which brings boosting in the development of the industries. After 1950's, Nepal started planned economic development effort to obtain rapid economic growth. Then the development of modern industries in the

public sector started with planned economic development. In our country various manufacturing companies have been established and developed through government efforts funding from NIDC to industries under various five year development plants. At present, 9th plan is running. But due to poor performance negative return, lack of efficiency, inefficient in management, government has emphasized on privatization, so that public enterprises could be competitive, efficient and profitable. A total of 16 public enterprises have been privatized under different modalities in three phases by launching privatization process. More enterprises are in the pipeline for privatization in the government policy and programs.

So, industrialization is universally accepted as a strategy of economic development. It is the key factor in the process of achieving economic growth; prosperity has long been recognized in economic literature. It offers prospects for expansion of employment, income and generates innovations, technological changes that bring about shifts in production frontier, thereby accelerating growth and factor productivity. Industrialization by broadening the middle class and creating new industrial work force (Regmi, Govinda Pd.:1994)

Working Capital Management practice in Nepalese manufacturing enterprises provides totally a different picture. The past trend of many manufacturing companies had given emphasis in fixed asset, so they are facing financial problem all the time, in result shows lower efficiency. The government policy to concentrate more on fixed assets has overloaded the financing of working capital. So in order to create the culture of risk bearing ability through commercial prudence and professionalism, the aspect of working capital should be treated in the same way as fixed capital, while deciding the structure of the manufacturing companies recently short term financial decision has never received much attention in the literature of finance. Because of earlier emphasis of financial management, was more long-term financial decision, which led to growth and development of many useful theories concerning these decisions as compared to short-term financial decision (Pradhan, Radhe Shyam:1986)

However in recent years it has been realized that the area of working capital intricately inter woven with cusses of failure of the such situation where shortage of funds for working capital has caused many businesses to fail and is less server caused has stunted their growth (Marthn, Grass:1972)

Working capital is life blood of enterprises. The inefficient management of working capital will lead to loss of profits in the short run, but it will lead to downfall of the enterprises in the long run. In this sense, the cost of inadequate planning in the use of working capital is immeasurable. A deeper understanding of the importance of working capital and its satisfactory provision can lead not only to material saving as well as economic use of capital but can also assert in furthering the ultimate aim of business (Lesh, R Howard: 1971)

So, maintaining the optimal level of working capital is the crux problem as it's strongly related to the trade off between risk and return. In such circumstances an outmost care should be taken in the management of such assets because inadequate investment, not only threaten the solvency of the enterprise but also affects the growth. Setting optimal level of working capital requires and exercises of determining that level of current assets, where total cost, cost of liquidity and illiquidity is minimum. The aspect of determining appropriate proportion of working capital in the structure of total assets comes under the preview of working capital policy. The unnecessary blocking of working capital, administrative negligence in day to day operation and serious liquidity problem are the main causes to failure the manufacturing companies of Nepal. Most of Nepalese manufacturing companies are operating in loss, though they are following aggressive approach of working capital management.

1.1.1 Brief introduction of Sumy Distillery (Pvt) Ltd.

Sumy Distillery ltd.was established in 1999 A.D. under the authority of HMG of Nepal. The factory is situated at Mukundapur V.D.Cs.-9,

Nawalparasi district, Lumbini, at the bank of Narayani river, which is about 17 Kilometer west from Narayangarh. Its head office is in Maharajgunj, Kathmandu. This factory produces various brand of hard drink i.e. alcoholic drink to the customers. It produces more than 14 brands of different hard drinks of which Gill Marry, Wainscot Wishkey, Juniper Berry, Soufi are popular brand. Their products are marketed all over Nepal.

Various brand of Sumy Distillery Ltd. has been categories according to their strength. Strength is the process of measuring the percentage of the alcohol in the particular brand. Strength are 25up, 40up, 50up and 70up. Strength 25up means 75 percentage of alcohol is included in the brand. The 25up product is only Wainscot Whisky. This brand is even exports to outside country. Strength 40up means 60 percentage of alcohol is included in the brand. Gill Marry, Juniper Berry, Blue Liner, Black Liner and Old Flame are 40up brands. In 50up brands 50 percentage of alcohol is included. Brands are Genial, Veer, Jassi Dudiya, Cordan, Super hit and Junoon. In 70up brands 30 percentages of alcohol is included. Brand are Jhatka Soufi, Jhatka(Black),Knight Rover (White) and Knight Rover (Black). 70up brands are available in plastic bottle where as other 25up, 40up & 70up brands are available case in glass bottle. These product are justly sold to authorized distributors and than to the shop and hotel. The products are dispatch only after the payment of excise duty in VAT office according to the strength. This is checked by excise officer who are kept by VAT office. About 145 employees are engaged in this cowpony. Among them 120 persons are productive labours.

1.2 Statement of Problem

Working Capital Management becomes difficult in many organizations. In most enterprises the management of working capital has been misunderstood as the management of money and the managers are found over conscious about the burdening of money rather than its efficient utilization. Regarding the management of working capital sources most of

the public enterprises have never been through seriously. They are usually found to depend upon HMG even for overcoming the shortages of Working Capital in spite of trying to manage Working Capital needs form depreciation fund and utilized surplus to overcome of working capital (Acharya, Dr. K.:1985). Working Capital management has been the most challenging area of modern corporate finance is as much as the management always faces a trade off between liquidity and profitability of firm (Acharya, Dr. K. :1988)

As working capital management is important instrument for every organization for their success. They should invest available funds adequately in current assets otherwise it will seriously erode their liquidity base. In most enterprises the management of working capital has been misunderstood as the burdening of money rather than it's efficient utilization. So, they must select the type of current assets suitable for investment in proportionate percentage to raise their operational efficiency. Working capital is required to ascertain turnover of current assets that greatly determine the prodigality of the organization. A firm must have sufficient finished products. The efficient management of working capital is useful for every organization over investment, unpredictability of firm, whereas mismanagement of current liabilities will have a negative impact on both cost of capital and risks of the organization.

Nowadays most of the companies have recognized the importance of working capital management. Even then they are not able to obtain full advantages of working capital management. This company is also facing problem considered with working capital management. The working capital of the company is not satisfactory and encouraging. They are maintaining high level of current assets. Various questions arise regarding the problems relating to working capital management in this study. They are:

i. Has there increased or decreased in investment of current assets?

ii. What is the relationship between Working Capital Management and Profitability of the Company?

iii. What types of Inventory Techniques are adopted by the Company?

iv. What Working Capital Policy is the Company following?

v. What is the size of the investment in each type of the working capital?

vi. What is the liquidity position of the Company?

vii. Which type of Current Asset are being more problems for the company?

1.3 Objectives of the Study:

The main Objective of Working Capital Management is to maximize the cost of maintaining Current Assets. The cost of maintaining necessary Current Assets depends on the size of such Assets held. The objectives of managing Working Capital are same as the basic objective of the Firm i.e. to maximize the value of the Firm. Working Capital management is important instrument for any organization. Success or failure of any organization depends on its investment in current assets. They should investment in right percentage so that there will not be excess liquidity. The main objective of this study is to examine the working capital management of Sumy Distilleries Ltd. The specific objectives are as follows:-

i. To know the percent assed in each Current Assets.

ii. To analyze the relationship between working capital management and profitability of the Company.

iii. To study the types of inventory techniques adopted by the Company.

iv. To identify the working capital policy of the Company.

v. To study the size of the investment in each type of the Working Capital.

vi. To identify the liquidity position of the Company.

1.4 Significance of Study

Working capital is related with the short term assets. i.e. current asset. More than half of total assets are invested in current assets. So, it is necessary to study about the working capital management in organization. The significance of the study of it is important for following seasons:-

i. A large proportion of the financial management time is allocated to working capital management.
ii. More than half of the total assets are typically invest in current assets.
iii. The relation between sales growth and the to invest in current assets is close and direct.
iv. This study will attempt to measure the efficiency on working capital of the Company and there by anyone can easily know how for it has been successful in this area.

1.5 Limitations of the Study

Data collection of related field is very difficult in Nepal. In order to make a study on such topic more fruitful, it is essential that should be of frequent time intervals. So, this study also faces many difficulties. They are as follows:

i. This study has been limited to the working capital management of the company which is sample to study about the working capital.
ii. Data provided by the company is secondary in nature.
iii. This study depends upon five years data from fiscal year 2059/060 to 2063/064
iv. The financial tools as well as statistical tools are taken for analyzing the working capital management of the company.
v. Due to time constraints and difficult data it is only a study to fulfill the partial requirement for the MBS degree.

1.6 Organization of the Study.

This study will be organized in five chapters as follows.

I) Introduction

The first chapter describes shortly of different topic. This chapter included background, statement of problem objectives of the study need of the study and organization of the study. As a whole, the chapter in the expansion form of the thesis proposal, which generally needed to submit to the related office of academic department and the thesis advisors.

II) Review of Literature

This chapter includes the conceptual frame work of the related topic of the thesis and writers and deals the general concept of the write and thesis towards the working capital management. This includes the opinion of different writers regarding with the thesis topic. It also includes review of previous related research studies previous student. It is concerned with the concept of working capital management and other topic related with working capital management.

III) Research Methodology

This chapter includes the methodology used in this study. It includes.

i) What types of data collected?

ii) How these data has been collected?

iii) What method or tools has been used to analysis those date?

This chapter deals with research design, nature and source of data, data processing procedures, presentation and analysis of data and tools of data analysis.

IV) Presentation and Analysis of data

In this chapter the collected data are analyzed to greats the final result of the working capital management. Those data are analyzed by financial and statistical tools which will shows the different results that are, Profitability, liquidity, relationship between and among of different variables for analysis.

V) Summary Conclusion & Recommendation

This is the last chapter of the thesis. This chapter includes the conclusion drawn from the study of the thesis. And recommendation should also present in this chapter regarding the study.

Lastly, Bibliography and other appendices used in the study should be attached at the end of the study.

CHAPTER TWO

REVIEW OF LITERATURE

2.1 Introduction

The term working capital is concerned only with the management of current assets and current liabilities. It is controlling nature of business. So, success or failure of enterprises depends upon it. So, far as the management of working capital in Nepalese manufacturing enterprises has a great concern. Different management experts and students of MBS, deriving the working capital management of various enterprises, have undertaken a number of studies. Now, in this chapter the main focus will be on review of literature. Moreover, in order to make this study more comprehensive it is important to go through relevant literature.

The purpose of this chapter is to provide an insight into working capital management and give a bird eye view of different experts through regarding the theory of working capita and its implication. Whole doing review of related literature of working capital management. The researcher has gone through the different financial books bulletins, documents, reports and journals. Thus, this chapter aimed at reviewing an available literature of working capital management in the context of Nepalese manufacturing companies.

2.2 Conceptual of Framework

Working capital management refers to the proper management of firm's current assets and current liabilities. It is concerned with the all decisions and acts that influence the determination of the appropriate level of current assets and their efficient use as well as the choice of the methods of financing them, keeping in view of liquidity. It is needed to run the

organizations, day to day in efficient manner. Thus, working and total current assets are synonymous. It is also called circulating capital, since it keeps on circulation, the course of business operation. Business starts with cash, which is converted into inventory after sometimes. Inventory may be of raw materials, semi-finished goods, and finished goods. The inventory is converted into receivables and receivables into cash again. Thus the cycle becomes complete. This kind of cycle keeps on operating the organization. The length of cycle would differ depending upon the nature of business. Generally cycle would be short for non-manufacturing company.

Working capital is controlling nerve of business organization. The terms working capital of trend is used to refer the firm's current assets (primarily cash, marketable securities, account receivable, and inventories). Working capital refers to the fact that most of its components very closely related with the label of production and sales working capital referred to as short term finance. Gross working capital refers to firm's total current assets where as Net working capital is current assets minus current liabilities. Working capital may be defined as assets held for current use within a business less then among due to those await settlement in short term in whatever form. This idea embraces the recurring transaction from cash to inventories to receivables to cash that form the conventional chain of business operations. Funds employed for short-term are mainly for working capital or operational business. Towards the day to day operation, a firm will have to provide money towards, the purchase of raw materials, payments of wages and salaries to extend credit to buyers of goods as well as to meet other day operations. Working capital management is concerned with the problems that arise in attempting to manage the current assets, current liabilities and inter relationship that exist between them. The current assets refers to those assets which in the ordinary course of value and without disrupting the operation of the firm. The major current liabilities are those liabilities which are intended at their inception to be paid in the ordinary course of business within a year, out of current assets or earnings of the concern. The basic current liabilities are bills

payable, capital overdraft outstanding expenses. The goal of working capital management is to manage the firm's current assets and current liabilities in such a way that the satisfactory level of WC is maintained.

2.3 Concepts of working Capital

There are two concepts or working capital:

i) Gross concept ii) Net Concept

The term "Gross Working Capital" also referred to as working capital means the total current assets. Similarly, "Net Working Capital" can be defined in two ways: (I) the most common definition of Net Working Capital (NWC) is difference between current assets and current liabilities, (II) and alternative definition of NWC is that portion of firm's current assets which is financed with long-term funds (L.J.: Gitman:1976)

WC has to be regarded as one of the conditioning factors in the long-run operations of firm which is often inclined to treat it as and issue of short-run analysis and decision-making. WC management involves deciding upon the amount of composition of CA and how finances these assets (Kuchhalm, S.C.:1981)

There are two concepts of working capital-gross concepts and net concepts. Gross WC, simply called as Working capital, refers to the firm's investment in current assets. Current assets are the assets which can be converted into cash within an accounting year (or operating cycle) and include cash short-term securities, debtors, bills receivables and stock (inventory). Net Working Capital refers to the different between current assets and current liabilities. Current liabilities are those claims of outsiders, which are expected for payments with in an accounting year and include creditors, bills payable and outstanding expenses. Net Working capital can be positive or negative. A positive net working capital will arise when current assets exceed current liabilities. A negative net working capital will occur when current liabilities are in excess of current assets (Pandey, I.M.:1994)

The two concepts of working capital- gross and net are not exclusive; rather they have equal significance from management viewpoint. The gross working capital concept focuses attention on two aspects of current assets management, (a) optimum investment in current assets and (b) financing of current assets. The consideration of the level of investment in current assets should avoid two-danger points- excessive and inadequate investment in current assets. Investment in current assets should be just adequate, nor more not less, to the needs of the business firm. Excessive investment in current assets should be avoided because it impairs firm's profitability, as idle investment earns nothing. On the other hand, inadequate amount of current assets can threaten solvency of the firm if it fiats to meet its current obligations. It should be realized that the working capital needs of the firm might be fluctuating with changing business activity. This may cause etches or shortage of working capital frequently. The management should be prompt to initiate an action and correct imbalances (Pandey, I.M.:1994)

The definitions described above convey in some way or other, the same meaning. They virtually represent the characteristics of the WC. It seems that there is consensus on the following special characteristics of the WC (Mathur, IQbal:1979)

a) Short life: WC is characterized by assets with a life span of less than 1 year such as cash, marketable securities, accounts receivable, and inventories etc. This short life span leads to high volatilities in the level of investments required to finance WC.

b) Nearness to cash or liquidity: This basic characteristic constitutes the first line of defense against technical insolvency. Cash is the most liquid assets having zero conversion time and 100 percent conversion rate. But for inventory and marketable securities two factors i.e. (I) nearness to cash or amount of time required converting assets into cash, and (II) Price realized on conversion must be considered.

c) Lack of synchronization: Since the enterprise cannot produce on order only and cannot insist on cash payments there is always the problem of synchronization in cash receipts and disbursements. It is also due to the level of investments in WC that is affected by the sales volume, production policies and collection policies.

The basic characteristics of WC as mentioned above indicate that it is a term of capital intended to be kept moving or circulation and its potential for earning comes from movements. Though the expenditure can be controlled and planned its income is usually subject to random variation and is not controllable (Golloghar, J.S.)

2.3.1 Determinants of working capital

Manufacturing enterprises need higher volume of WC as compared to public utility enterprises. But quantitative amounts of WC needed to such enterprises can hardly be set due to the following environments that affect WC needs of particular enterprises.

I. Manufacturing Cycle: It has a great impact on the WC needs because the shorter the manufacturing periods and efficiency in production, the lesser the need of WC to finance in WC and vice-versa.

II. Business fluctuation: The situation whether an enterprise is operating in the bloom or recession and depression period also determines the WC needs of the enterprise.

III. Production Policy: The policy whether to follow uniform and level production plan or varying production plan determines the WC needs of the individual enterprises. Naturally, a firm following uniform production policy requires higher amount of WC and vice-versa.

IV. Credit policy and availability of credit: It's funds are readily available from banks or credit facilities or it follows conservative

sales policy then such firm needs lesser amount of WC and vice-versa.

V. Growth and expansion activities: The volume of assets or sales as well as expansion activities of the enterprises has direct bearing upon the needs of WC. The higher the volume and expansion activities, the higher the needs of WC and vice-versa.

VI. Turnover of circulating capital: How frequently and rapidly the working assets are converted into cash also determined by demand and sales policy of the particular enterprises.

VII. Competitive conditions: An enterprise dominating in the market without having keen competition may be in a favorable situation for keeping less amount of WC.

VIII. Price levels change: Generally, rising price levels will required a firm to maintain higher amount of WC. Same levels of CAs will need increased investment when price increase.

IX. Operating Efficiency: Higher the operating efficiency lower will be WC and vice-versa.

X. Others: Factors such as coordination between production and distribution activities, conservation dividend policy as well as liberal depreciation policy strengthen the WC position of the enterprise.

2.3.2. Source of Working capital

The working capital can be obtained from different sources. The sources are:

i. Funds from operation: The major source of working capital is the funds from operation, which refer to those funds which are generated by carrying out the central operations of a business.

ii. Process from the sale of non-current assets: Sale of non-current assets in amount will convert non-current assets to a current asset

and is a source of fund regardless of the fact whether the asset is sold for a gain or loss.

iii. Long-term Borrowing: Long-term borrowing such as issue of debentures and convertible bonds results in the increases of current assets (cash) and therefore an increase in the working capital in case of short term borrowing, the increase of current asset is offset by an increase in the current liabilities and therefore result is no change in working capital.

iv. Issue of shares for cash: Issue of share results in an inflow of current assets and is therefore a source in the case of the proprietorship and partnership concerns additional capital introduced was source of funds.

v. Non-operating Income: Incomes like dividend, interest received from operations outside the framework of the central operation of a business results in an inflow of current assets and, therefore, to be shown as source.

2.3.3. Applications of Working Capital

Purchase of Fixed Assets: The purchase of long-term assets, such as plant and equipment, either reduces current assets and or increases current liabilities. Consequently, the working capital is reduced.

i. Redemption or payment of long-term debt: Repayment of a short-term debt is not considered as the uses of fund, since both current assets and current liabilities are reduced by the same amount. But the payment of a long-term debt results in the reduction of a current asset and is, therefore, use of fund.

ii. Redemption of preference shares or investment made: When cash is paid to redeem preference shares or to purchase securities as investment, working capital is reduced and therefore is use of fund.

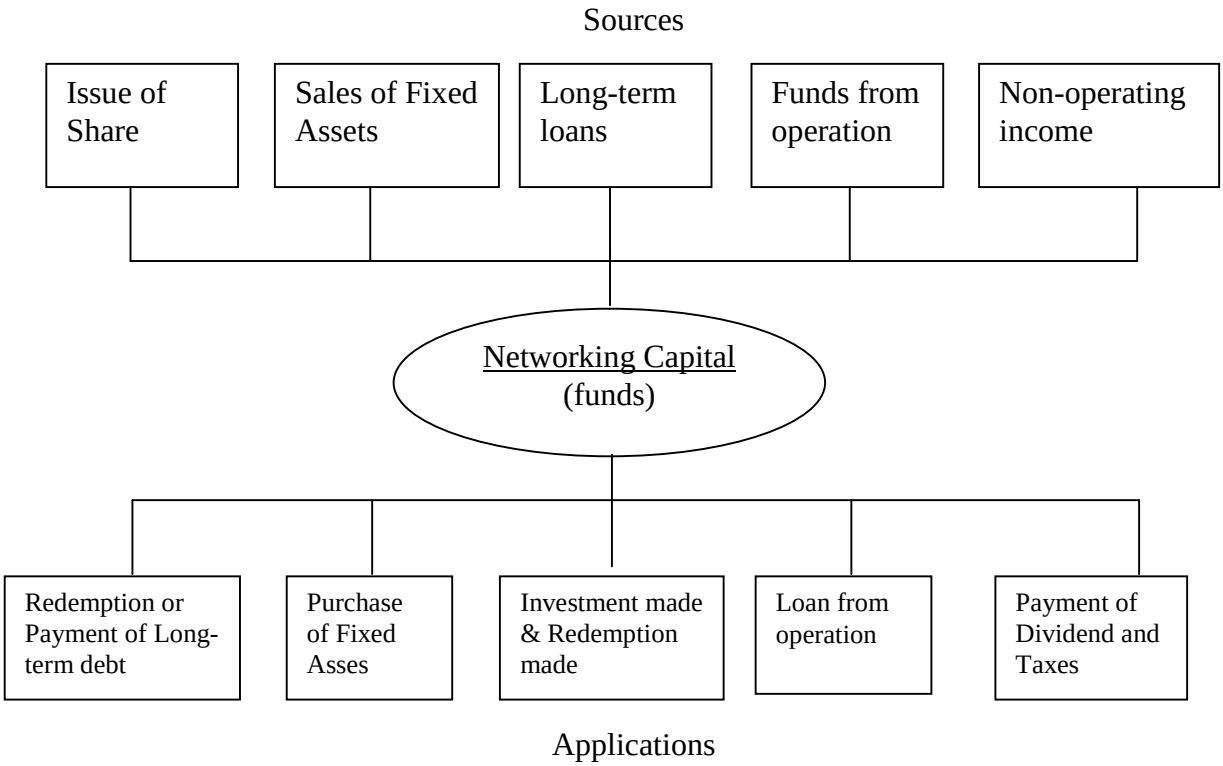
iii. Loss from operations: Any loss from the operation results in more outflow of funds as compared to inflow of funds and is, therefore, use of funds.

iv. Payment of dividend, tax etc: Any dividend or tax paid in cash results in outflow of current assets, therefore, and application of funds.

The sources and application of funds are diagrammatically shown in the following figure.

Figure No. 2.1

Sources and Application of Fund



2.3.4. Working Capital policy

The components of WC constitute the current assets and they are way financing i.e. current liabilities. The term current assets refers to those assets which is the ordinary course of business can be or will be turned into cash within one year without undergoing a diminution in value and without disrupting the operation of the firm (Khan, M.Y. & Jain, P.K.:1993)

In an enterprise the level and quality of current assts and current liabilities is guided by the WC policy and management adopted by it. WC management involves all aspects of the administration of current assets and current liabilities (Western, J.F. & Brigham, E.F.)

In other word, WC management is concerned with the problems that arise in attempting to manage the current assets, the current liabilities and the interrelationships that exist between them. The crux of the problem whole formulating working capital policy is to maintain optimality on at the level of investment in cash and the financing of current assets. There should be optimum investment in the level of current assets because excessive or idle investment in current assets earns nothing to the enterprise and consequently affects the profitability. On the other hand, inadequate level of investment in current assets threatens the solvency of the enterprises if it fails to meet obligation when they become due. So, WC policy should be designed to overcome such imbalance when they arise.

In the same way the financing aspects of currents should not be over looked in its management. Because whether to use long term or short-term funds to finance currents have significant impact on an enterprise risk or return, liquidity and profitability. As it is known funds long term as well as short term involve cost. And cost of financing is a deciding factor in the use of type of funds in any enterprises.

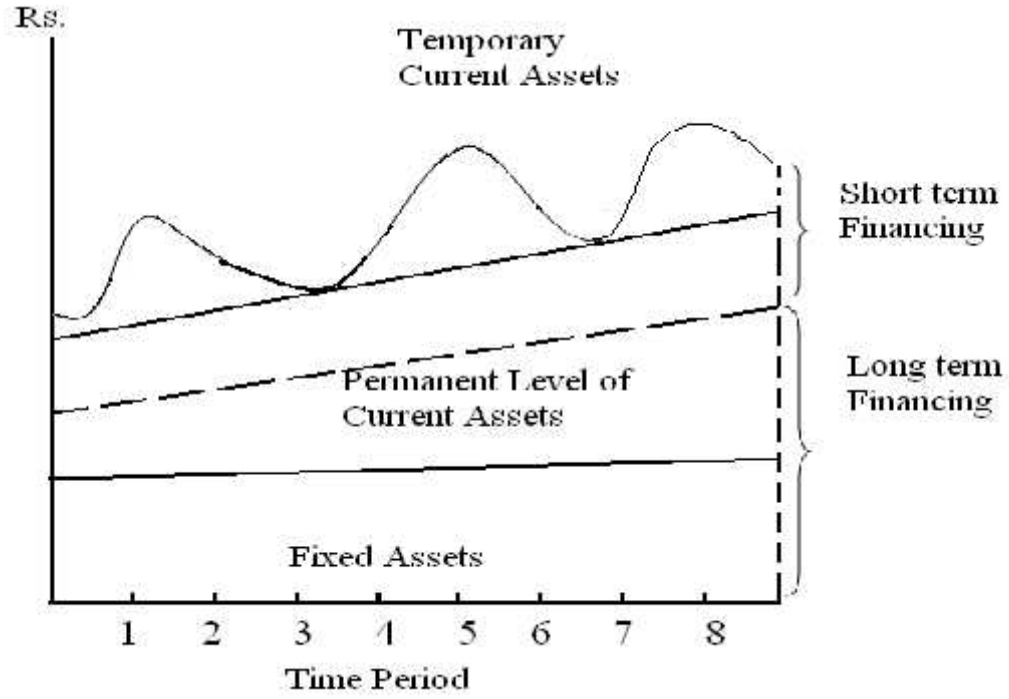
Generally short term funds have lower cost of financing and are preferred to be used in current assets. But it may hold good also. Because depending upon the nature of management towards risk, liquidity and profitability, the enterprise can adopt one of the varieties of approaches to fit its particular WC financing requirements. The following are the main approaches of financing the WC need of the enterprise (Mathur, Iqbal:1979)

a. Aggressive Approach

In the approach variable as well as a portion of permanent current assets in financed through short-term borrowing. Some aggressive firms may even finance a part of their fixed assets with short financing (Pandey, I.M.:1994). Hence, this sort of mix financing increases the profitability and exposes towards risk by financing relatively larger portion of its assets lower cost short term borrowing.

Figure No. 2.2

Aggressive Approach



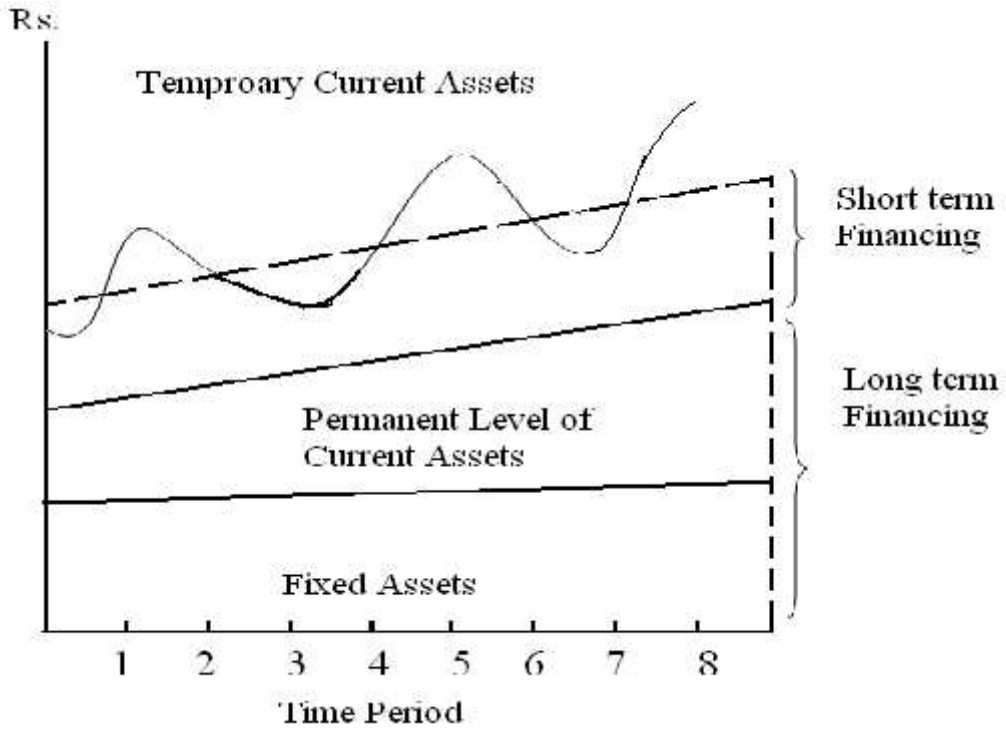
***Source*: Weston, Besley And Brigham; Essentials of Management Finance.**

b. Conservative Approach

The financing policy of the firm is said to be conservation when it depends more on long-term funds for financing needs. Under a conservative plan, the firm finances its permanent assets and a part of temporary current assets; it stores liquidity by investing surplus funds into marketable securities. The conservative plan relies heavily on long term financing and therefore, is less risky. The conservative financing

policy is shown in below figure, It is less risk approach resulting lower return.

Figure No. 2.3
Conservative Approach



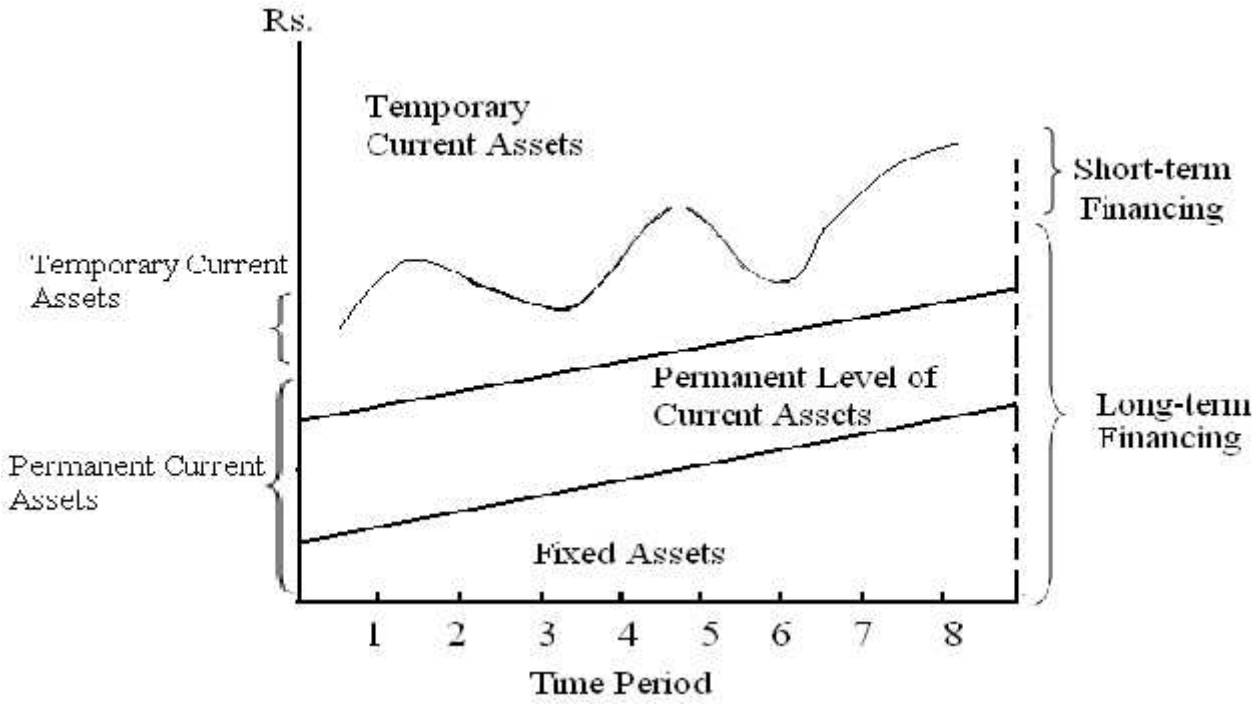
Source: **Weston, Besley And Brigham; Essentials of Management Finance.**

c. Moderate Approach

In this policy the firm finances the permanent current assets with long term financing and temporary with short term financing. It lies in between the aggressive and conservative policies. It leads to neither high nor low level of current assets and current liabilities. Below figure shows short term financing and long term by long term financing. Thus working capital is zero under this policy.

Figure No. 2.4

Moderate Approach



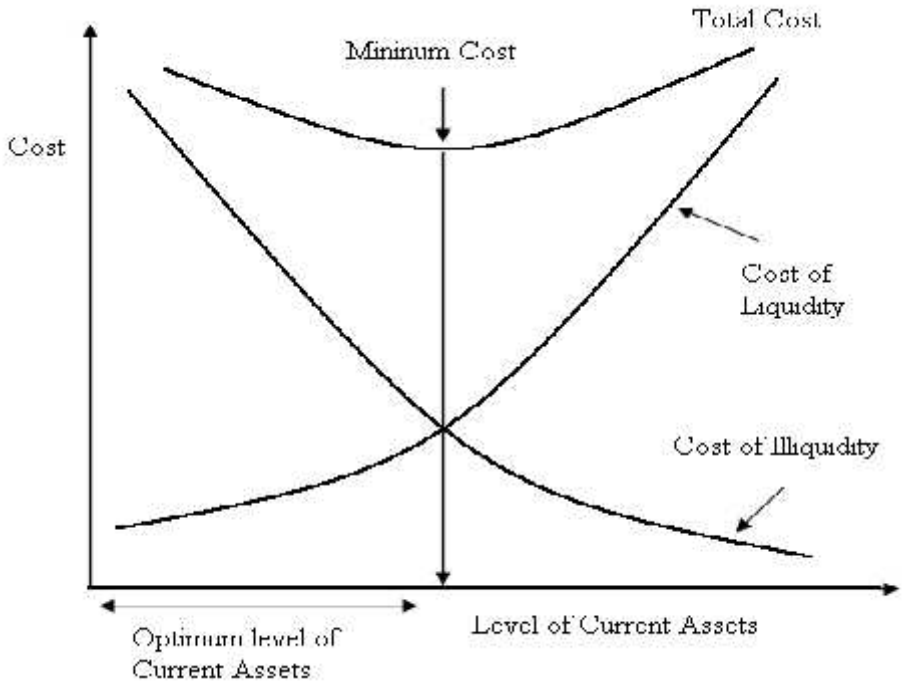
Source: **Weston, Besley And Brigham; Essentials of Management Finance.**

2.3.5. The Cost Trade-off

WC management involves decision upon the amount and composition of current asses and how they finance these assets. The relative proportion of liquid assets the lesser the risk of running out of cash of all other things are equal. Profitability, unfortunately, also will be less. The longer the composite maturity schedule of securities used to finance the firm less the risk of cash insolvency, all other things being equal. Again the profits of the firm are likely to be less. Resolution of the trade off between risk and profitability with respect to these decisions depend upon the risk preference of management (Pandey, I.M.:1994)

Figure No. 2.5

The Cost Trade-off



Source: **I.M. Pandey; Financial Management**

2.4. Classification of Working Capital

Working capital can be classified into two categories:

i. Permanent or fixed working capital

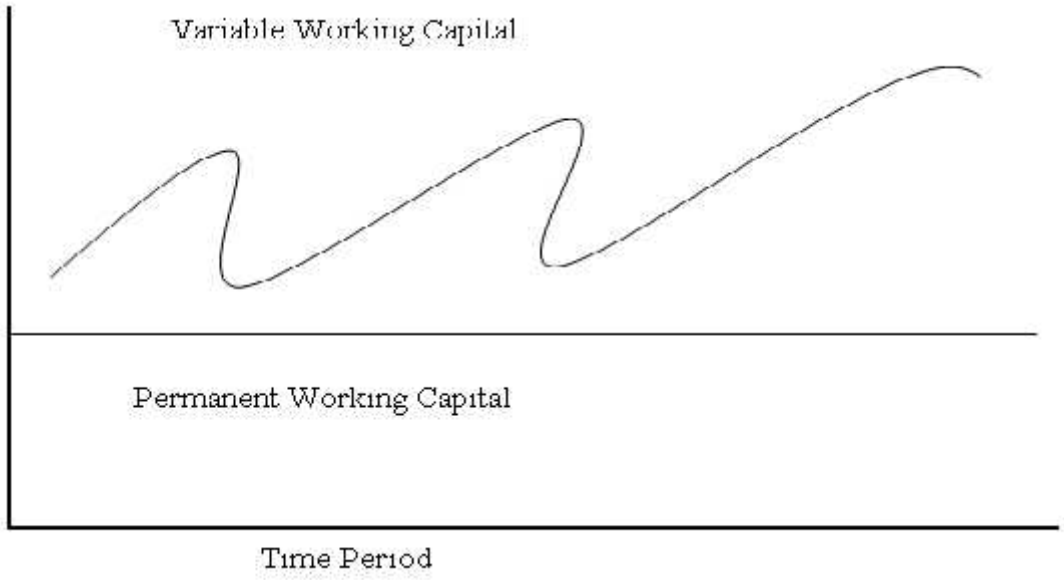
ii. Variable or temporary or fluctuating working capital

i. Permanent Working Capital: It refers to that level of current assets which is required in a continuous basis over the entire year. A manufacturing concern cannot operate regular production and sales functions in the absence of this portion of working capital.

Therefore, a manufacturing concern holds certain minimum amount of working capital to ensure uninterrupted production and sales functions. This portion of working capital is directly related to the firm's expansion of operation capacity (Srivastav, R.M.:1984)

ii. Variable working capital: It refers to that portion of working capital, which is required over permanent working capital. Therefore, this portion of working capital depends upon the nature of firm's production; relation between labor and management. Below figure shows clearly about this portion of working capital, If a firm has sound management of this portion of working capital it can easily win other competition in the cut throat of the market.

Figure No. 2.6
Types of Working Capital



Source: **I.M. Pandey; Financial Management**

2.5. Adequacy of working capital

The firm should maintain a sound working capital position. It should have adequate working capital to run its business operations. Both excessive as well as in adequate working point of view. Excessive working capital means idle funds which earn no profit for the firm. Paucity of working capital not only impairs firm's profitability but also results in production interruptions and inefficiencies.

a) It results in unnecessary accumulation in inventories. Thus, chances of inventory mishandling, waste, theft and losses increase.
b) It is and indication of defective credit policy and slack collection period. Consequently, higher incidence of bad debts results, which adversely affects profits.
c) Tendencies of accumulating inventions to make speculative profits grow. This way tend to make dividend policy liberal and difficult to cope with in future when the firm is unable to make speculative profits.

Inadequate working capital is also bad and has the following dangers:

i. It strength growth; it becomes difficult for the firm to undertake profitable projects for nor-availability of working capital funds.
ii. It becomes difficult to implement operating plans and achieve the firm's profit target.
iii. Operating in efficiencies creep in when it becomes difficult even to meet day today commitments.
iv. Fixed assets are not efficiently utilized for the lack of working capital funds. Thus, the firm's profitability would deteriorate.
v. Paucity of working capital funds renders the firm unable to avail attractive credit opportunities etc.
vi. The firm loses its reputation when it is not in position to honor it short term obligations. As a result, the firm faces credit terms.

An enlightened management should, therefore, maintain a right amount of working capital on a continuous basis. Only then, a proper functioning of the business operation will be ensured. Sound financial and statistical techniques, supported by judgment, should be used to predict the quantum of working capital needed at different time periods.

A firm's net working capital is not only important as an index of liquidity but it is also used as a measure of the firm's risk. Risk in this regard means chances of the firm being unable to meet its obligations on due date. Lender considers a positive net working as a measure of safety. Lender such as commercial banks insists that the firm should maintain a minimum net working capital position.

2.6. Need for working capital

The management of working capital has been regarded as one of the conditioning factors in the decision making issue. It is no doubt, very difficult to point out as to how much working capital is needed by a particular company, but it is very essential to analyze and find out the solution to make an efficient use of funds for minimizing the risk of loss to attain profit objective. Thus, goes the importance of working capital in operating life of a company. A successful business keeps its working capital moving rapidly. Thus it is also a lead circulating capital or a moving capital. The transmutation of a company's working capital into income and profits and back into working capital is one of the most dynamic and vital aspects of business operation. And only this movement of current assets keeps the business alive. A fully equipped factory without the supply of materials to process and without cash to pay bills and a store without stock to sell is of no use. These circumstances emphasize the importance of working capital in a business firm.

The need for working capital or current assets cannot be overemphasized. The objective of financial decision-making is to maximize the shareholder's wealth. To achieve this, it is necessary to generate sufficient profits. The extent to which profit can be earned will naturally depend upon the magnitude of the sales among other things. A successful sales programme is in order words, necessary for earning profit by any business extremes. However, sale does not convert into cash instantly; there is invariably a time log between the sales of goods and receipt of cash.

There is, therefore, a need for working capital in the form of current assets to deal with the problem arising out of the lack of immediate realization of cash against goods sold. Therefore, sufficient working capital is necessary to sustain sale activity. Technically, this is referred to as the operating or cash cycle. The operating cycle can be said to be at the near of the need for working capital. "Operating cycle is the time duration required to convert sales, inventories into cash (Pandey, I.M.:1994)

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

a) The Transactional motive: According to transactional motive, a firm holds cash and inventories to facilitate smooth production and sales operation in regular. Thus, the firm needs the working capital to meet the transaction motive.
b) The Precautionary Motive: Precautionary motive is the used to hold cash and inventories to guard against the risk of unpredictable change in demand and supply forces and other factors such as strike, failure of important customer, unexpected slow down in collection of account receivable, cancellation of some order for goods and some other unexpected emergency. Thus, the firm needs the working capital to meet any contingencies in future.
c) The Speculative Motive: Speculative motive refers to the desire of a firm to take advantages of following opportunities:
    i. Opportunities of profit making investment
    ii. Opportunities of purchasing raw materials at a reduced price or payment of immediate cash.
    iii. Make purchase at favorable price etc.

Thus the firms need the working capital to meet the above three motives.

2.7. Operating Cycle

Current assets are needed because sales do not convert into cash instinctually. There is always an operating cycle involved in the conversion of sales into cash there is different between current and fixed assets in terms of their liquidity. A firm requires many years to recover the initial investment in current asset such as invent ones and book debt (actually receivables) is realized during the firms operating cycle, which is usually less the then a year (Mayer, R.C. et al.:1984)

Operating cycle is the time duration required into inventories into cash. The operating cycle of a manufacturing company involved there phases.

- Acquisition of resource such as raw material, labor, power and fuel etc.
- Manufacture of the product which includes conversion of raw material into work-in-progress into finished goods.
- Sales of the product either for cash or on credit, credit sales, credit book, debit for collection.

These phases affect cash flow, which most of the time, are neither synchronized nor certain. They are not synchronized because cash outflows usually occur before cash inflows. They are not certain because sales and collections, which give rise to cash inflows, are difficult to forecast accurately. Cash outflows, on the other are relatively certain. The firm is therefore required to invest in current assets for a smooth, uninterrupted functioning it needs to maintain liquidity to purchase raw materials and pay expenses such as wages and salaries, other manufacturing administrative and selling expenses and taxes as there is hardly a matching between cash in also held to meet any future exigencies strolls of raw material and more - in process are wept to we sure smooth production and to guard against non-availability of raw material and other components. The firm holds strode of finished goods to meet the demands of customers on continuous basis and sudden demand from some

customers. Boole debts are created because goods are sold on credit for marketing and competitive resource. Thus a firm market adequate investments and bole debts for a smooth and uninterrupted and bole debts for a smooth and interrupted production and sale.

The length of the operating cycle of a manufacturing firm is the sum of (I) inventory conversion period (ICP) and (ii) book debts conversion period (BDCP). The inventory conversion period is the total time needed for producing and selling the product. Typically, it includes (a) raw material conversion period (RMCP) (b) work -in-process conversion (WIRCP) and (c) finished goods conversion period (FGCP). The bole debts conversion period is the time required to collected outstanding amount from customer. The total of inventory conversion period and bole debts conversion period is somatic referred to as gross operating cycle (GOC)

In practical, a firm may acquire resource on credit and temporarily postponed payment of certain expenses. Payables that the firm can defer are spontaneous sources of capital to finance, investment the length of time the firm is able to defer payment on various resource purchases. The difference between (gross) operating cycle and payable deferral period is not operating cycle (NCO). If depreciation is excluded from expenses in the computation operating cycle, the net operating cycle also represent cash conversion cycle. It is net time interval between cash collection from sale of the product and cash payment for resource acquired by the firm. It also represent time interval over which additional funds, called working capital, Should be obtained in order to carry out the firm’s operations. The firm has to negotiate working capital from source such as commercial bank. The negotiated sources of working capital financing are called non-spontaneous source. If net operating cycle of a firm increases, it means further need for negotiated working capital.

2.8 Review of Research Studies

It is also important to review the relevant research studies relating to working capital to add input in this study. In this regard the review has been arranged in two ways.

i Review of international studies

ii Review of local studies

2.8.1 Review of International Studies

It makes more relevant and to add input in this study some international studies are also reviewed below.

As it is not possible to estimate working capital accurately, the firm must decide about levels of current assets to be carried. The current assets holding of the firm will depend upon the working capital policy. It may follow a conservative or on aggressive policy. These policies have different risk return implications (Ven Horne, James, C.:1970). The financial manager should determine the optimum level of current assets so that the wealth of share holder will be maximized. In fact, optimum level of each type of current assets should be fixed (Walker, E.W.:1946). To find out corporate bankruptcy Zeta made was developed by Altman and other (Altman, Robert G. Haldman, P Narayanan:1997). The authors extended the Z core model to include, among other things, the capitalization of leases and they updated it's application. A sample of 53 among bankrupt firms and 58 non-bankrupt firms were employed. Manufacturing and for the first time any study relating companies were included. On the basis of discriminatory ability, 27 original variables were reduced to 7: the return on assets ratio, the stability of earning, the current ratio and the size of total assets using the linear discriminate model, the authors were successful in predicating up to 5 years period to failure successful classification ranged from 96 percent 1 year before failure to 70 percent and 5 years before 10% failure, or better performance than the z core model. Both quadratic and linear model were tested, with the linear function winning out.

2.8.2 Review of Nepalese studies:

Besides reviewing of international studies some local studies are also reviewed in this study such as journal/articles, various published articles by different management exports relating to working capital managements.

Prof. Dr. Manohar Krishna Shrestha, in his study "Working capital management in Public Enterprise," States that manager often lacks basic knowledge of working capital and it's overall impact on the operative efficiency and financial viability of public enterprises. The study has been based on sample of ten public enterprise i.e. Birgung Sugar factory. Janakapur Cigarette factory, Roghupati Jute Mills, Development Corporation, National Trading Ltd, Royal Drugs Ltd, National Construction Company of Nepal, Harisiddhi Bride and Tile Factory Nepal, Cheery Ghee Industry Ltd, and Chandesowori Textile Factory Ltd. The study has pointed at certain policy flows such as deficient financial planning, neglect of working capital management deviation between liquidity and turnover etc. He has suggested some measure for their effective funds, determination of management information system and determination of sound combination of short-term and long term source to finance working capital requirements.

Prof. Dr. Manahar Krishna Shrestha found that receivable turnover calculated varied, from lowest record of 0.09 times 1 to the highest level of 25.7 times and was less than favorable in selected public enterprises (PEs) of Nepal. And those revealing favorable turnover have still faced problem of managing account receivables. He pointed that EPs did not record a cautions policy to improve collection that would have helped a lot in raising the receivable turnover. The average collection period recorded a variation from a minimum 14 days to the maximum of 4027 days. In the same way the again schedule of PEs has uniform patterns and the outstanding receivable in many instances were very old even exceeding ten years or so forth. It was grouped under above three years old

receivable. In the selected enterprises the ratio of receivable CAs varied from a minimum of 0.15 times 1 to maximum 0.9 times 1. He also found that most of the EPs has larger share of receivable to CAs. In most of them extension of additional relaxed credit was a usual phenomenon and they did not have larger amount of receivable outstanding. They had not taken seriously the taste to speed up the collection of long outstanding receivable by devising suitable credit monitoring policy. The study thus concluded that determining the desired investment in account receivable was least considered in most of the EPs.

A comparative study of "Problems in Management of Working Capital in Nepalese Enterprise", has been conducted by Dr. K. Acharya. He has stated that in Nepalese Enterprises the management of money and managers are found over conscious about receiving of money rather than it's efficient utilization. Thus, the existing problems in the finance are mostly directed towards the management o WC rather than in any area. In his number of studies it has been repeatedly found that the gross in efficiency exist in the operation of public Enterprises. He has stressed on high cost of production which have left these EPs in less secured position. Thus, he farther added the cost reduction is the only possible measure for smooth operation and long-term existence of the public enterprises in Nepal.

The cost reduction program is highly associated with the optimization of working capital. He has focused some operational and organizational problems of Nepalese PEs not following traditional worm 2:1 between CAs and CLs , low rate of inventory turnover, change in WC in relation to fixed capital has very low impacts over the profitability not following conventional of debt equity as 1:1; than transmutation of capital employed into sales management information, ineffective use of performance evaluation tools and techniques and WC management has never been considered a managerial job.

Similarly, he has suggested that PEs finance staff must be acquainted with the modern scientific tools used for the presentation and analysis of data. He further suggests avoiding the system of crisis decision, which prevailed frequently in their operation. They have to follow system and method for decision making. Lastly he has given emphasis to optimize its level of investment at a point of time. Neither over nor under investment in WCs is desired by the management of enterprises. Both of these situations will erode the efficiency of the concern.

His study was descriptive in nature. He has not used any data and research tools. The study has covered Nepalese PEs (but not mentioned the name of PEs). Each selected enterprises does not represent the entire industry in which it fails. Prof. Dr. Radhe Shyam Pradhan (1986), in his study aims at examining the various aspects of management of WC is selected manufacturing PEs of Nepal. The Specific objectives under taken in his study are:

i) To conduct risk return analysis of liquidity of working capital position.
ii) To assets the short-term financial liquidity position of the enterprises.
iii) To asses the structure and utilization of WC and
iv) To estimate the transactions demand function of working capital and its various.

His study has mentioned the following findings:

i) It has found that most of the selected enterprises have been activating a trade of between risks and return there by following neither an aggressive nor a conservative approach.
ii) It has showed a poor liquidity of most of the enterprises. This poor liquidity position has been noticed as the enterprises have either negative cash flows or negative earnings before tax or they have excessive net current debts which cannot be paid with in a year.

iii) The Nepalese manufacturing PEs have on a average half of their total assets in the form of CAs, of all the different components of CAs the share of inventories in total assets, on an average, is largest followed by receivable and cash in most of the selected enterprises.

iv) The economics of scale have been highest for inventories followed by cash and gross WC, receivable and Net WC.

V) The regression results also shown that the level of WC and its components and enterprises desire to hold depend not on sales but on holding costs also.

His study is concerned with interrelationships that exist between managing CAs and CLs. The study manages to focus on Networking Capital Concept. The study has employed ratio analysis discriminate analysis and econometric models for its analysis.

This study does not cover all the PEs in manufacturing sector. Each selected enterprises does not represent the entire industry in which it falls. The manufacturing PEs selected for the study differs in its working and nature. These studies show that WC management is the weakest or neglected part of financial management in most of the PEs in Neal. It seems that Nepalese firms are fallowing conservative approach in financing as well as investing working capital.

Another article composed by Prof. Manohar K. Shrestha has considered twelve selected PEs. In this article, he has described the conceptual ingredients concerning the working capital and types of working capital. From the analysis, he found that the liquidity positions of the selected PEs are differ widely in view of the differences in their nature of business. There were also above normal acid test ratios. While analyzing, the turnover of these selected PEs, had normal inventory turnover, the other three had not been satisfactorily maintained and in some of them, inventory was formed to have exceeded sales. The collection period

relation to the selected PEs exhibited mashed difference ranging from 32 days to 755 days. The profitability position analyzed through return on net working capital was positive for 8 PEs, negative for 2 PEs and the rest 2 PEs had not any return since they were in establishment phase.

A study was conducted by the management consultant and company in the performance on PEs of Nepal. In the study it was concluded that the assets management in general and current assets management in general and current assets management in particular, was the weakest point in Nepalese PEs. It has not received due and serious attention as yet. It has pointed out that financial performance of the PEs was poor and indicative mismanagement of the re*source*. The report also pointed out that because of the lack of operational objectives, application of long range planning, use of modern management tools, capital budgeting and efforts towards cost control had not been made so far. The study, thus, there is poor CA management and mismanagement of resource in PEs of Nepal there by causing poor financial performance.

A comparison of financial performance of MPEs and private manufacturing enterprises was made by Rajendra Prasad Sharma. In 1985 all together six textile industries, three from each public and private sector, were selected for the study. In the study it was concluded that the each public and private sector, although fluctuation has positive WC. There was very high liquidity position of public sector industries has adverse situation. Among each there was encouraging use of each and bank. Though inventory covered the largest share (morethan 60%) of the total assets in the both sectors. The inventory turnover in public sectors as while as debtor's turnover was more or less similar in both sectors. He also found that trade credit and other internal provision though fluctuating in nature was the mach source of financing WC in both sectors. And majority of private sector industries had relatively better use of fixed assets than other industries; moreover, the earning power of public sector was quite encouraging. He also printed out that of private sector was quite

encouraging. He also printed out that both sectors did not seem to have higher any sort of dividend policy nor did they pay any soot dividend. Thus, there was negligible direct contribution of textile industries in the revenue generation of government during the period under study.

2.9 Review of Dissertations

Besides review of available books and research studies a number of studies have been made by students of MBS and MBA reality to working capital management in different PEs of Nepal. This selection, hence, will review some of those dissertations.

Utther kumar Mahato, in his study "Working Capital Management of Nepal Lever Limited (NLL), 2006." This study has covered the span of five years, Fiscal Year 2000/01 to 2004/05. The objectives of the study were to analysis the liquidity compaction of WC, assets utilization and profitability of NLL, to examine the relationship between liquidity and profitability of NLL, and to know whether the NLL has maintained optimum level of WC or not. In his study, the methodologies used are ratio analysis test of hypothesis and correlation analysis and the major findings of his study were as given below:-

a) The major components of current assets in NLL are inventories, sundry debtors, cash and bank balance and misc. current assets. During the study period, inventing holds the major providing in NLL. It was found that out of total current assets, inventory held the largest portion followed by misc. CA, cash and bank balance and sundry debtors respecting.
b) The current ration of the company ranged in between 1.32 to 2.59 times during the study period in fluctuation trend. The company was unable to maintain its current ratio of 2:1 in average of the study period.
c) The proportion of current assets to net sales varied from 23.46% to 47.39% during the study period i.e. the current assets investment

policy of NLL has been titled towards the related policy. Therefore, it has not proper utilization of CA.

d) The major component of CL in NLL is loan and advance, sundry creditors and misc. CL and provision. During the study it was found that, sundry creditors hold the largest proportion and the loan and advance holds the lowest proportion.
e) The average percent of loan and advances sundry creditors and misc. CL and provision are 9.43% , 49.85% and 38.921% respective.
f) Profitability is one of the measures of overall efficiency of the management. The grass profit margin of NLL is in decreasing trend of the study period except of FY 2003/04. It has highest in FY 2002/03 and 2003/04 and rest of all FY is less.

Thus, NLL should have the proper plan to improve its profitability in future is all so recommended that the volume of sales should be increased and the problem of current assets should be maintained according to its sales volume.

Another study "working capital management of the bottlers Nepal Balaju ltd., 2054/056." by R.M. Khatiwada has focused his study on the appropriateness of investment in current assets to its total assets liquidity position management of WC needs and utilization of current assets in BNBL. And the major finding of this study area as follow:-

i) The company has used the conservative financing polices, where the WC analyzed by taking the position of the current assets. The CAs consists of the inventories, sundry Delores, cash and bank balances, loan land advances & other assets. The company however following conservative WC policy yet, there is positive return as well as positive turnover on net WC.
ii) The company has used maximum amount of the cash and bank balance in the p/c 1997/98 during the study period. The investment pattern with respect to CAs to TAs slows the average figure of

6.518 and 2.616 respectively. The lower ratio shows the better management and vice versa.

iii) The company has used greater problem of CAs than CLs in every year ie. from the study period of the thesis writing. The average percentage of net profit is 15.872. Similarly, the company has earned less net profit then the average net profit.

iv) During the study period the company's current ratio is unable to meet the obligation of 2:1 which is just 1.5:1.Which is not standard enough.

Arjun Lal Joshi, in his study seeks to have true insight into the working capital management in Biratnagar Jute Mill. The study has concerned with the management of CAs and covers five years period data (2036/37 to 2040/41). The study has embodied various financial ratios for measuring Biratnagar Jute Mills financial viability. The study is based on secondary data with opinion survey method and limited to the concept of WC. The study has indicated mismanagement of inventory, no proper policy of cash holding and heavy dependence on short term bank credit. He has recommended for the effective WC management program, following productive investment approach preparing effective sales plan and exhaustive research program using short term bank credit up to certain reasonable limit, maintaining optimum cash balance and making proper utilization of accumulated collection debts. The scope of study is to identify the loopholes and managerial deficiencies of BJM on the part of WC management. He has used ratio analysis to study but not hypothesis and correlation coefficient to verify the significance and relation between WC components.

Yam Prasad Sharma in his study of Working Capital Management of manufacturing companies of Nepal (listed on Nepal Stock Exchange Ltd.) has tried to analyze the management of WC of manufacturing industries. The objectives of this study areas are as follows: (i) study of WC management and policies adopted by these manufacturing industries (ii) empirical testing of variables affecting WC management such as current assets, sales, current liabilities, net profit, total assets, cost of good sold,

operation ratio. On the basis of this study he has analyzed turnover position, liquidity, and profitability. It also aims to evaluate the relationship between variables. For this, researcher has set proper research methodology, use of quantitative method, statistical method and qualitative method. From this he has found that overall profitability of listed PEs is negative. He has analyzed that Nepalese PEs is suffering from sickness and they must determine the appropriate financing mix. These manufacturing companies undertake measure like, identification of needed funds, regular cheeks, development of marketing information system, the attitude towards risk and profit, determination of right combination of short-term and long-term source of funds to finance WC needs. He has further recommended that appropriate combination of investment in CAs, minimum operating cost, preparing effective sales plan, specific WC policy, improving liquidity position, speedy cash conservation period by improving the financial performance are the measure ways to make healthy efficient management of WC of manufacturing PEs in Nepal.

Another recent case study done by Dependra Raj Sharma (1999), A study on Working Capital Management of Nepal Battery Company Ltd., has found that inventory and receivable should be proper. The non-moving and obsolete items should be discarded to avoid unnecessary blockage up. Inventory and receivables management should be integrated with credit policy. He has suggested to employs effective inventory control techniques. It is better to adopt appropriate WC policy rather than conservative WC policy, so that it can improve its profitability in short run as well as long run. Company should be liberal in its credit policy.

CHAPTER-THREE

RESEARCH METHODOLOGY

3.1 Introduction:

Research is a systematic and organized effort to investigate a specific problem that needs a solution. In simple, research is a process for searching knowledge and methodology is concerned with the method which is used for research. As a whole, research methodology is a way to systematically solve the problem. It may be understood as a science of studying how research is done scientifically.

This study is conducted on the basis of secondary data. The proper analysis of this study can be meaningful only on the right choice of research tools that helps in coming meaningful conclusion. The data is analyzed with the help of both financial and statistical tools. In this Chapter, we study the various steps that are generally adopted by a researcher in studying his research problem along with the logic behind them. The main objectives of this study are to analyze the working capital management of Sumy Distillery Ltd. In this Chapter, the focus has been made on research design, nature and source of data, collection of data, its processing and tools used.

3.2 Research Design:

In common parlance research design is the conceptual structure within which the research is performed. A research design is the arrangement of conditions for collection and analysis of data is a manner that aims to compare relevance to the research purpose with economy in procedure. Research design constitutes the blue print for collection, measurement and analysis of data. This study continues to evaluate managerial

efficiencies and performance to use research design based on description and analytical study. This study attempts to make composition and establish the relationship between two or more variables.

3.3 Nature and Sources of Data:

This study is mainly based on the secondary data, but to make research more informative, challenging and qualitative, primary information of Sumy Distillery Ltd. executives are also analyzed. For this, discussion and interview with the key personal and employment of the company has been done. Not only this, other information has been collected from internet, published and unpublished materials. The secondary data has been collected from the annual report of SDL. In this, data of five different fiscal years has been taken.

3.4. Data Processing Procedures:

Since the data used in this study are mainly based on the secondary in nature. These secondary data has been collected from the annual report of SDL. The annual report includes balance sheet, profit and loss statement, and financial statement. All the available data has been grouped in tables and charts according to their nature and calculated according to the tools.

3.5 Presentation and Analysis of Data:

The collected data are systematically grouped in table and charts according to their nature, so that it would be easily calculated. Various financial tools and statistical tools are used for calculating the ratios, correlation, co-efficient, probable error, etc. of the collected data.

3.6 Tools of Data Analysis:

Generally, there are two methods for data analysis, they are: Quantitative and Qualitative method. But in this study, two types of analytical tools are used. They are: (i) Financial Tools and (ii) Statistical Tools.

3.6.1 Financial Tools:

The ratio analysis is the main tool for analyzing data under financial tools which help to interpret the financial statement of a firm to know its strength and weakness as well as its historical performance so that the current financial condition can be determined. This also helps to conclude how far financial expression is meaningful and to grab the suitable result. Financial ratio analysis is most useful tool which helps us to understand the financial condition and performance of the firm.

In order to make rational decisions in keeping with the objectives of the company and its financial viability, an analysis is undertaken by every interested party such as creditors, investors and also by the company itself. Such, analyzation varies according to the specific interests of party involved; this analysis is called financial analysis. There are following financial ratios, which can be analyzed to determine financial position of an organization.

3.6.1.1 Composition of Working Capital:

It is studied by analyzing the following ratios:

i) Current Assets to Total Assets (CATA):

The ratio of current assets to total assets indicates what percentages of the company's total assets are invested in the form of current assets. It is calculated as:

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

As the ratio increases, the risk and profitability of the company would decrease. The low ratio indicates the small amount of working capital.

ii) Current Assets to Fixed Assets (CAFA):

This ratio shows the relationship between the current assets and fixed assets and can be calculated as:

$$\text{CAFA} = \frac{\text{Current Assets}}{\text{Fixed Assets}}$$

If the ratio is large, it indicates the sound working capital.

iii) Ratio of Cash and Bank Balance to Current Assets (CBCA):

It is calculated as:

$$\text{CBSA} = \frac{\text{Cash and Bank Balance}}{\text{Current Assets}}$$

The small ratio indicates the sound management and large ratio vice-versa. The working capital is directly affected by it.

iv) Cash and Bank Balance to Total Assets (CBTA):

This ratio is calculated as under and indicates what percentage of total assets is invested in cash and bank balance.

$$\text{CBTA} = \frac{\text{Cash and Bank Balance}}{\text{Total Assets}}$$

As the ratio increases the risk and profitability would decrease and if the ratio is greater the working capital would be greater.

v) Inventories to Total Assets (ITA):

This ratio can be calculated as:

$$\text{ITA} = \frac{\text{Inventory}}{\text{Total Assets}}$$

This ratio indicates the percentage of total assets invested in form of invest in the form of inventories. Inventory is a part of working capital so, if the percentage increased the working capital automatically increased. The increase also indicates liberal inventory policy or blocking of materials in stock.

vi) Ratio of Inventory to Current Assets (ICA):

This ratio implies the percentage of current assets in form of inventory and derived as:

$$\text{ICA} = \frac{\text{Inventory}}{\text{Current Assets}}$$

The increase in the ratio is an indication of liberal inventory policy followed by company. If ratio increases or percentage increases means greater part is occupied by inventory.

vii) Ratio of Receivables to Total Assets (RTA):

This ratio can be calculated as:

$$\text{RTA} = \frac{\text{Receivables}}{\text{Total Assets}}$$

This ratio indicates the percentage of total assets invested in the form of receivables. The increase in the ratio indicates the liberal credit policy followed by the company.

viii) Ratio of Receivables to Current Assets (RCA):

This ratio indicates the share of receivables on current assets and is defined as:

$$\text{RCA} = \frac{\text{Receivables}}{\text{Current Assets}}$$

The low percentage indicates the greater working capital and vice-versa. If the percentage is greater, the firm is unable to collect receivables promptly.

3.6.1.2 Liquidity Ratio:

The liquidity ratio is used to measure the firm's ability to meet the short-term obligation and reflect the short-term solvency of the company. There are as follows:

i) Current Ratio (CR):

Current ratio is the relationship of current assets and current liabilities. The current assets are those assets which can be converted into cash within short period. Current assets normally includes inventories, cash in hand, cash in bank, bills receivable, account receivable, marketable securities, prepaid expenses and loan and advance whereas current liabilities consists of bills payable, account payable, outstanding expenses, cash credit, income tax payable, bank overdraft, current ratio is calculated by dividing the total current assets by total of current liabilities. Thus,

$$\text{Current Ratio (CR)} = \frac{\text{Current Assets (CA)}}{\text{Current Liabilities (CL)}}$$

It indicates the firm's current position, which should be sufficient to cover the current liabilities used by the firm. Higher current ratio shows better liquidity position. For many types of business, 2:1 is considered to be an adequate ratio. If the CR of a firm is less than 2:1, the solvency position of the firm is not good. The cash may not be available to pay current liabilities. Similarly, if the current ratio is more than 2:1, the company may have excessive investment assets that do not produce a return.

ii) Quick or Acid-test or Liquid Ratio (QR):

Quick ratio is calculated by dividing the quick assets by current liabilities. Not all current assets are equally liquid. Inventory and prepaid expenses cannot be termed to be a liquid assets. This asset can be converted into cash immediately as per requirement of company. Therefore, liquid assets mean current assets after deducting inventory.

$$\text{Quick Ratio (QR)} = \frac{\text{Current Assets - Inventory}}{\text{Current Liabilities}}$$

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

Generally, the quick ratio of 1:1 of company is considered to be satisfactory.

iii) Cash Ratio:

Cash ratio is calculated by dividing cash and marketable securities by current liabilities.

$$\text{Cash Ratio} = \frac{\text{Cash and Marketable Security}}{\text{Current Liabilities}}$$

iv) Working Capital to Current Assets Ratio:

This ratio is calculated by dividing net working capital by current assets. Where, net working capital is current assets less current liabilities.

$$\text{WC to CA Ratio} = \frac{\text{Net WC}}{\text{CA}}$$

3.6.1.3 Profitability Ratio:

The main objective of the company is to earn maximum profit. It is necessary to have enough profit to meet different obligation of the firm. The position of the profitability of the company is analyzed with the help of following ratio:

i) Gross Profit Margin (GPM):

The gross profit margin ratio expresses the relationship between gross profit and sales. Gross profit is obtained by deducting cost of good sold from net sales.

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

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

ii) Net Profit Margin (NPM):

Net profit margin is calculated by dividing net profit by sales. Net profit is obtained after deducting operating expenses and income tax from gross profit.

$$\text{NPM} = \frac{\text{Net Profit after Tax}}{\text{Sales}} \times 100$$

This ratio is the overall measurement of the company's ability to earn net profit. A higher ratio is an indication of the higher overall efficiency of the business and better utilization of total resources. Poor financial planning and low efficiency is the indication of lower ratio.

iii) Operating Ratio (OR):

The operating ratio is an important ratio that explains the changes in the net profit margin ratio. It shows the relationship between operating expenses and sales. It is calculated by dividing the total operating expenses by sales.

$$\text{OR} = \frac{\text{Cost of Good Sold} + \text{Operating Expenses}}{\text{Sales}} \times 100$$

Higher ratio indicates the lower efficiency of the company and vice-versa. Higher operation ratio means small amount of operating income to meet interest, dividends, etc.

iv) Return on Assets (ROA):

Return on assets is expressed as the relationship between net profit after taxes plus interest and total assets. It measures the profitability of total fund of investment of the firm. But it is not sufficient for the analysis as profitability of different sources of fund for financing the total assets. It is computed by dividing net profit after tax by total assets.

$$\text{ROA} = \frac{\text{Net Profit after Tax}}{\text{Total Assets}} \times 100$$

v) Return on Net Worth (RONW):

RONW is computed by dividing net profit after tax by net worth. It is also known as capital employed.

$$\text{RONW} = \frac{\text{Net Profit after Tax}}{\text{Net Worth}} \times 100$$

It indicates the return to the shareholders, how well the firm has used the resources of the owners. It judges whether the firm has earned of satisfactory return for its shareholders or not. Higher the ratio higher the return to the shareholder will be and vice-versa.

vi) Return on Working Capital (ROWC):

It is computed by dividing net profit after tax by current assets working capital. It measures the profit width respect to current assets.

$$\text{ROWC} = \frac{\text{Net Profit after Tax}}{\text{Current Assets}} \times 100$$

Higher the ratio higher the utilization of current assets to earn profit and vice-versa.

3.6.1.4 Turnover Ratio:

Turnover ratio indicates the relationship between sales and assets. It is also known as activity, efficiency or assets utilization ratio. This ratio shows efficiency of asset management, i.e. how efficient the asset management is? It means how efficiently and rapidly firm can convert its assets into sales. The greater turnover ratio indicates higher utilization of assets. Thus, it measures the degrees of effectiveness in use of resources or fund by a firm. There are following turnover ratios that can be calculated.

i) Working Capital Turnover (WCT):

It is computed by dividing sales by net working capital, i.e. different of current assets and current liabilities.

$$\text{WCT} = \frac{\text{Sales}}{\text{Net Working Capital}}$$

More ratio shows the utilization of net working capital and less ratio vice-versa.

ii) Inventory Turnover Ratio (ITR):

ITR measures how quickly inventory can be converted into sales. It is the test of efficient inventory management. It is computed by dividing sales by inventory. It is also computed by dividing cost of good sold by average inventory.

$$\text{ITR} = \frac{\text{Sales}}{\text{Inventory}}$$

Or, $$\text{ITR} = \frac{\text{Cost of Goods Sold (COGS)}}{\text{Average Inventory}}$$

This ratio shows the number of time inventory is replaced during the year. Higher inventory turnover indicates the good inventory management and lower turnover suggests the management should manage its inventory properly.

iii) Receivables Turnover Ratio (A/RTR):

RTR shows the relationship between credit sales and account receivables of the company. It is also known as debtor turnover ratio. It indicates the velocity of debt collection of the firm.

$$\text{A/RTR} = \frac{\text{Credit Sales}}{\text{Account Receivables}}$$

It indicates the number of times the receivables are turned over during the year. It gives the general measure of the productivity of the receivables investment. The higher ratio indicates the higher amount of working capital and lower ratio vice-versa.

For the complimentary of this ratio, there is ratio called average collection period (ACP), which indicates the number of days, it takes on an average to collect amount receivables. It is computed by dividing days in a year by receivables turnover. ACP is also known as Day Sales Outstanding (DSO).

$$\text{ACP} = \frac{\text{Days in a Year}}{\text{Receivables Turnover}}$$

Or, $$\text{ACP} = \frac{\text{Receivables}}{\text{Average Sales per Day}} = \frac{\text{Receivables} \times 365}{\text{Sales}}$$

iv) Cash and Bank Balance Turnover Ratio:

It shows the effectiveness of management on management in case of application of cash in ordinary course of business. It measures how rapidly cash can be converted into sales in the company. It is calculated by dividing sales by cash and bank balance.

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

The higher ratio indicates, cash is rapidly converted in sales and good cash management whereas low ratio indicates slow, weak cash management.

3.6.1.5 Leverage Ratio:

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

i) Short-term Financing (STF) to Long-term Financing (LTF) Ratio:

This ratio is computed by dividing short-term financing amount by the long-term financing. Fund raised from short-term financing can be used to increase current asset, to meet daily expenses.

$$\text{Ratio} = \frac{\text{STF}}{\text{LTF}}$$

ii) Short-term Financing (STF) to Total Financing (TF) Ratio:

This ratio shows the proportion of short-term financing out of total financing amount. This ratio is computed by dividing short-term financing by total financing. If a firm uses more short-term financing then an aggressive policy is said to be followed by the firm.

$$\text{Ratio} = \frac{\text{STF}}{\text{TF}}$$

3.6.2 Statistical Tools:

The statistical tools are essential to measure the relationship of two or more variables. The statistical tools are as follows:

3.6.2.1 Coefficient of Correlation or Covariance Method:

Coefficient of correlation is defined as the association between the dependent variables and independent variables. It is a method of determining the relationship between these two variables. If the two variables are so related the change in the value of dependent variable,

then it is said to have correlation coefficient. For this, the method of Karl Pearson's coefficient of correlation is used:

$$r = \frac{\sum dxdy - \frac{\sum dx \sum dy}{N}}{\sqrt{\left[\sum dx^2 - \frac{(\sum dx)^2}{N}\right]\left[\sum dy^2 - \frac{(\sum dy)^2}{N}\right]}}$$

Where,

x = The First Variable,

y = The Second Variable,

N = Number of Years (Observations),

dx = Deviation of first variable from assumed mean,

dy = Deviation of second variable from assumed mean.

Assumption:

i) If r = 0, there is no relationship between the variables.

ii) If r < 0, there is negative relationship between the variables.

iii) If r > 0, there is positive relationship between the variables.

iv) If r = +1, the relationship is perfectly positive.

v) If r = -1, the relationship is perfectly negative.

3.6.2.2 Probable Error (P.E.):

P.E. of r is very useful in interpreting the value of r and is worked out as under for Karl Pearson's Coefficient of Correlation.

$$P.E. = \frac{0.6745 \times (1 - r^2)}{\sqrt{N}}$$

If r < P.E., it is not all significant, no evidence of correlation between variables.

If r > P.E., there is no correlation, but not significant.

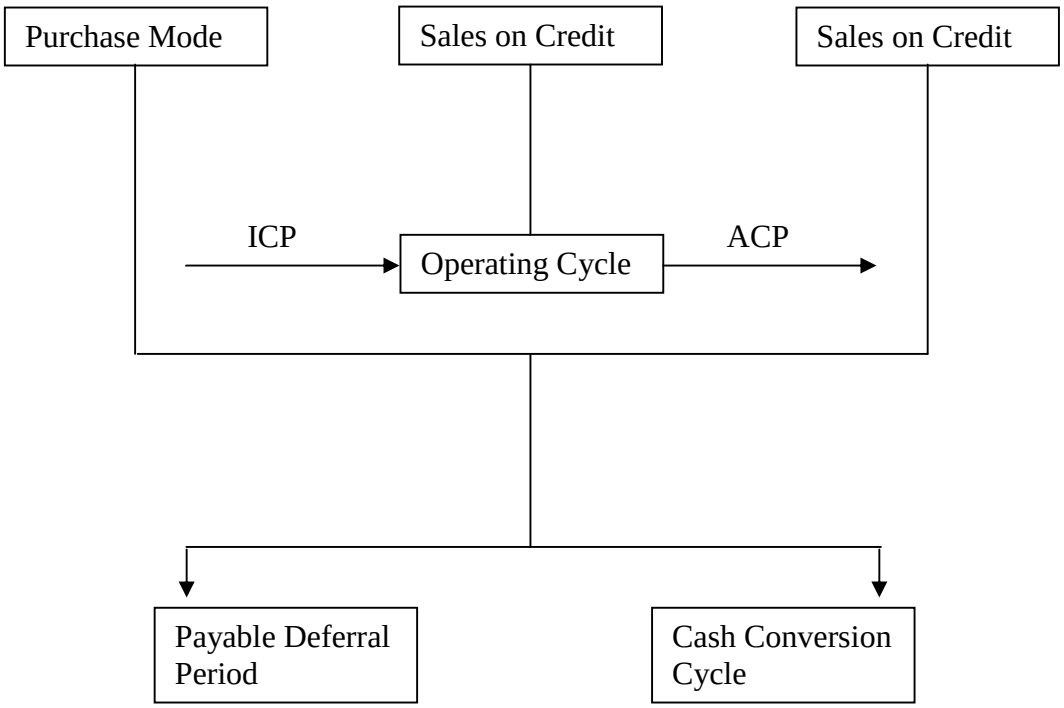
If r > 6×P.E. and greater than ±0.5, it is considered significant at all.

3.6.2.3 Cash Conversion Cycle Model:

A cash conversion cycle reflects the net time interval in days between actual cash expenditures of the firm on productive resources and ultimate recovery of cash.

The following figure shows the cash conversion cycle for a firm.

Figure No. 3.1
Operating Cycle of Manufacturing Firm



As shown in above, once the purchase of raw material is made, the inventory conversion period determines the numbers of days it takes to produce and sell the product. The average collection period determines the average numbers of days it takes to collect credit sales. The operating cycle this measures the number of days from purchase as to when cash is received.

$$\text{Operating Cycle (OC)} = \text{Inventory Conversion Period (ICP)} + \text{Receivable Conversion Peiod (RCP)}$$

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

$$\text{Cash Conversion Cycle (CCC)} = \text{Operating Cycle (OC)} - \text{Payable Deferral Peiod (PDP)}$$

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

i) Inventory Conversion Period (ICP):

ICP indicates the efficiency of the firm in selling its product. It is calculated by dividing the number of days in a year by inventory turnover. ICP is one of the important financial tools. It is a time period which shows how long the raw materials convert into finished goods and how much rapidly the inventory is turned into receivable through sales.

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

$$\text{ICP} = \frac{365\ \text{Days}}{\text{Inventory Turnover}}$$

Or, $$\text{ICP} = \frac{\text{Average Inventory}}{\text{Cost of Goods Sold}} \times 365$$

ii) Receivable Conversion Period (RCP):

RCP indicates the number of day's debtor turnover into cash. Its analysis determines the collect ability of debtors and thus, the efficiency of collection effect in ascertaining the firm's comparative strength and advantage relative to its credit policy. Receivables

turnover can be calculated by dividing total sales of the year ended balance of debtors and receivable conversion period is calculated by dividing the number of days in a year (i.e. 365 Days) by receivable turnover.

$$\text{Receivable Turnoever} = \frac{\text{Sales}}{\text{Debtors}}$$

$$\text{RCP} = \frac{365\,\text{Days}}{\text{Receivable Turnover}}$$

Or, $$\text{RCP} = \frac{\text{Debts or Receivables}}{\text{Sales}} \times 365$$

iii) Payable Conversion Period (PCP):

PCP indicates the number of day creditors turnover each year. It is calculated by dividing the sum of account payables and outstanding expenses by the sum of cost of goods sold and general expenses and multiplies by the number of days in a year.

$$\text{PCP} = \frac{\text{Account Payable} + \text{Outstanding Expenses}}{\text{Cost of Goods Sold} + \text{General Expenses}} \times 365$$

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF DATA

4.1 Introduction:

This is the main chapter of the study. This is the most important sensitive part of this study because it consists of analysis and presentation of empirical data focus in how far the S.D. Ltd. is position to manage their working capital. In order to examine the working capital management of this firm, the necessary financial facts and figures as well as descriptive information has been gathered through the financial statement (annual). Questionnaire is also used to obtain further qualitative information. These collected data has been calculated using various financial and statistical tools. The major variables are current assets, current liabilities, quick assets, sales, cost of good sold, long-term debt etc. This chapter will present the analysis of various components of working capital of this firm, which includes size, structure and utilization of current assets, liquidity and profitability position, relation between current assets and total assets as well as fixed assets, sources and application of fund and management of current assets.

4.2 Position of Current Assets:

As current assets are the main parts which are required to run day to day business activities and total of this is known as working capital as the gross concept. Its position has become needful to study. Most of the business organizations require some amount of working capital and its requirement differ according to the size of the organization.

A firm needs cash to purchase raw materials, pay expenses this is because of not perfect matching between cash inflow and outflow. Cash is also needed to meet the future expenses. The stocks of raw materials are

kept in order to ensure smooth productions and to protect the risk of non-availability of raw materials. To meet this obligation also cash is needed.

Any business organization aims to maximize return on shareholders' investment. In order to accomplish this objective the business organization should earn sufficient return for its operations. Earning a steady amount of profit requires successful sales. So, the firm has to invest enough funds in current assets for the success of sale. As the sale do not converted into cash instantly the extra amount of working capital is needed.

The efficient management of current assets is an integral impact on maximization of owner's capital in this context, it is necessary to have proper analysis for current assets management. The proper analysis of current assets of industrial concern reflects the nature and operation of its management. So, the overall current assets are firstly analyzed.

Table No. 4.1

Position of Current Assets

Fiscal Year	Cash & Bank		Sundry Debtors		Inventory		Advance Deposits		Total C.A.
	Amount	%	Amount	%	Amount	%	Amount	%	
2059/060	5.73	5.04	18.30	16.11	77.75	68.45	11.80	10.39	113.58
2060/061	4.74	3.83	21.07	17.04	83.77	67.74	14.09	11.39	123.67
2061/0062	28.77	25.59	13.17	11.72	60.07	53.44	10.40	9.25	112.41
2062/063	0.80	8.87	25.29	20.77	73.29	60.19	12.39	10.17	121.77
2063/064	2.54	2.54	18.46	18.50	66.47	66.55	12.39	12.40	99.88
Average		9.17		16.83		63.27		10.72	114.26

(Source: Appendix 26)

The above table represents current asset's position of SDL. It also represents investment pattern of this firm in current assets and their fluctuation in years. As per the above table shows overall current assets items.

4.3 Composition of Working Capital (Financial Ratio) Analysis:

The compositions of working capital are analyzed with the following ratios:

4.3.1 Proportion of Current Assets to Total Assets:

As the necessity of current assets depends upon the nature of the business. It is required to meet the working capital, which is required to run the organization's day to day activities. The table given below represents the percentage of current assets to total assets.

Table No. 4.2
Current Assets and Total Assets

(Rs. in Million)

Fiscal Year	Current Assets	Total Assets	Ratio
2059/060	113.58	150.28	75.57 %
2060/061	123.67	160.70	76.96 %
2061/062	112.41	151.26	74.51 %
2062/063	121.77	163.13	74.65 %
2063/064	99.88	140.63	71.02 %
Average	114.26	153.20	74.58 %

This ratio represents the proportion of current assets investment to total assets investment of S.D. Ltd. for the selected years of study period. The overall proportion of current assets on total assets is increasing year after year. In the fiscal year 2059/060, current assets absorb 75.57 % of total assets, which has slightly increased in 2060/061 by 1.39 % i.e. 76.96 %. This is the highest absorption of C.A. to T.A. during study period. This is due to highest amount of Inventory. But in fiscal year 2061/062, the percentage of current assets to total assets has decreased to 74.51 %. Again in next fiscal year 2062/063, it has slightly increased only by 0.14 % being 74.65 %. In last study period, in fiscal year 2063/064 it has decreased to 71.02 %. So, we can say that the proportion of current

assets to total assets is fluctuating; this is due to fluctuation in current assets.

r = 0.98
P.E. = 0.012

(Source: Appendix 1)

The above calculation shows that there is positive correlation between current assets and total assets of the firm during the five study period. Further, the value of 'r' is more than six times greater than its P.E., the relationship is considered to be significant.

4.3.2 Proportion of Current Assets to Fixed Assets:

For the purpose of success of any manufacturing concerns, firm should invest in current assets as well as fixed assets to supports a particular level of output. Therefore, the firm should determine the proper position of current assets with fixed and total assets. The level of current assets can be measured by relationship between current assets to fixed assets, which can help to find the current assets investment policy. Assuming a constant level of fixed assets, higher current assets to fixed assets ratio indicates an aggression. Current assets policy conversely lower ratio indicates the conservative current assets policy. If the firm increase the proportion of current assets there is the high probability of return as well as risk, vice-versa if decrease than it may below risk and return.

Table No. 4.3

Current Assets to Fixed Assets

(Rs. in Million)

Fiscal Year	Current Assets	Fixed Assets	Ratio
2059/060	113.58	36.70	3.09x
2060/061	123.67	37.03	3.34x
2061/062	112.41	38.85	2.89x
2062/063	121.77	41.36	2.94x

2063/064	99.88	40.75	2.45x
Average	114.26	38.99	2.93x

In the above table, ratio of current assets to fixed assets of S.D. Ltd. of five different fiscal years has been presented. During the five study year, the current assets to fixed assets are being fluctuated. The investment in fixed assets is less than that in current assets. In fiscal year 2059/060, the ratio is 3.09 and in 2060/061 it has increased to 3.34 which are the highest among the study year. In fiscal year 2061/062, it has decreased to 2.89 and again it has increased to 2.94 in fiscal year 2062/063. In last fiscal year i.e. fiscal year 2063/064, it has decreased to 2.45 which is the lowest ratio among five study year. Overall this shows that the company has adopted the more conservative current assets investment policy.

r = - 0.30
P.E. = 0.27

(Source: Appendix 2)

In the above table, the correlation coefficient (r) between current assets and fixed assets during the study period of the S.D. Ltd. has shown which is negative. This shows that negative correlation between current assets and fixed assets. Since, 'r' is not six times greater than P.E., the relationship is not considered to be significant.

4.3.3 Proportion of Cash and Bank Balance to Current Assets:

The main reason of holding the cash is for transaction motive, precautionary motive and speculative motive. So, to fulfill the daily business requirement such as payment of bills, purchase of raw materials, payment of debt, optimum cash balance or bank balance has to be

maintained. The below table shows the proportion of cash to current assets:

Table No. 4.4

Cash and Bank Balance to Current Assets

(Rs. in Million)

Fiscal Year	Cash & Bank Balance	Current Assets	Ratio
2059/060	5.73	113.58	5.04 %
2060/061	4.74	123.67	3.83 %
2061/062	28.77	112.41	25.59 %
2062/063	10.80	121.77	8.87 %
2063/064	2.54	99.88	2.54 %
Average	10.52	114.26	9.21 %

The above table shows that the proportion of cash to current assets is highest in the fiscal year 2061/62. The cash hold by the firm in this fiscal year is Rs. 28.77 Million and its 25.59 % of total current assets. Likewise, the cash hold by the company in fiscal year 2063/064 is minimum of Rs. 2.54 Million which is 2.54 percent of its total current assets. The proportion in the first fiscal year 2059/060 is 5.04 % which has decreased to 3.83 % in the next fiscal year 2060/061. And in fiscal year 2062/063 the proportion is 8.87 %

r = 0.08

P.E. = 0.30

(Source: Appendix 3)

In the above calculation, correlation coefficient ‘r’ is positive. So, there is positive correlation between cash and current assets during the study year. But, the calculated value of ‘r’ is not six times greater than P.E., it is not all considered to be significant.

4.3.4 Proportion of Cash & Bank Balance to Total Assets:

The proportion of liquid cash in comparison to the total assets shares the investment in cash out of total assets. The more ratio decrease the risk and provide nothing, the profitability would decrease. The below table shows the percentage of Cash & Bank Balance to Total Assets:

Table No. 4.5

Cash & Bank Balance to Total Assets

(Rs. in Million)

Fiscal Year	Cash & Bank Balance	Total Assets	Ratio
2059/060	5.73	150.28	3.81 %
2060/061	4.74	160.70	2.95 %
2061/062	28.77	151.26	19.02 %
2062/063	10.80	163.13	6.62 %
2063/064	2.54	140.63	1.80 %
Average	10.52	153.20	6.84 %

The above table shows the investment in cash out of its total assets in S.D. Ltd. during the period of study of five years. In the fiscal year 2059/060, the proportion is 3.81% which has fallen down to 2.95% in the next fiscal year 2060/061. In fiscal year 2061/062 it has increased to 19.02% which is the highest during the five study year. Again, it has decreased to 6.62% and 1.80% in next two fiscal year 2062/063 and 2063/064 respectively. The proportion of 1.80% in fiscal year 2063/064 is the lowest among the five study year.

r = 0.10
P.E.= 0.30

(Source: Appendix 4)

In the above correlation, coefficient between Cash and Total Assets is greater than zero. So, there is positive relationship between them. But, PE is greater than r, so there is not all significant.

4.3.5 Proportion of Inventories to Total Assets:

Inventory is one of the important parts of current assets. It will directly affect the total assets. So, it is necessary to know the proportion of Inventories and Total Assets. The below table shows the proportion of inventories and total assets:

Table No. 4.6

Inventory to Total Assets

(Rs. in Million)

Fiscal Year	Inventory	Total Assets	Ratio
2059/060	77.75	150.28	51.74 %
2060/061	83.77	160.70	52.13 %
2061/062	60.07	151.26	39.71 %
2062/063	73.29	163.13	44.93 %
2063/064	66.29	140.63	47.27 %
Average	72.27	153.20	47.16 %

The above table shows the proportion between inventories and total assets during study year. In fiscal year 2059/60, the proportion is 51.74%. It has increased to 52.13% in fiscal year 2060/61, which is the highest ratio among the study years. In fiscal year 2061/62, it has fall down to 39.71% which is the lowest among the study years. Again it has increased respectively to 44.93% and 47.27% in fiscal years 2062/63 and 2063/64.

r = 0.52

P.E. = 0.22

(Source: Appendix 5)

In the above calculation, correlation coefficient between inventories and total assets is greater than zero and positive. So, there is positive relation between them. Also, r is greater than PE but it is not six times greater than PE. Therefore, the relationship is considered not significant.

4.3.6 Proportion of Inventory to Current Assets:

One of the important parts of current assets is inventory. In the manufacturing company like S.D. Ltd., increasing of raw materials, as well as finished goods spare parts are very important. The shortage of raw materials creates irregular in production, high manufacturing cost, unfavorable labor variance, etc. On the other hand, excess inventory causes unnecessary handling of capital which earns nothing. It results high cost in inventory management. Not only the inventory of raw material, there should be proper management of finished goods or outputs, so that consumer never feels to have shortage. It arise the neither excess inventory problem nor shortage of inventory problem. The table below shows the proportion of inventory to its current assets.

Table No. 4.7

Inventory to Current Assets

(Rs. in Million)

Fiscal Year	Inventory	Current Assets	Ratio
2059/060	77.75	113.58	68.45 %
2060/061	83.77	123.67	67.74 %
2061/062	60.07	112.41	53.44 %
2062/063	73.29	121.77	60.19 %
2063/064	66.29	99.88	66.55 %
Average	72.27	114.26	63.27 %

In the above table, the proportion of inventory to current assets during the study year has been calculated. In the fiscal year 2059/060, it is 68.45% which is the highest among the study years. In fiscal year 2060/061, it has fallen to 67.74%. In 2061/62, it has lowest ratio of 53.44% among the study year. And it has increased to 60.19% and 66.55% in fiscal year 2062/063 and 20630/64 respectively.

r = 0.62

P.E. = 0.19

(Source: Appendix 6)

In the above calculation, correlation coefficient of Inventory and current assets is positive. So, there is positive correlation between them. Since, the calculated value of 'r' is not six times greater than PE. So, it is not considered to be significant.

4.3.7 Proportion of Receivables to Total Assets:

In this era of mid throat competition situation of the market, credit sales plays a vital role in the development and expansion of market, without increasing sales volume, the company can't earn profit and therefore maximize shareholder's wealth. Hence, the company should keep some provisions for credit sales. The company has to arrange some working capital for this purpose. The nature and term of credit should be determined in advance in order to avoid the company from the deficiency of working capital. Such arrangement is basically terms receivables management. The receivables should be perfect. Higher degree of receivables result unnecessary hold up of working capital, lower degree of receivables may cause negative result in sales level. The below table shows the proportion of receivables to total assets.

Table No. 4.8

Receivables to Total Assets

(Rs. in Million)

Fiscal Year	Receivables	Total Assets	Ratio
2059/060	18.30	150.28	12.18 %
2060/061	21.07	160.70	13.11 %
2061/062	13.17	151.26	8.71 %
2062/063	25.29	163.13	15.50 %
2063/064	18.48	140.63	13.14 %
Average	19.26	153.20	12.53 %

In above table, the proportion of receivables to total assets is 12.18% in the fiscal year 2059/060. It has increased by 0.93% in fiscal year 2060/061 to reach 13.11%. Further, it has decreased to 8.71% in fiscal year

2061/062, which is the lowest of the study year. It has highest ratio in fiscal year 2062/063 reaching 15.50% and in fiscal year 2063/064 it has decreased to 13.14%.

r = 0.61
P.E. = 0.19

(Source: Appendix 7)

In the above calculation, there is positive correlation between receivables and total assets during the study year. Since, the calculated value of 'r' is not six times greater than PE. So, it is considered to be not significant.

4.3.8 Proportion of Receivables to Current Assets:

The table below shows the proportion of receivables to current assets.

Table No. 4.9

Receivables to Current Assets

(Rs. in Million)

Fiscal Year	Receivables	Current Assets	Ratio
2059/060	18.30	113.58	16.11 %
2060/061	21.07	123.67	17.04 %
2061/062	13.17	112.41	11.72 %
2062/063	25.29	121.77	20.77 %
2063/064	18.48	99.88	18.50 %
Average	19.26	114.26	16.83 %

In the above table, the proportion of receivables to current assets is 16.11% in fiscal year 2059/060. In year 2060/061, it has increased to 17.04%. Next, it has decreased to 11.72% in fiscal year 2061/062 which is lowest of the study year. Fiscal year 2062/063 has highest ratio i.e. 20.77% among the study year. And in year 2063/064 it is 18.50%.

r = 0.51
P.E. = 0.22

(Source: Appendix 8)

The above calculation shows that there is positive correlation in between receivables and current assets during the period of study. Since, the calculated value of 'r' is not six times greater than PE, it is not considered to be significant.

4.4 Liquidity Position:

Liquidity position shows the ability to pay the bills. Liquidity fulfills the current need of money. Since, the study is focused on working capital management of the company. So, liquidity position plays vital role to manage the working capital. Here, the current ratio, quick ratio, cash ratio and working capital to current assets ratio of S.D. Ltd. during five years period of study are observed.

4.4.1 Current Ratio:

It is the simple relationship of current assets to current liabilities current assets includes cash and bank balance, inventory, receivables and other miscellaneous current assets, whereas current liabilities include creditors, cash credit taken, provision for taxation, unclaimed dividend and other miscellaneous current liabilities. The current ratio of the firm for the period of study is calculated in the table below.

Table No. 4.10

Current Ratio

(Rs. in Million)

Fiscal Year	Current Assets	Current Liabilities	Ratio
2059/060	113.58	52.48	2.16x
2060/061	123.67	61.07	2.03x
2061/062	112.41	50.30	2.23x
2062/063	121.77	58.63	2.08x
2063/064	99.88	55.69	1.79x
Total	571.31	278.17	10.29x
Average	114.26	55.63	2.06x

The above table shows that firm's average current ratio during study year is 2.06:1. It shows that company has enough current assets to pay current obligations i.e. no shortage of current assets. Because the standard current ratio is 2:1 and here average is 2.06:1 which are quite close. In the fiscal year 2060/061 has 2.03:1 ratio which is best standard ratio among the study period. But in fiscal year 2061/062 it has highest ratio of 2.23:1 which shows that it has kept high current assets then current liabilities. And in fiscal year 2063/064 it has low ratio of 1.79:1 which is lower than the standard ratio. Overall the firm has maintained the standard current ratio.

r = 0.52
P.E. = 0.22

(Source: Appendix 9)

The above calculation shows that, correlation coefficient between current assets and current liabilities 'r' during the study period is positive therefore there is positive correlation between them. Since, the calculated value of 'r' is not six times more than of PE, it is not considered to be significant.

4.4.2 Quick Ratio (Acid Test Ratio):

Quick ratio or acid test ratio is the relationship in between quick assets and current liabilities. It is the measurement of company's ability to convert its current assets, quickly into cash in order to meet its current liabilities. The high inventory level, which can't convert quickly into cash. So, the study of quick ratio is reliable. It can be computed by dividing quick assets by current liabilities. The quick ratio of S.D. Ltd. during the study period is presented below.

Table No. 4.11

Quick Ratio

(Rs. in Million)

Fiscal Year	Quick Assets	Current Liabilities	Ratio
2059/060	35.83	52.48	0.68x
2060/061	39.90	61.07	0.65x
2061/062	52.34	50.30	1.04x
2062/063	48.48	58.63	0.83x
2063/064	33.41	55.69	0.60x
Total	209.96	278.17	3.80x
Average	41.99	55.63	0.76x

(Quick Assets = Current Assets – Inventory)

In the above table, the calculated average quick ratio is 0.76:1 which is not considered to be quite good because the perfect quick ratio is 1:1. During the five study period the quick ratio is quit fluctuating. It ranges from 0.60 to 1.04. In the fiscal year 2061/062 it has highest ratio i.e. 1.04:1 and it is also close to the 1:1 ratio so accepted to be best quick ratio during the study period. In fiscal year 2063/064 it has lowest ratio of 0.60:1 which is not good for the firm.

r = -0.19

P.E. = 0.29

(Source: Appendix 10)

As in the above calculation, the correlation coefficient ‘r’ is negative so there is negative correlation between quick assets and current liabilities during the study period. And also ‘r’ is less than PE, it is considered that the relationship is not all significant.

4.4.3 Cash Ratio:

Cash ratio is the relationship between cash and marketable securities and current liabilities. Cash is the important current assets to run any firm. So, the firm should manage the amount of cash in proper way. The below table shows the relationship between cash & marketable securities and current liabilities.

Table No. 4.12

Cash Ratio

(Rs. in Million)

Fiscal Year	Cash & Marketable Securities	Current Liabilities	Ratio
2059/060	5.73	52.48	10.92 %
2060/061	4.74	61.07	7.76 %
2061/062	28.77	50.30	57.20 %
2062/063	10.80	58.63	18.42 %
2063/064	2.54	55.69	4.56 %
Total	52.58	278.17	98.86%
Average	10.52	55.63	19.77 %

The above table shows the cash ratio during five study year which are fluctuating over the years. It ranges from 4.56% to 57.20%. In the fiscal year 2059/060 it has 10.92%. Next fiscal it has decreased to 7.76%. In fiscal year 2061/062 it has highest ratio of 57.20% which has fallen to 18.42% in fiscal year 2062/063. And in fiscal year 2063/064 it has lowest of 4.56% all over the study year.

r = -0.61

P.E. = 0.19

(Source: Appendix 11)

In the above figure, there is negative correlation coefficient ‘r’, so there is negative relationship between cash & marketable securities to current liabilities. Since, ‘r’ is not six times greater than PE, it is considered that relationship is not significant.

4.4.4 Working Capital to Current Assets Ratio:

This ratio shows the relationship between working capital and current assets. Here, working capital means net working capital. Net working capital is current assets less current liabilities. The table below shows the relationship between working capital and current assets.

Table No. 4.13

Working Capital to Current Assets Ratio

(Rs. in Million)

Fiscal Year	Working Capital	Current Assets	Ratio
2059/060	61.10	113.58	53.79 %
2060/061	62.60	123.67	50.62 %
2061/062	62.11	112.41	55.25 %
2062/063	63.14	121.77	57.85 %
2063/064	44.19	99.88	44.24 %
Total	293.14	571.31	261.75%
Average	58.63	114.26	51.15 %

In the above table, the relationship between working capital and current assets is 53.79% in the fiscal year 2059/060 which has fall down to 50.62% in fiscal year 2060/061. In fiscal year 2061/062 it has highest ratio with 55.25% among the study year. It has decreased to 51.85% in fiscal year 2062/063. In fiscal year 2063/064 it has lowest of 44.24% among the study year.

r = 0.89

P.E. = 0.06

(Source: Appendix 12)

In the above figure, correlation coefficient ‘r’ is positive. Hence, the relationship between working capital and current assets is positive. Also, ‘r’ is six times greater than PE, it is considered that the relationship is significant.

4.5 Profitability Position:

Behind the establishment of a manufacturing company, there is objective of earning profit or getting maximum return on investment. Profitability of company is concern with all parties of the country. Effective utilization of resources to earn maximum amount profit is the basic through of company. Profitability is the measure of efficiency. To measure the profitability position of the S.D. Ltd., the researcher has tried to analyze the profitability ratio, such as: gross profit margin, net profit margin, operating ratio, return on assets, return on net work and return on working capital.

4.5.1 Gross Profit Margin (GPM):

It is the profit of excluding the deduction of operating expenses and income tax. It is obtained by deducting cost of goods sold from net sales. The ratio is the relationship between gross profit to net sales which explains that percentage return of gross profit out of total assets. The ratio measure the efficiency of company and soundness of management. Higher percentage indicates the better efficiency. The below table shows the gross profit earned by the company during period of study and sales made there off.

Table No. 4.14

Gross Profit Margin

(Rs. in Million)

Fiscal Year	Gross Profit (Loss)	Sales	Ratio
2059/060	36.49	156.04	23.39 %
2060/061	2.98	111.94	2.66 %
2061/062	1.57	124.40	1.26 %
2062/063	10.30	128.02	8.05 %
2063/064	(20.25)	86.73	(23.35) %
Total	31.09	607.16	12.01%
Average	6.22	121.43	2.40%

In the above table gross profit margin of the firm during the five study years are shown which is quite fluctuating. The firm has gross profit during four years expect gross loss in the last study year. In fiscal year 2059/060, it has gross profit margin of 23.39% i.e. gross profit, which is the highest gross profit among the study year. In next fiscal year 2060/061, it has fallen to 2.66% and further to 1.2% in fiscal year 2061/062. In fiscal year 2062/063 it has increased to 8.05% and in the last study year in fiscal year 2063/064 it has gross profit margin of negative i.e. 23.35% gross loss. Overall it shows that the firm is in gross profit.

r = 0.98
P.E. = 0.012

(Source: Appendix 13)

The above calculation shows the positive relationship between gross profit and sales because the correlation coefficient between them is positive. Hence, ‘r’ is six times greater than PE, the relationship is considered to be significant.

4.5.2 Net Profit Margin (NPM):

Net profit is the profit which comes after deducting operating expenses and income tax from gross profit. This ratio is the relationship on net profit after tax to sales. This ratio shows the ability of management to operate business with sufficient success. The ratio of net profit to sales essentially expresses the cost price effectiveness of the operation. The operating expenses mainly affect the net profit of company. The table below shows the net profit margin of S.D. Ltd. during the study period.

Table No. 4.15

Net Profit Margin

(Rs. in Million)

Fiscal Year	Net Profit after Tax (Loss)	Sales	Ratio
2059/060	18.38	156.04	11.77 %
2060/061	0.70	111.94	0.63 %
2061/062	0.09	124.40	0.07 %
2062/063	4.79	128.02	3.74 %
2063/064	(21.25)	86.73	(24.50) %
Total	2.71	607.16	8.29 %
Average	0.54	121.43	1.66 %

The above table shows the net profit margin of S.D. Ltd. during five study years. The average net profit margin of the firm is negative. It tells that the firm is not able to obtain profit after the payment of tax for the five study year. In fiscal year 2059/060, it has 11.77% net profit margin which is the highest among the studied years. It has reduced to 0.63% and 0.07% in fiscal year 2060/061 and 2061/062 respectively. In fiscal year 2062/063, it rises to 3.74% and it is negative 24.50% in fiscal year 2063/064. Overall net profit margin of the firm is not satisfactory.

r = 1.05

P.E. = 0.03

(Source: Appendix 14)

In the above calculation, correlation coefficient ‘r’ between net profit after tax and sales is greater than positive i.e. +1. Therefore, the relationship is perfectly positive. Hence, ‘r’ is six times greater than PE, the relationship is considered as significant.

4.5.3 Operating Ratio (OR):

The operating ratio establishes the relationship between total operating expenses and sales volume. It is an important ratio that explains the changes in the net profit margin ratio. It also measures the efficiency of the company as regards to minimizing costs. Operating ratio is an indicator of operational efficiency. The table below shows the operating ratio of the S.D. Ltd. during the period of study.

Table No. 4.16

Operating Ratio

(Rs. in Million)

Fiscal Year	Cost of Good Sold + Operating Expenses	Sales	Ratio
2059/060	119.55	156.04	76.61 %
2060/061	108.99	111.94	97.34 %
2061/062	122.83	124.40	98.74 %
2062/063	117.72	128.02	91.95 %
2063/064	106.98	86.73	123.35 %
Total	576.07	607.16	487.99 %
Average	115.21	121.43	97.60 %

The above table shows that in the operating ratio is 76.61% in the fiscal year 2059/060 which is the lowest ratio and it satisfactory than in the other fiscal year. Then it has increased to 97.34% and 98.74% in fiscal year 2060/061 and 2061/062 respectively. And in fiscal year it has increased to 91.95%. It has highest ratio in fiscal year 2063/064 reaching 123.35%. Overall the operating ratio of the firm is not considered to be good one.

r = 0.77

P.E. = 0.12

(Source: Appendix 15)

In the above calculation, the correlation coefficient 'r' is positive therefore relationship between COGS and operation expenses to sales is positive. Hence, 'r' is six times greater the value of PE, the relationship is considered to be significant.

4.5.4 Return on Assets (ROA):

It measures the percentage of return on the overall total assets employed for every activities of the company. It gives the profit giving efficiency of the company in relation to total assets. The return on total assets of S.D. Ltd. is presented below in the table during the period of study.

Table No. 4.17

Return on Assets

(Rs. in Million)

Fiscal Year	Net Profit after Tax (Loss)	Total Assets	Ratio
2059/060	18.38	150.28	12.23 %
2060/061	0.70	160.70	0.44 %
2061/062	0.09	151.26	0.06 %
2062/063	4.79	163.13	2.94 %
2063/064	(21.28)	140.63	(15.13) %
Total	2.71	766.00	0.54 %
Average	0.54	153.20	0.11 %

In the above table, the return on assets for five study year is shown. The average ratio is positive, it shows that the firm has return in the total assets used but it is low. The firm has best return in the fiscal year 2059/060 among the study year of 12.23%. And in fiscal year 2063/064 it has no return or loss of 15.13%. Overall the firm is able to return only what they had invested in total assets as a whole during the five study year.

r = 0.52
P.E. = 0.22

(Source: Appendix 15)

The above calculation shows that the correlation coefficient between net profit after tax and total assets is positive. So they have positive relationship. Hence, the value of 'r' is not six times greater than the value of PE, the relationship is considered as not significant.

4.5.5 Return on Net Worth (RONW):

It gives the percentage return on the owner's capital invested. The conclusions drawn on the basis of preceding ratios may not give true result because they give profit in sales and total assets i.e. net worth needful to study. The table presented below shows the ratio of return on owner's capital employed during the period of study of S.D. Ltd.

Table No. 4.18
Return on Net Worth

(Rs. in Million)

Fiscal Year	Net Profit after Tax (Loss)	Net Worth	Ratio
2059/060	18.38	52.11	35.27 %
2060/061	0.70	52.11	1.34 %
2061/062	0.09	52.11	0.17 %
2062/063	4.79	52.11	9.19 %
2063/064	(21.28)	52.11	(40.84) %
Total	2.71	260.55	5.13 %
Average	0.54	52.11	1.03 %

The above table shows the relationship between net profit after tax with net worth. In the fiscal year 2059/060, it has highest ratio of 35.27% which has fall down to 1.34% and 0.17% in fiscal year 2060/061 and 2061/062 respectively. In fiscal year 2062/063, it has rise to 9.19%. And it has negative ratio of 40.84% in fiscal year 2063/064. Overall the calculation shows that the return on network ratio is quite fluctuating over five study year. It has fluctuated from positive 35.27% to negative 40.84%.

r = 0

P.E. = 0.30

(Source: Appendix 17)

The above figure shows that the value of correlation coefficient 'r' between net profit after tax and net worth is zero. So, there is no relationship between them. Here, the value of 'r' is smaller than the value of PE, the relationship is considered as not all significant or no evidence of correlation between variables.

4.5.6 Return on Working Capital (ROWC):

This is the ratio of return on current assets on working capital employed by the firm. It measures the profit with respect to its total current assets. It gives the utilization of current assets effectiveness. The table presented below shows the relationship between net profit after tax and current assets i.e. working capital during the period of study.

Table No. 4.19

Return on Working Capital

(Rs. in Million)

Fiscal Year	Net Profit after Tax (Loss)	Current Assets	Ratio
2059/060	18.38	113.58	16.18 %
2060/061	0.70	123.67	0.57 %
2061/062	0.09	112.41	0.08 %
2062/063	4.79	121.77	3.93 %
2063/064	(21.28)	99.88	(21.30) %
Total	2.71	571.31	(0.54) %
Average	0.54	114.26	(0.11) %

The above table shows the relationship between net profit after tax and current assets is 16.18% in fiscal year 2059/60, which is the highest ratio

over the study year. In fiscal year 2060/61 and 2061/62, it has fallen to 0.57% and 0.08% respectively. Again, in fiscal year 2062/63, it has rise to 3.93%. It has negative ratio of 21.30% which is lowest ratio during the study period. Overall it shows the fluctuating return on working capital ratio.

r = 0.62
P.E. = 0.19

(Source: Appendix 18)

The above calculation shows the correlation coefficient 'r' between net profit after tax and current is positive. So, there is positive correlation between them. Here, the value of 'r' is not six times greater than PE, the relationship is considered to be not significant.

4.6 Turnover Ratio:

Turnover ratio indicates the relationship between sales and assets. It is also known as activity, efficiency or assets utilization ratio. This ratio measures the degree of effectiveness in use of resource or fund by a firm. Various turnover ratio has been calculated below:

4.6.1 Working Capital Turnover (WCT):

It is computed by dividing sales by net working capital. Net working capital is excess amount of current assets over current liabilities. Such working capital is the margin of safety maintained by the company. In case of trading and financial firms, the need of working capital will be limited. But in manufacturing company like S.D. Ltd., the size of working capital depends upon production cycle and business cycle. The net working capital position maintained by the S.D. Ltd. is presented below.

Table No. 4.20

Working Capital Turnover

(Rs. in Million)

Fiscal Year	Sales	Net Working Capital	Ratio
2059/060	156.04	61.10	2.55x
2060/061	111.94	62.60	1.79x
2061/062	124.40	62.11	2.00x
2062/063	128.02	63.14	2.03x
2063/064	86.73	44.19	1.96x
Total	607.16	293.14	10.33x
Average	121.43	58.63	2.07

The above table shows the working capital turnover of the S.D. Ltd. for the five study period. In fiscal year 2059/060, it has ratio of 2.55 times which is highest among the five studied period. In fiscal year 2060/061 it has lowest ratio of 1.79 times which had rise to 2.00 and 2.03 times in fiscal year 2061/062 and 2062/063 respectively. And in last fiscal year 2063/064, it has ratio of 1.96 times. Overall it has average ratio of 2.07 times during five studied year.

r = 0.72

P.E. = 0.14

(Source: Appendix 19)

The above calculation shows the correlation coefficient ‘r’ of sales to net working capital is positive. So there is positive relationship between them. Here, the value of ‘r’ is not six times greater than the value of P.E., the relationship is considered to be not significant.

4.6.2 Inventory Turnover Ratio (ITR):

Inventory is also the one component of current assets which also should be maintained effectively and efficiently. It has already been stated that working capital production and sales are correlated in general causes. The production should be increased to meet the higher level of sales target. To produce more, more raw materials will be required. The stock level of raw materials should be properly maintained to meet the raw materials requirement for higher level of production. Hence, to fulfill this requirement, the company has to increase its working capital. The below presented table shows the inventory turnover position of S.D. Ltd. during the period of study.

Table No. 4.21

Inventory Turnover

(Rs. in Million)

Fiscal Year	Sales	Inventory	Ratio
2059/060	156.04	77.75	2.01x
2060/061	111.94	83.77	1.34x
2061/062	124.40	60.07	2.08x
2062/063	128.02	73.29	1.75x
2063/064	86.73	66.47	1.30x
Total	607.16	36.35	8.48x
Average	121.43	72.27	1.70x

The above table shows the inventory turnover of S.D. Ltd. during the period of study. In fiscal year 2059/060, it has ratio of 2.01 times and fallen to 1.34 in fiscal year 2060/061. In fiscal year 2061/062, it has rise to 2.08 times which is the highest among the five study year. Then, it has fallen to 1.75 and 1.30 respectively in fiscal year 2062/063 and 2063/064. The firm has average inventory turnover of 1.70 times during study year.

r = 0.27

P.E. = 0.28

(Source: Appendix 20)

As the above calculation shows that the value of correlation coefficient 'r' between sales and inventory is positive. So there is positive relationship between them. Here, value of 'r' is smaller than the value of PE, the relationship is not all significant.

4.6.3 Receivables Turnover Ratio (RTR):

Receivables is one of the components of working capital. In order to increase the business activities the company has to increase the sales volume. The sales volume can be increased by giving products in credit to the customers. In such case, level of receivables goes up. It is also known as debtors turnover ratio. The table presented below shows the receivables turnover position and average collection period of its receivables of the S.D. Ltd. during the study period.

Table No. 4.22

Receivable Turnover

(Rs. in Million)

Fiscal Year	Sales	Receivables	Ratio	Avg. Coll^{n} Period
2059/060	156.04	18.30	8.53	43 days
2060/061	111.94	21.07	5.31	69 days
2061/062	124.40	13.17	9.45	39 days
2062/063	128.02	25.29	5.06	72 days
2063/064	86.73	18.48	4.69	78 days
Total	607.16	96.31	33.04	301 days
Average	121.43	19.28	6.61	60 days

The above table shows the receivable turnover of S.D. Ltd. during five study year and average collection period. In fiscal year 2059/060, it has ratio of 8.53 times which has fallen to 5.31 times in fiscal year 2060/061. Further it has increased to 9.45 times in fiscal year 2061/062 which is the highest ratio among the five studied year. Respectively, it has fallen to 5.06 and 4.69 times in fiscal year 2062/063 and 2063/064. Overall it has average receivable turnover ratio of 6.61 times.

The average collection period of credit sales has found to be best in fiscal year 2061/062 is only 39 days. It means credit sales amount are collected only within 39 days. In fiscal year 2063/064 it has delay collection period of 78 days. Overall it has average collection period of 60 days.

r = -0.0037
P.E. = 0.30

(Source: Appendix 21)

The above calculation shows the relationship between sales and receivable is negative. Here, the value of 'r' is less than PE, so the relationship is considered to be not all significant.

4.6.4 Cash and Bank Balance Turnover Ratio:

It is one of the main parts of current assets which have greater value to meet the current obligations occurred in the business. It should be just adequate to run business and excess cash has no meanings as it earns nothing. So, the companies always see the risk return trade off to maintain just adequate cash balance. The table presented below shows the cash turnover position of the S.D. Ltd. during the period of study.

Table No. 4.23

Cash and Bank Balance Turnover

(Rs. in Million)

Fiscal Year	Sales	Cash and Bank Balance	Ratio
2059/060	156.04	5.73	27.23x
2060/061	111.94	4.74	23.62x
2061/062	124.40	28.77	4.32x
2062/063	128.02	10.80	11.85x
2063/064	86.73	2.54	34.15x
Total	607.16	52.58	101.17x
Average	121.43	10.52	20.23x

The above table shows the cash and bank balance turnover ratio of S.D. Ltd. In fiscal year 2059/060 it is 27.23 times, which has reduced to 23.62 and 4.32 times in the fiscal year 2060/061 and 2061/062 respectively. The 4.32 times is the lowest ratio among the studied year. Again, the ratio has rised to 11.85 and 34.15 times in the fiscal year 2062/063 and 2063/064 respectively. In fiscal year 2063/064 it has highest ratio of 34.15 times. Overall average cash and bank balance turnover ratio of the firm during five study year is 20.23 times.

r = 0.21
P.E. = 0.29

(Source: Appendix 22)

The above calculated figure shows the correlation coefficient ‘r’ between cash and bank balance and sales is positive. It means that there is positive relationship between them. But, the value of ‘r’ is smaller than the values of P.E., therefore the relationship is considered to be not all significant.

4.7 Leverage Ratio:

Leverage ratio or capital structure ratio are also known as long-term solvency ratio. Leverage ratio is used to measure the financial risk and to know that how fare the firm is using its debt for the benefits of shareholders. Leverage ratio also reflects the proportion of debt in total financing. The two types of leverage ratio are shows below:

4.7.1 Short-term Financing (STF) to Long-term Financing (LTF) Ratio:

This ratio is computed by dividing short-term financing amount by the long-term financing. Fund raised from short-term financing can be used to increase current assets, to meet daily expenses. The table presented below shows this ratio.

Table No. 4.24

Short-term Financing (STF) to Long-term Financing (LTF)

(Rs. in Million)

Fiscal Year	STF	LTF	Ratio
2059/060	52.48	52.11	1.01x
2060/061	61.07	52.11	1.17x
2061/062	50.30	52.11	0.97x
2062/063	58.63	52.11	1.13x
2063/064	55.69	52.11	1.07x
Total	278.17	260.55	5.15x
Average	55.63	52.11	1.07x

The above table shows the short-term financing to long-term financing of S.D. Ltd. during the five study period. In fiscal year 2059/060, it has 1.01 times. It has highest ratio of 1.17 times in fiscal year 2060/061 and lowest of 0.97 times in fiscal year 2061/062. It has 1.13 and 1.07 times ratio in fiscal year 2062/063 and 2063/064 respectively. Overall it has average ratio of 1.07 times.

r = 0

P.E. = 0.30

(Source: Appendix 23)

The above calculated figure shows the correlation coefficient between STF and LTF is zero. It means that there is no relationship between them. Also, the value of 'r' is smaller than the value of PE, it is considered that the relationship is not all significant.

4.7.2 Short-term Financing (STF) to Total Financing (TF) Ratio:

This ratio shows the proportion of short-term financing out of total financing amount. This ratio is computed by total financing. If a firm uses more short-term financing then, an aggressive policy is said to be followed by the firm. The table below shows the STF to TF ratio of S.D. Ltd. during five study period.

Table No. 4.25

Short-term Financing (STF) to Total Financing (TF)

(Rs. in Million)

Fiscal Year	STF	TF	Ratio
2059/060	52.48	104.59	0.50x
2060/061	61.07	113.18	0.54x
2061/062	50.30	102.41	0.49x
2062/063	58.63	110.74	0.53x
2063/064	55.69	107.80	0.52x
Total	278.17	538.72	2.58x
Average	55.63	107.74	0.52x

The above table shows the STF to TF ratio of S.D. Ltd. during five study period which is 0.50 in fiscal year 2059/060, 0.54 in 2060/061, 0.49 in

2061/062, 0.53 in 2062/063 and 0.52 in 2063/064. The ratio of 0.54 in fiscal year 2060/061 is the highest ratio and the ratio of 0.49 in fiscal year 2061/062 is the lowest one. Overall average ratio is 0.52 times.

r = 1
P.E. = 0

(Source: Appendix 24)

The above calculated figure shows that the correlation coefficient between STF and TF is positive. It means the relationship is perfectly positive. Also, the value of 'r' is six times greater than the value of PE, so the relationship is considered significant at all.

4.8 Cash Conversion Cycle Model:

A cash conversion cycle reflects the net time interval in days between actual cash expenditures of the firm on productive resources and the ultimate recovery of cash. The cash conversion cycle (net operating cycle) represents the net time gap between investment of cash and its recovery of sales revenue. It is the net time interval between cash collection from sale of product and cash payment for resources acquired by the firm.

Cash Conversion Cycle (CCC) is calculated by subtracting payable deferral period (PDP) from Operating Cycle, where as Operating Cycle is the sum of Inventory Conversion Period (ICP) and Receivable Conversion Period (RCP). The table below shows the Cash Conversion Cycle of S.D. Ltd. during five study period.

Table No. 4.26

Cash Conversion Cycle

(In Days)

Fiscal Year	ICP	RCP	PDP	CCC
2059/060	212	43	114	141
2060/061	270	69	131	208
2061/062	213	39	121	131
2062/063	206	72	122	156
2063/064	238	78	140	176
Total	1139	301	628	812
Average	227	60	125	162

The above table shows the cash conversion cycle of S.D. Ltd. during the study period. In fiscal year 2059/060, it has 141 days, which has increased to 208 day in fiscal year 2060/061. This is the highest days to convert credit sales into cash. As it takes more time, this is not favourable for the firm. Again, in fiscal year 2061/062, 2062/063, 2063/64 it has become 131, 156 and 176 days respectively. The average cash conversion cycle for five studied year is 162 days. This is a long period. So, the firm is not able to convert its sales into cash in good time.

4.9 Presentation and Analysis of Primary Information:

To make research more reliable, analytical, informative and challenging; qualitative analysis (primary information) plays vital role. So, in this case study of S.D. Ltd., the researcher efforts to analyze the primary information as obtained from the questionnaire distributed to the related executives, personal of the company. The Performa of questionnaire attempts to analysis the important aspect of working capital management of S.D. Ltd., includes the identification of that asset which is more difficult to manage, major reason for the importance of current assets management, the more problematic current assets, major motive for

holding cash inventory and major factor affecting the investment in account receivable.

Table No. 4.27

Result of Questionnaire

Q.N. Stems	1	2	3	4	5	6
a	4 (67%)	5 (83%)	2 (33.3%)	6 (100%)	6 (100%)	6 (100%)
b	2 (33%)	1 (17%)	2 (33.3%)	×	×	×
c	×	×	2 (33.3%)	×	×	×
d	×	×	×	×	×	×
Total Responses	6	6	6	6	6	6

Note:

- 'Q.N.' refers to Question Number of Questionnaire provided to related personals.
- Stem: Indicates the choices, specialized in each question.
- The figure indicates the number of responses over total.
- Figure in parenthesis indicates percentage over total respondents.

4.10 Major Findings:

The major findings of the study during the period of five years in S.D. Ltd. from the analysis of primary and secondary sources are summarized below:

i) The major components of current assets of S.D. Ltd. are cash and bank, sundry debtors, inventory and advance deposits. The total current assets during five study years from fiscal year 2059/060 to 2063/064 are Rs. 113.58 Million, Rs. 123.67 Million, Rs. 112.41 Million, Rs. 121.77 Million and Rs. 99.88 Million respectively. During the study years inventory holds the major portions of S.D. Ltd.'s current assets i.e. 63.27% average. The average percentage

of cash and bank, sundry debtors and advance deposits are 9.17%, 16.83% and 10.72%.

ii) The proportion of current assets to total assets is fluctuating during the study period. It has been fluctuated from 71.02% to 76.96%. The fiscal year 2060/061 has the highest proportion of current assets to total asset of 76.96% during the fine study period. And fiscal year 2063/064 has the lowest proportion of 71.02%. It ahs proportion of 75.57%, 74.51% and 74.65% in fiscal year 2059/060, 2061/062 and 2062/063 respectively.

iii) The proportion of current assets to fixed assets is not so fluctuating during the study year. Higher the proportion of current assets to fixed assets higher the risk and return will be. So, in fiscal year 2060/61, the proportion of current assets to fixed assets is highest with 3.34 times, it means that during this year, risk and return is more than in other study years. And in fiscal year 2063/64, it has proportion of 2.45 times which is lowest with low risk and return than in other study year.

iv) The proportion of cash and bank balance to current assets is fluctuating during the study period. It has 5.04%, 3.83%, 25.59%, 8.87% and 2.54% proportion of cash and bank balance to current assets from fiscal year 2059/060 to 2063/064 respectively. In fiscal year 2061/062, it has maintained high cash and bank balance of Rs. 28.77 Million and in fiscal year 2063/064 it has maintained low of Rs. 2.54 Million. But the firm should maintain optimum cash and bank balance, it should not be either high or low.

v) The average proportion of cash and bank balance to total assets is 6.84% during the study period. Higher the proportion of cash and bank balance to total assets, lower the risk and return and vice-versa. In fiscal year 2061/062, the firm has highest ratio among the study period, it means it has low risk and return. And in fiscal year 2063/064, it has lowest ratio 1.80% with high risk and return. Overall, the firm has followed the conservative working capital policy.

vi) The proportion of inventory to total assets is fluctuating during the study period. The firm has 51.74%, 52.13%, 39.71%, 44.93% and 47.27% of proportion of inventory to total assets respectively from fiscal year 2059/060 to 2063/064. The firm has highest ratio in fiscal year 2060/061 and lowest in fiscal year 2061/062.

vii) The average proportion of inventory to current assets is 63.27% during the study period. The proportion has been fluctuated from 53.44% to 68.45% during the study year. In fiscal year 2059/060 it has highest proportion and lowest in fiscal year 2061/062.

viii) The average proportion of receivable to total assets is 12.53% during the five study year. Higher degree of receivable result unnecessary hold up of working capital and lower degree of receivable may cause negative result in sales level. So, the firm should properly manage the level of receivable. During the fiscal year 2062/063, the firm has highest proportion of receivable to total assets and lowest during fiscal year 2061/062.

ix) The proportion of receivable to current assets is fluctuation during the study period. It has fluctuated from 11.72% to 20.77%. In fiscal year 2062/063, it has highest ratio and in fiscal year 2061/062.

x) The average current ratio of S.D. Ltd. is 2.06 times during the study period. This ratio is quite close to the standard current ratio of 2 times. It means that the firm has enough current assets to pay current obligations. In fiscal year 2060/061, the firm has best ratio i.e. 2.03 times among the five study years. The firm's current asset varies from Rs. 99.58 Million to Rs. 123.67 Million and current liabilities from Rs. 50.30 Million to Rs. 61.07 Million.

xi) The average quick ratio is 0.76 times during the study period, which is below the standard of 1 times. The quick ratio is fluctuated from 0.60 to 1.04 times. In fiscal year 2061/062, it has best ratio among the other studied year which is close to 1 times. And in fiscal year 2063/064, it has lowest ratio of 0.60 times.

xii) The cash ratio is fluctuating during the study period. It has been fluctuated from 4.50% to 57.20%. The average cash ratio is 19.77% during the study period. The firm has highest cash ratio during the fiscal year 2061/062 and lowest during the fiscal year 2063/064.

xiii) The average working capital to current assets ratio is 51.15% during the study period. The firm has 53.79%, 50.62%, 55.25%, 51.85% and 44.24% of working capital to current assets from fiscal year 2059/060 to 2063/064 respectively. It has highest ratio in fiscal year 2061/062 and lower in fiscal year 2063/064.

xiv) Profitability is the measure of efficiency. The profitability position is analyzed from various angles. The gross profit margin of S.D. Ltd. is in decreasing trend of the study period except of fiscal year

2061/062. The average gross profit margin of 23.39% in fiscal year 2059/060 and lowest of negative (23.35%) in fiscal year 2063/064. The average net profit margin of S.D. Ltd. during the study period is negative 1.66%. It means that the firm is not able to obtain profit after the payment of tax during the study period. The firm has highest net profit margin of 11.77% in fiscal year 2059/060 and lowest of negative 24.50% in fiscal year 2063/064 among the five study year. The operating ratio is fluctuating during the study period. It ranges from 76.61% to 123.35%. And the average operating ratio is 97.60% during the study period. The firm has highest operating ratio in fiscal year 2063/064 and lowest in fiscal year 2059/060.

The average return on assets ratio of S.D. Ltd. is 0.11% during the study period. So, it is not satisfactory. In fiscal year 2059/60, it has highest return on assets of 12.23% and lowest of negative 15.13% in fiscal year 2063/064. The return on net worth is also not satisfactory. The average return on net worth is only 1.03%. The return on net worth during the study period ranges from negative 40.84% to 35.27%. The average return on working capital is also negative of 0.11%, which is not satisfactory. It is quite fluctuating during the study period. In fiscal year 2059/060, it has highest return on working capital of 16.18% and lowest in fiscal year 2063/064 of negative 21.30%.

xv) Turnover ratio measures the degree of effectiveness in use of resource or fund by a firm. The turnover position is analyzed from various angle. The working capital turnover of S.D. Ltd. during the study period is fluctuating. It fluctuated from 1.79 times to 2.55 times. The average working capital turnover is 2.07 times during

the study period. The average inventory turnover ratio is 1.70 times during the five study years. The firm has highest ratio of 2.08 times in fiscal year 2059/060 and lowest of 1.30 times in fiscal year 2063/064. The inventory turnover ratio is in decreasing trend except in fiscal year 2061/062. The average receivable turnover ratio is 60 days. It means that all the receivable amount is collected within 60 days. The firm has best receivable turnover ratio of 39 days in fiscal year 2061/062. It means that the receivable amount is collected within only 39 days. This is the fastest collection period. The cash and bank balance turnover ratio is fluctuating during the study period. It ranges from 4.32 times to 34.15 times. The average cash and bank balance turnover ratio is 20.23 times during the study period. It has lowest ratio in fiscal year 2061/062 and highest in fiscal year 2063/064.

xvi) The short-term financing to long-term financing ratio is fluctuated from 0.97 times to 1.17 times. The firm has highest ratio in fiscal year 2060/061 and lowest in fiscal year 2061/062. The average short-term financing to long-term financing ratio is 1.07 times during the study period. The short-term financing to total financing ratio is fluctuated from 0.49 times to 0.54 times. And the average short-term financing to total financing ratio is 0.52 times during the study period.

CHAPTER FIVE

SUMMARY, RECOMMENDATION AND CONCLUSION

This chapter has been written to summarize draw whole of the study. It also aims to draw the conclusion of the study and forward the applicable recommendations to the company related to this research.

5.1 Summary:

The first chapter describes the brief introduction of the study, industrialization and its role in Nepal. This chapter includes background, statement of problem, objectives of the study, and significances of the study and organization of the study as a whole. The second chapter is review of literature. This chapter deals with the general concept of the writer and thesis towards the working capital management. This includes the opinion of different writers regarding with the thesis topic. It also includes review of pervious related research studies and previous student. The third chapter is research methodology. It has included the research design. It present the nature and sources of data, data collection and processing technique and financial and statistical tools used. This chapter gives the knowledge about various ratios and Karl Pearson's Correlation Coefficient and Probable Error. The fourth chapter is presentation and analysis of data. An attempt to analyze the working capital policy and trade off between liquidity and profitability of S. D. Ltd. for five fiscal year (2059/060 to 2063/064) has been done. For the purpose of the analysis of composition of current assets and current liabilities, proportion of current assets to total assets and fixed assets, proportion of cash and bank balance to total assets and current assets, proportion of inventory to total

assets and current assets, proportion of receivable to total assets and current assets have been analyzed. It has also analyzed the current ratio, profitability ratio, turnover ratio and leverage ratio in this chapter with the major finding from the result of calculation. And in the last chapter an attempt has been made to present summary, some suggestion for S. D. Ltd as recommendation and lastly conclusions about the study.

The basic objective of this study is to examine the management of working capital of S.D. Ltd. To accomplish these objectives set earlier in first chapter, the necessary data as from primary and secondary source are collected from financial statements of the S.D. Ltd. Questionnaire distribution to chief of various departments of the firm. The secondary data has been analyzed through ratio analysis as a financial tools and correlation coefficient as a statistical tool. The major ratio analysis consists of composition of working capital position, liquidity position, turnover position, profitability position and leverage position. In order to test the relationship between the various variable of working capital, Karl Pearson's Correlation Coefficient (r) is calculated and analyzed.

5.2 Recommendation:

Based on the finding of the study the following recommendations are forwarded for the improvement of the working capital management of S.D. Ltd.

A) Effective Working Capital Management:

The fluctuation in the current assets holding lead to conclude that S.D. Ltd is not examining its appropriate working capital policy due to lack of target for current assets holding in the long run and absence of source of financing most to S.D. Ltd. Financial situation is not so sound. So, there must be compulsory formulation of

appropriate working capital policy not only conservative. Beside this, there should be policy to prevent the holding of excessive and inadequate current assets in the firm. In S.D. Ltd, the most important current assets are cash debtors, inventory which are given below:

i) Effective Management of Cash:

The function of investment in money assets is to meet operational requirements in day to day business, to provide a reserve of liquidity for major schedule outflows of cash, to exploit opportunities, to avoid unexpected drains of cash and so on. There are many ways to effective management of cash in S.D. Ltd. such as: minimization of float, better synchronization of cash flows, slowing disbursements etc. If cash appears more than requirement, the company showed invests such ideal fund in marketable securities. Here, statistical relationship between cash and current assets are not correlated, so management of cash should be proper.

ii) Effective Management of Receivable:

In S.D. Ltd. there is larger investment in receivable. But there should be neither over investment nor lower investment in receivable. These policies involving receivable management involves trade off between risk and return. The main determinants of the size of investment are terms of sale, the selection of customers to give credit, efficiency in collecting receivables and so on. One way to control investment in receivable is to find out receivable as percent of sales. The other way are preparing schedule of receivable analysis credit worthiness of customers, minimizing float and so on. It should adopt a definite credit and collection policies. The credit

purchase helps for lowering the requirement of working capital but it should also have credit sales. The credit sales increase the total sales volume and profit but it also increase collection lost, bad debt losses and administration cost management should consider the trade off between cost and profit adopted.

iii) Effective Inventory Management:

The investment in inventory with respect to current assets made by S.D. Ltd. ranges from 53.44% to 68.45%. The average investment in inventory with respect to current assets is 63.27% and 47.16% with respect to total assets. Such highly fluctuated investment in inventory shows that there is no specific policy related with inventory management. Such highly varied amount in inventory shows that they are investing randomly. The effective management of working capital wholly depends upon proper management of inventory because it absorbs higher percentage of current assets. For this company should make effective sales plan which helps for immediate marketability and certainly decreases the problem of over stocking. The management must minimize the wastage, scarps, there should be good store-keeping system better material handling system and timely inspection system. Moreover the useful, the non-moving and absolute items should be discarded to avoid unnecessary blockage up of inventory.

B) Improvement of Turnover Position:

It is found that net working capital turnover is very low which indicates that utilization of net working capital higher level of current assets with unmanaged production and sales have contributed for

lower turnover. If the firm will manage working capital properly, the net working capital will be higher. In such situation, the firm will be able to meet current obligation in maturity date. On the other hand, average receivable turnover is high of 60 days. It means that all receivable amounts are collected within 60 days. It is long time for the amount to recover. So, the firm should use good receivable collection policy to collect receivable amount in quick time and only the firm can use this amount for other purpose.

C) Minimizing the Operating Cost:

During the period of study, the S.D. Ltd. is having high operating cost of production. The management should give attention towards the purchase of raw materials, unnecessary expenses, misuse of facilities, heavy expenses on overheads which are the major causes for high operating cost. To overcome this, the management should be strict for use of facilities, not only this but also right number of workers in right place providing necessary training from time to time. Not only this, the management also have put attention on the inactive and technology used. This will reduce the operating cost.

D) Prepare Effective Sales Plan:

Sales directly affect the need of current assets. As the sales increase the working capital level will also increase. In the absence of sales forecast the level of current assets cannot be forecasted. But for its market competition and production condition should also be analyzed. However, S.D. Ltd. has also appointed different areas of Nepal. So, there should be proper co-operation, interaction between different sales agents, product, marketing and sales department during the planning of sales. Due to lack of this, S.D. Ltd. is not able to meet the target sales in previous years of study.

E) Positive Attitude towards Risk:

Since, the risk is the opportunity for company to make profit; that management should not consider it is dangerous. It is the ability to manage the current assets properly and efficiently. S.D. Ltd. is in risk because of adoption of conservative working capital policy. It is also the one cause of incurring not good return. When the management properly utilizes the current assets, predicts the further return and timing of cash generation, there will be self generation of funds by which company should not depend upon permanent financing for the current assets on temporary assets. To develop the managed ability to take risk, there should be training, participation in management conferences, foreign enterprise tours, etc for the managerial level employees.

5.3 Conclusion:

In conclusion, it can be said safely that the working capital management cannot be neglected by S.D. Ltd. Otherwise; it can seriously erode its financial viability. Thus, managers must understand the factors determining working capital needs, so that such manufacturing company don't suffers from huge logs.

The proportion of current assets with respect to total assets and net fixed assets in S.D. Ltd. shows that current assets absorb high percentage of those total assets, as the higher ratio indicates the greater amount of working capital which will decrease risk and profitability. It is due to higher proportion of inventory and receivables. There is positive correlation between current assets and total assets as well as statically significant and there is significant difference between two variables which could adversely effect in the firm's wealth maximization goal is the long run.

The firm's cash balance with respect to current assets and total assets are in increasing decreasing trend. The firm has excess cash balance in fiscal year 2061/62 of Rs. 28.77 Million, lowest in fiscal year 2063/64 of Rs. 2.54 Million cash balance should be just adequate to run business and excess cash has no meanings as it earns nothings. So, the company should always see the risk return trade off to maintain just adequate cash balance.

Inventory management is on of the important parts of manufacturing company. It absorbs higher percentage of total current assets which means large funds tie-up of in it. So far as liquidity is concerned, it is a lease liquid current asset in itself. There is the positive correlation in between current asset and inventory. But the management of inventory is unsound. Receivable constitute an important part of assets of the firm. So far as the S.D. Ltd's receivable is concerned, it also occupies larger position of current asset and total assets with average of 63.27% and 12.53% respectively during the study period. The average receivable collection period is too long of 60 days about 2 months. It concludes liberal credit policy. The working capital should be arranged in such a way that it should generate maximum turnover.

Though the current ratio shows the sound liquidity position of S.D. Ltd. with ratio of 2.06 times which is near to the standard of 2 times but quick ratio is a bit low of 0.76 times than that of standard ratio of 1 times. It is because of higher percentage of inventory. There is positive correlation between variables. This shows fair liquidity position of the company.

The profitability position of the S.D. Ltd. during the study period is not satisfactory. Although the firm is having profit for first four studied period, it

is having heavy loss in last fiscal year. It is due to less sales and high production cost and operating cost. There is also no proper utilization of resources available to the firm. It is still followed conservative working capital which reduces risk but hamper in profitability in long run. So, the firm can improve it by following appropriate working capital policy which could maximize its profitability.

If S.D. Ltd. undertakes measure like: identification of needed funds, regular checks, development of positive attitude towards risk, profit determination, right combinations of short-term and long-term sources and funds to finance, working capital needs, appropriate combination of investment in current assets, minimizing production, operating cost, prepare effective sales plan, improving liquidity, speedy cash conversion, proper inventory techniques to overcome these problems and improve its financial performance as well as working capital.

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Appendix-1

Examine the relationship between Current Assets and Total Assets

(Rs. in Million)

Year (N)	**Current Assets (x)**	**Total Assets (y)**	$dx = (x - \bar{x})$	dx^2	$dy = (y - \bar{y})$	dy^2	dx.dy
2059/60	113.58	150.28	-0.68	0.46	-2.92	8.53	1.98
2060/61	123.67	160.70	9.41	88.55	7.50	56.25	70.58
2061/62	112.41	151.26	-1.85	3.42	-1.94	3.76	3.59
2062/63	121.77	163.13	7.51	56.40	9.94	98.80	74.64
2063/64	99.88	140.63	-14.38	206.78	-12.57	158.00	180.76
	$\bar{x}$ **=144.26**	$\bar{y}$ **=153.20**	$\sum dx$ **=0.01**	$\sum dx^2$ **=355.61**	$\sum dy$ **=0.01**	$\sum dy^2$ **=325.34**	$\sum dx.dy$ **=331.55**

$$\text{Now, Correlation Coefficient (r)} = \frac{\sum dx.dy - \frac{\sum dx.\sum dy}{N}}{\sqrt{\left[\sum dx^2 - \frac{(\sum dx)^2}{N}\right]\left[\sum dy^2 - \frac{(\sum dy)^2}{N}\right]}}$$

$$= \frac{331.55 - \frac{0.01 \times 0.01}{5}}{\sqrt{\left[355.61 - \frac{(0.01)^2}{5}\right]\left[325.34 - \frac{(0.01)^2}{5}\right]}}$$

$$= \frac{331.55}{\sqrt{355.61 \times 325.34}}$$

$$= 0.98$$

$$\text{Then, P.E.} = \frac{0.6745(1 - r^2)}{\sqrt{N}}$$

$$= \frac{0.6745[1 - (0.98)^2]}{\sqrt{5}}$$

$$= 0.012$$

Appendix-2

Examine the relationship between Current Assets and Fixed Assets

(Rs. in Million)

Year (N)	**Current Assets (x)**	**Fixed Assets (y)**	$dx = (x - \bar{x})$	dx^2	$dy = (y - \bar{y})$	dy^2	dx.dy
2059/60	113.58	36.70	-0.68	0.46	-2.92	5.24	1.56
2060/61	123.67	37.03	9.41	88.55	-1.96	3.84	-18.44
2061/62	112.41	38.85	-1.85	3.42	-0.14	0.02	0.26
2062/63	121.77	41.36	7.51	56.40	2.37	5.62	17.80
2063/64	99.88	40.75	-14.38	206.78	1.76	3.10	-25.31
	$\bar{x}$ **=144.26**	$\bar{y}$ **=38.99**	$\sum dx$ **= 0.01**	$\sum dx^2$ **=355.61**	$\sum dy$ **= -0.20**	$\sum dy^2$ **=17.82**	$\sum dx.dy$ **= -24.13**

Now, Correlation Coefficient (r) = $\dfrac{\sum dx.dy - \dfrac{\sum dx.\sum dy}{N}}{\sqrt{\left[\sum dx^2 - \dfrac{(\sum dx)^2}{N}\right]\left[\sum dy^2 - \dfrac{(\sum dy)^2}{N}\right]}}$

$= \dfrac{-24.13 - \dfrac{0.01 \times 0.26}{5}}{\sqrt{\left[355.61 - \dfrac{(0.01)^2}{5}\right]\left[17.82 - \dfrac{(0.26)^2}{5}\right]}}$

$= -0.30$

Then, P.E. = $\dfrac{0.6745(1 - r^2)}{\sqrt{N}}$

$= \dfrac{0.6745[1 - (-0.30)^2]}{\sqrt{5}}$

$= \dfrac{0.61}{2.24}$

$= 0.27$

Appendix-3

Examine the relationship between Cash & Bank Balance and Current Assets

(Rs. in Million)

Year (N)	**Cash & Bank Balance (x)**	**Current Assets (y)**	$dx = (x - \bar{x})$	dx^2	$dy = (y - \bar{y})$	dy^2	dx.dy
2059/60	5.73	113.58	-4.79	22.94	-0.68	0.46	3.26
2060/61	4.74	123.67	-5.78	33.41	9.41	88.55	-54.39
2061/62	28.77	112.41	18.25	333.06	-1.85	3.42	-33.76
2062/63	10.80	121.77	0.28	0.08	7.51	56.40	2.10
2063/64	2.54	99.88	-7.98	63.68	-14.38	206.78	114.75
	$\bar{x}$ **=10.52**	$\bar{y}$ **=144.26**	$\sum dx$ = **-0.02**	$\sum dx^2$ **=453.17**	$\sum dy$ **=0.01**	$\sum dy^2$ **=355.61**	$\sum dx.dy$ = **31.96**

Now, Correlation Coefficient (r) = $$\frac{\sum dx.dy - \frac{\sum dx.\sum dy}{N}}{\sqrt{\left[\sum dx^2 - \frac{(\sum dx)^2}{N}\right]\left[\sum dy^2 - \frac{(\sum dy)^2}{N}\right]}}$$

$$= \frac{31.96 - \frac{(-0.02)\times 0.01}{5}}{\sqrt{\left[453.17 - \frac{(-0.02)^2}{5}\right]\left[17.82 - \frac{(0.01)^2}{5}\right]}}$$

$$= 0.08$$

Then, P.E. = $$\frac{0.6745(1-r^2)}{\sqrt{N}}$$

$$= \frac{0.6745[1-(0.08)^2]}{\sqrt{5}}$$

$$= \frac{0.67}{2.24}$$

$$= 0.30$$

Appendix-4

Examine the relationship between Cash and Total Assets

(Rs. in Million)

Year (N)	**Current Assets (x)**	**Total Assets (y)**	$dx = (x - \bar{x})$	dx^2	$dy = (y - \bar{y})$	dy^2	dx.dy
2059/60	5.73	150.28	-4.79	22.94	-2.92	8.53	13.99
2060/61	4.74	160.70	-5.78	33.41	7.50	56.25	-43.35
2061/62	28.77	151.26	18.25	333.06	-1.94	3.76	-35.41
2062/63	10.80	163.13	0.28	0.08	9.94	98.80	2.78
2063/64	2.54	140.63	-7.98	63.68	-12.57	158.00	100.31
	$\bar{x}$ **=10.52**	$\bar{y}$ **=153.20**	$\sum dx$ = **-0.02**	$\sum dx^2$ **=453.17**	$\sum dy$ **=0.01**	$\sum dy^2$ **=325.34**	$\sum dx.dy$ = **38.32**

Now, Correlation Coefficient (r) $= \dfrac{\sum dx.dy - \dfrac{\sum dx.\sum dy}{N}}{\sqrt{\left[\sum dx^2 - \dfrac{(\sum dx)^2}{N}\right]\left[\sum dy^2 - \dfrac{(\sum dy)^2}{N}\right]}}$

$= \dfrac{-38.32 - \dfrac{(-0.02) \times 0.01}{5}}{\sqrt{\left[453.17 - \dfrac{(-0.02)^2}{5}\right]\left[325.34 - \dfrac{(0.01)^2}{5}\right]}}$

$= \dfrac{38.32}{383.97}$

$= 0.10$

Then, P.E. $= \dfrac{0.6745(1 - r^2)}{\sqrt{N}}$

$= \dfrac{0.6745[1 - (0.10)^2]}{\sqrt{5}}$

$= \dfrac{0.67}{2.24}$

$= 0.30$

Appendix-5

Examine the relationship between Inventories and Total Assets

(Rs. in Million)

Year (N)	Inventories (x)	Total Assets (y)	$dx = (x - \bar{x})$	dx^2	$dy = (y - \bar{y})$	dy^2	dx.dy
2059/60	77.75	150.28	5.48	30.03	-2.92	8.53	-16.00
2060/61	83.77	160.70	11.50	132.25	7.50	56.25	86.25
2061/62	60.07	151.26	-12.20	148.84	-1.94	3.76	23.66
2062/63	73.29	163.13	1.02	1.04	9.94	98.80	11.93
2063/64	66.47	140.63	-5.8	33.64	-12.57	158.00	72.91
	$\bar{x}$ =**72.27**	$\bar{y}$ =**153.20**	$\sum dx$ = **0**	$\sum dx^2$ =**345.80**	$\sum dy$ =**0.01**	$\sum dy^2$ =**325.34**	$\sum dx.dy$ = **178.75**

Now, Correlation Coefficient (r) $= \dfrac{\sum dx.dy - \dfrac{\sum dx.\sum dy}{N}}{\sqrt{\left[\sum dx^2 - \dfrac{(\sum dx)^2}{N}\right]\left[\sum dy^2 - \dfrac{(\sum dy)^2}{N}\right]}}$

$= \dfrac{-178.75 - \dfrac{(0 \times 0.01)}{5}}{\sqrt{\left[345.80 - \dfrac{(0)^2}{5}\right]\left[325.34 - \dfrac{(0.01)^2}{5}\right]}}$

$= \dfrac{178.75}{\sqrt{345.80 \times 325.34}}$

$= 0.52$

Then, P.E. $= \dfrac{0.6745(1 - r^2)}{\sqrt{N}}$

$= \dfrac{0.6745[1 - (0.52)^2]}{\sqrt{5}}$

$= \dfrac{0.49}{2.24}$

$= 0.22$

Appendix-6

Examine the relationship between Inventories and Current Assets

(Rs. in Million)

Year (N)	**Inventories (x)**	**Current Assets (y)**	$dx = (x - \bar{x})$	dx^2	$dy = (y - \bar{y})$	dy^2	dx.dy
2059/60	77.75	113.58	5.48	30.03	-0.68	0.46	-.373
2060/61	83.77	123.67	11.50	132.25	9.41	88.55	108.22
2061/62	60.07	112.41	-12.20	148.84	-1.85	3.42	22.57
2062/63	73.29	121.77	1.02	1.04	7.51	56.40	7.66
2063/64	66.47	99.88	-5.8	33.64	-14.38	206.78	83.40
	$\bar{x}$ **=72.27**	$\bar{y}$ **=144.26**	$\sum dx$ = **0**	$\sum dx^2$ **=345.80**	$\sum dy$ = **0.01**	$\sum dy^2$ **=355.61**	$\sum dx.dy$ = **218.12**

Now, Correlation Coefficient (r) $= \dfrac{\sum dx.dy - \dfrac{\sum dx.\sum dy}{N}}{\sqrt{\left[\sum dx^2 - \dfrac{(\sum dx)^2}{N}\right]\left[\sum dy^2 - \dfrac{(\sum dy)^2}{N}\right]}}$

$= \dfrac{218.12 - \dfrac{(0 \times 0.01)}{5}}{\sqrt{\left[345.80 - \dfrac{(0)^2}{5}\right]\left[355.61 - \dfrac{(0.01)^2}{5}\right]}}$

$= \dfrac{218.12}{350.67}$

$= 0.62$

Then, P.E. $= \dfrac{0.6745(1 - r^2)}{\sqrt{N}}$

$= \dfrac{0.6745[1 - (0.62)^2]}{\sqrt{5}}$

$= \dfrac{0.42}{2.24}$

$= 0.19$

Appendix-7

Examine the relationship between Receivable and Total Assets

(Rs. in Million)

Year (N)	**Receivable (x)**	**Total Assets (y)**	$dx = (x - \bar{x})$	dx^2	$dy = (y - \bar{y})$	dy^2	dx.dy
2059/60	18.30	150.28	-0.96	0.92	-2.92	8.53	2.80
2060/61	21.07	160.70	1.81	3.28	7.50	56.25	13.58
2061/62	13.17	151.26	-6.09	37.09	-1.94	3.76	11.81
2062/63	25.29	163.13	6.03	36.36	9.94	98.80	29.94
2063/64	18.48	140.63	-0.78	0.61	-12.57	158.00	9.80
	$\bar{x}$ **=19.26**	$\bar{y}$ **=153.20**	$\sum dx$ = **0.01**	$\sum dx^2$ **=78.26**	$\sum dy$ **=0.01**	$\sum dy^2$ **=325.34**	$\sum dx.dy$ = **97.53**

Now, Correlation Coefficient (r) $= \dfrac{\sum dx.dy - \dfrac{\sum dx.\sum dy}{N}}{\sqrt{\left[\sum dx^2 - \dfrac{(\sum dx)^2}{N}\right]\left[\sum dy^2 - \dfrac{(\sum dy)^2}{N}\right]}}$

$= \dfrac{97.53 - \dfrac{(0.01 \times 0.01)}{5}}{\sqrt{\left[78.26 - \dfrac{(0.01)^2}{5}\right]\left[325.34 - \dfrac{(0.01)^2}{5}\right]}}$

$= \dfrac{97.93}{159.57}$

$= 0.61$

Then, P.E. $= \dfrac{0.6745(1 - r^2)}{\sqrt{N}}$

$= \dfrac{0.6745[1 - (0.61)^2]}{\sqrt{5}}$

$= \dfrac{0.42}{2.24}$

$= 0.19$

Appendix-8

Examine the relationship between Receivable and Current Assets

(Rs. in Million)

Year (N)	**Receivable (x)**	**Current Assets (y)**	$dx = (x - \bar{x})$	dx^2	$dy = (y - \bar{y})$	dy^2	dx.dy
2059/60	18.30	113.58	-0.96	0.92	-0.68	0.46	0.65
2060/61	21.07	123.67	1.81	3.28	9.41	88.55	17.03
2061/62	13.17	112.41	-6.09	37.09	-1.85	3.42	11.27
2062/63	25.29	121.77	6.03	36.36	7.51	56.40	45.29
2063/64	18.48	99.88	-0.78	0.61	-14.38	206.78	11.22
	$\bar{x}$ **=19.26**	$\bar{y}$ **=144.26**	$\sum dx$ = **0.01**	$\sum dx^2$ **=78.26**	$\sum dy$ = **0.01**	$\sum dy^2$ **=355.61**	$\sum dx.dy$ = **85.46**

Now, Correlation Coefficient (r) $= \dfrac{\sum dx.dy - \dfrac{\sum dx.\sum dy}{N}}{\sqrt{\left[\sum dx^2 - \dfrac{(\sum dx)^2}{N}\right]\left[\sum dy^2 - \dfrac{(\sum dy)^2}{N}\right]}}$

$= \dfrac{85.46 - \dfrac{(0.01 \times 0.01)}{5}}{\sqrt{\left[78.26 - \dfrac{(0.01)^2}{5}\right]\left[355.62 - \dfrac{(0.01)^2}{5}\right]}}$

$= \dfrac{85.46}{166.83}$

$= 0.51$

Then, P.E. $= \dfrac{0.6745(1 - r^2)}{\sqrt{N}}$

$= \dfrac{0.6745[1 - (0.51)^2]}{\sqrt{5}}$

$= \dfrac{0.50}{2.24}$

$= 0.22$

Appendix-9

Examine the relationship between Current Assets and Current Liabilities

(Rs. in Million)

Year (N)	**Current Assets (x)**	**Current Liabilities (y)**	$dx = (x - \bar{x})$	dx^2	$dy = (y - \bar{y})$	dy^2	dx.dy
2059/60	113.58	52.48	-0.68	0.46	-3.15	9.92	2.14
2060/61	123.67	61.07	9.41	88.55	5.44	29.59	51.19
2061/62	112.41	50.30	-1.85	3.42	-5.33	28.41	9.86
2062/63	121.77	58.63	7.51	56.40	3.00	9.00	22.53
2063/64	99.88	55.69	-14.38	206.78	0.06	0.003	0.86
	$\bar{x}$ **=144.26**	$\bar{y}$ **=55.63**	$\sum dx$ **=0.01**	$\sum dx^2$ **=355.61**	$\sum dy$ **=0.02**	$\sum dy^2$ **=76.92**	$\sum dx.dy$ **=86.58**

Now, Correlation Coefficient (r) $= \dfrac{\sum dx.dy - \dfrac{\sum dx.\sum dy}{N}}{\sqrt{\left[\sum dx^2 - \dfrac{(\sum dx)^2}{N}\right]\left[\sum dy^2 - \dfrac{(\sum dy)^2}{N}\right]}}$

$= \dfrac{86.58 - \dfrac{0.01 \times 0.02}{5}}{\sqrt{\left[355.61 - \dfrac{(0.01)^2}{5}\right]\left[76.92 - \dfrac{(0.02)^2}{5}\right]}}$

$= \dfrac{86.58}{165.39}$

$= 0.52$

Then, P.E. $= \dfrac{0.6745(1 - r^2)}{\sqrt{N}}$

$= \dfrac{0.6745[1 - (0.52)^2]}{\sqrt{5}}$

$= \dfrac{0.49}{2.24}$

$= 0.22$

Appendix-10

Examine the relationship between Quick Assets and Current Liabilities

(Rs. in Million)

Year (N)	**Quick Assets (x)**	**Current Liabilities (y)**	$dx = (x - \bar{x})$	dx^2	$dy = (y - \bar{y})$	dy^2	dx.dy
2059/60	35.83	52.48	-6.16	37.95	-3.15	9.92	19.40
2060/61	39.90	61.07	-2.09	4.37	5.44	29.59	-11.37
2061/62	52.34	50.30	10.35	107.12	-5.33	28.41	-55.17
2062/63	48.48	58.63	6.49	42.12	3.00	9.00	19.47
2063/64	33.41	55.69	-8.58	73.62	0.06	0.003	-0.51
	$\bar{x}$ **=41.99**	$\bar{y}$ **=55.63**	$\sum dx$ **=0.01**	$\sum dx^2$ **=265.18**	$\sum dy$ **=0.02**	$\sum dy^2$ **=76.92**	$\sum dx.dy$ = **-28.18**

Now, Correlation Coefficient (r) $= \dfrac{\sum dx.dy - \dfrac{\sum dx.\sum dy}{N}}{\sqrt{\left[\sum dx^2 - \dfrac{(\sum dx)^2}{N}\right]\left[\sum dy^2 - \dfrac{(\sum dy)^2}{N}\right]}}$

$= \dfrac{28.18 - \dfrac{0.01 \times 0.02}{5}}{\sqrt{\left[265.18 - \dfrac{(0.01)^2}{5}\right]\left[76.92 - \dfrac{(0.02)^2}{5}\right]}}$

$= \dfrac{-28.18}{142.82}$

$= -0.197$

Then, P.E. $= \dfrac{0.6745(1 - r^2)}{\sqrt{N}}$

$= \dfrac{0.6745[1 - (-0.197)^2]}{\sqrt{5}}$

$= \dfrac{0.65}{2.24}$

$= 0.29$

Appendix-11

Examine the relationship between Cash & Marketable Security and Current Liabilities

(Rs. in Million)

Year (N)	**Cash (x)**	**Current Liabilities (y)**	$dx = (x - \bar{x})$	dx^2	$dy = (y - \bar{y})$	dy^2	dx.dy
2059/60	5.73	52.48	-4.79	22.94	-3.15	9.92	15.09
2060/61	4.74	61.07	-5.78	33.41	5.44	29.59	-31.44
2061/62	28.77	50.30	18.25	333.06	-5.33	28.41	-97.27
2062/63	10.80	58.63	0.28	0.08	3.00	9.00	0.84
2063/64	2.54	55.69	-7.98	63.68	0.06	0.003	-0.48
	$\bar{x}$ **=10.52**	$\bar{y}$ **=55.63**	$\sum dx$ = **-0.02**	$\sum dx^2$ **=453.17**	$\sum dy$ **=0.02**	$\sum dy^2$ **=76.92**	$\sum dx.dy$ = **-113.26**

Now, Correlation Coefficient (r) = $$\frac{\sum dx.dy - \frac{\sum dx.\sum dy}{N}}{\sqrt{\left[\sum dx^2 - \frac{(\sum dx)^2}{N}\right]\left[\sum dy^2 - \frac{(\sum dy)^2}{N}\right]}}$$

$$= \frac{-113.26 - \frac{-0.02 \times 0.02}{5}}{\sqrt{\left[453.17 - \frac{(-0.02)^2}{5}\right]\left[76.92 - \frac{(0.02)^2}{5}\right]}}$$

$$= \frac{-113.26}{186.70}$$

$$= -0.61$$

Then, P.E. = $$\frac{0.6745(1 - r^2)}{\sqrt{N}}$$

$$= \frac{0.6745[1 - (-0.61)^2]}{\sqrt{5}}$$

$$= \frac{0.42}{2.24}$$

$$= 0.19$$

Appendix-12

Examine the relationship between Working Capital and Current Assets

(Rs. in Million)

Year (N)	**Working Capital (x)**	**Current Assets (y)**	$dx = (x - \bar{x})$	dx^2	$dy = (y - \bar{y})$	dy^2	dx.dy
2059/60	61.10	113.58	2.47	6.10	-0.68	0.46	-1.68
2060/61	62.60	123.67	3.97	15.76	9.41	88.55	37.36
2061/62	62.11	112.41	3.48	12.11	-1.85	3.42	-6.44
2062/63	63.14	121.77	4.51	20.34	7.51	56.40	33.87
2063/64	44.19	99.88	-14.41	208.51	-14.38	206.78	207.65
	$\bar{x}$ =**58.63**	$\bar{y}$ =**144.26**	$\sum dx$ = **-0.01**	$\sum dx^2$ =**262.82**	$\sum dy$ = **0.01**	$\sum dy^2$ =**355.61**	$\sum dx.dy$ = **270.76**

$$\text{Now, Correlation Coefficient (r)} = \frac{\sum dx.dy - \frac{\sum dx.\sum dy}{N}}{\sqrt{\left[\sum dx^2 - \frac{(\sum dx)^2}{N}\right]\left[\sum dy^2 - \frac{(\sum dy)^2}{N}\right]}}$$

$$= \frac{270.76 - \frac{(-0.01 \times 0.01)}{5}}{\sqrt{\left[262.82 - \frac{(-0.01)^2}{5}\right]\left[355.62 - \frac{(0.01)^2}{5}\right]}}$$

$$= \frac{270.76}{305.71}$$

$$= 0.89$$

$$\text{Then, P.E.} = \frac{0.6745(1 - r^2)}{\sqrt{N}}$$

$$= \frac{0.6745[1 - (0.89)^2]}{\sqrt{5}}$$

$$= \frac{0.14}{2.24}$$

$$= 0.063$$

Appendix-13

Examine the relationship between Gross Profit and Sales

(Rs. in Million)

Year (N)	**Gross Profit (x)**	**Sales (y)**	$dx = (x - \bar{x})$	dx^2	$dy = (y - \bar{y})$	dy^2	dx.dy
2059/60	36.49	156.04	30.27	916.27	34.61	1197.85	1047.65
2060/61	2.98	111.97	-3.24	10.50	-9.46	89.49	30.65
2061/62	1.57	124.40	-4.65	21.62	2.97	8.82	-13.81
2062/63	10.30	128.02	4.08	16.65	6.59	43.43	26.89
2063/64	(20.25)	86.73	-26.47	700.66	-34.70	1204.09	918.51
	$\bar{x}$ **=6.22**	$\bar{y}$ **=121.43**	$\sum dx$ = **-0.01**	$\sum dx^2$ **=1665.70**	$\sum dy$ = **0.01**	$\sum dy^2$ **=2543.68**	$\sum dx.dy$ = **2009.89**

$$\text{Now, Correlation Coefficient (r)} = \frac{\sum dx.dy - \frac{\sum dx.\sum dy}{N}}{\sqrt{\left[\sum dx^2 - \frac{(\sum dx)^2}{N}\right]\left[\sum dy^2 - \frac{(\sum dy)^2}{N}\right]}}$$

$$= \frac{2009.89 - \frac{(-0.01 \times 0.01)}{5}}{\sqrt{\left[1665.70 - \frac{(-0.01)^2}{5}\right]\left[2543.68 - \frac{(0.01)^2}{5}\right]}}$$

$$= \frac{2009.89}{2058.40}$$

$$= 0.98$$

$$\text{Then, P.E.} = \frac{0.6745(1 - r^2)}{\sqrt{N}}$$

$$= \frac{0.6745[1 - (0.98)^2]}{\sqrt{5}}$$

$$= \frac{0.027}{2.24}$$

$$= 0.012$$

Appendix-14

Examine the relationship between Net Profit after Tax and Sales

(Rs. in Million)

Year (N)	**Net Profit after Tax (x)**	**Sales (y)**	$dx = (x - \bar{x})$	dx^2	$dy = (y - \bar{y})$	dy^2	dx.dy
2059/60	18.38	156.04	17.84	318.27	34.61	1197.85	617.44
2060/61	0.70	111.97	0.16	0.03	-9.46	89.49	-1.51
2061/62	0.09	124.40	-0.45	0.20	2.97	8.82	-1.34
2062/63	4.79	128.02	4.25	18.06	6.59	43.43	28.01
2063/64	(21.25)	86.73	-21.79	474.80	-34.70	1204.09	860.21
	$\bar{x}$ **=0.54**	$\bar{y}$ **=121.43**	$\sum dx$ **=0.01**	$\sum dx^2$ **=811.36**	$\sum dy$ **= 0.01**	$\sum dy^2$ **=2543.68**	$\sum dx.dy$ **= 1502.81**

$$\text{Now, Correlation Coefficient (r)} = \frac{\sum dx.dy - \frac{\sum dx.\sum dy}{N}}{\sqrt{\left[\sum dx^2 - \frac{(\sum dx)^2}{N}\right]\left[\sum dy^2 - \frac{(\sum dy)^2}{N}\right]}}$$

$$= \frac{1502.81 - \frac{(0.01 \times 0.01)}{5}}{\sqrt{\left[811.36 - \frac{(0.01)^2}{5}\right]\left[2543.68 - \frac{(0.01)^2}{5}\right]}}$$

$$= \frac{1502.81}{1436.61}$$

$$= 1.05$$

$$\text{Then, P.E.} = \frac{0.6745(1 - r^2)}{\sqrt{N}}$$

$$= \frac{0.6745[1 - (1.05)^2]}{\sqrt{5}}$$

$$= \frac{0.07}{2.24}$$

$$= 0.03$$

Appendix-15

Examine the relationship between COGS & Operating Expenses and Sales

(Rs. in Million)

Year (N)	**COGS+ Operating Exp^n (x)**	**Sales (y)**	$dx = (x - \bar{x})$	dx^2	$dy = (y - \bar{y})$	dy^2	dx.dy
2059/60	119.55	156.04	4.34	18.84	34.61	1197.85	150.20
2060/61	108.99	111.97	-6.22	38.69	-9.46	89.49	58.84
2061/62	122.83	124.40	7.62	58.06	2.97	8.82	22.63
2062/63	117.72	128.02	2.51	6.30	6.59	43.43	16.54
2063/64	106.98	86.73	-8.23	67.73	-34.70	1204.09	285.58
	$\bar{x}$ **=115.21**	$\bar{y}$ **=121.43**	$\sum dx$ **=0.02**	$\sum dx^2$ **=189.62**	$\sum dy$ **= 0.01**	$\sum dy^2$ **=2543.68**	$\sum dx.dy$ **= 533.79**

Now, Correlation Coefficient (r) $= \dfrac{\sum dx.dy - \dfrac{\sum dx.\sum dy}{N}}{\sqrt{\left[\sum dx^2 - \dfrac{(\sum dx)^2}{N}\right]\left[\sum dy^2 - \dfrac{(\sum dy)^2}{N}\right]}}$

$= \dfrac{533.79 - \dfrac{(0.02 \times 0.01)}{5}}{\sqrt{\left[189.62 - \dfrac{(0.02)^2}{5}\right]\left[2543.68 - \dfrac{(0.01)^2}{5}\right]}}$

$= \dfrac{533.79}{694.50}$

$= 0.77$

Then, P.E. $= \dfrac{0.6745(1 - r^2)}{\sqrt{N}}$

$= \dfrac{0.6745[1 - (0.77)^2]}{\sqrt{5}}$

$= \dfrac{0.27}{2.24}$

$= 0.12$

Appendix-16

Examine the relationship between Net Profit after Tax and Total Assets

(Rs. in Million)

Year (N)	**Net Profit after Tax (x)**	**Total Assets (y)**	$dx = (x - \bar{x})$	dx^2	$dy = (y - \bar{y})$	dy^2	dx.dy
2059/60	18.38	150.28	17.84	318.27	-2.92	8.53	-52.09
2060/61	0.70	160.70	0.16	0.03	7.50	56.25	1.2
2061/62	0.09	151.26	-0.45	0.20	-1.94	3.76	0.87
2062/63	4.79	163.13	4.25	18.06	9.94	98.80	42.25
2063/64	(21.25)	140.63	-21.79	474.80	-12.57	158.00	273.90
	$\bar{x}$ **=0.54**	$\bar{y}$ **=153.20**	$\sum dx$ **=0.01**	$\sum dx^2$ **=811.36**	$\sum dy$ **=0.01**	$\sum dy^2$ **=325.34**	$\sum dx.dy$ = **266.13**

$$\text{Now, Correlation Coefficient (r)} = \frac{\sum dx.dy - \frac{\sum dx.\sum dy}{N}}{\sqrt{\left[\sum dx^2 - \frac{(\sum dx)^2}{N}\right]\left[\sum dy^2 - \frac{(\sum dy)^2}{N}\right]}}$$

$$= \frac{266.13 - \frac{(0.01 \times 0.01)}{5}}{\sqrt{\left[811.36 - \frac{(0.01)^2}{5}\right]\left[325.34 - \frac{(0.01)^2}{5}\right]}}$$

$$= \frac{266.13}{513.78}$$

$$= 0.52$$

$$\text{Then, P.E.} = \frac{0.6745(1 - r^2)}{\sqrt{N}}$$

$$= \frac{0.6745[1 - (0.52)^2]}{\sqrt{5}}$$

$$= \frac{0.49}{2.24}$$

$$= 0.22$$

Appendix-17

Examine the relationship between Net Profit after Tax and Net Worth

(Rs. in Million)

Year (N)	**Net Profit after Tax (x)**	**Net Worth (y)**	$dx = (x - \bar{x})$	dx^2	$dy = (y - \bar{y})$	dy^2	dx.dy
2059/60	18.38	52.11	17.84	318.27	0	0	0
2060/61	0.70	52.11	0.16	0.03	0	0	0
2061/62	0.09	52.11	-0.45	0.20	0	0	0
2062/63	4.79	52.11	4.25	18.06	0	0	0
2063/64	(21.25)	52.11	-21.79	474.80	0	0	0
	$\bar{x}$ **=0.54**	$\bar{y}$ **=52.11**	$\sum dx$ **=0.01**	$\sum dx^2$ **=811.36**	$\sum dy$ **=0**	$\sum dy^2$ **=0**	$\sum dx.dy$ = **0**

Now, Correlation Coefficient (r) $= \dfrac{\sum dx.dy - \dfrac{\sum dx.\sum dy}{N}}{\sqrt{\left[\sum dx^2 - \dfrac{(\sum dx)^2}{N}\right]\left[\sum dy^2 - \dfrac{(\sum dy)^2}{N}\right]}}$

$= \dfrac{0 - \dfrac{(0.01 \times 0)}{5}}{\sqrt{\left[811.36 - \dfrac{(0.01)^2}{5}\right]\left[0 - \dfrac{(0)^2}{5}\right]}}$

$= \dfrac{0}{\sqrt{811.36 \times 0}}$

$= 0$

Then, P.E. $= \dfrac{0.6745(1 - r^2)}{\sqrt{N}}$

$= \dfrac{0.6745[1 - (0)^2]}{\sqrt{5}}$

$= \dfrac{0.67}{2.24}$

$= 0.30$

Appendix-18

Examine the relationship between Net Profit after Tax and Current Assets

(Rs. in Million)

Year (N)	**Net Profit after Tax (x)**	**Current Assets (y)**	$dx = (x - \bar{x})$	dx^2	$dy = (y - \bar{y})$	dy^2	dx.dy
2059/60	18.38	113.58	17.84	318.27	-0.68	0.46	-12.13
2060/61	0.70	123.67	0.16	0.03	9.41	88.55	1.51
2061/62	0.09	112.41	-0.45	0.20	-1.85	3.42	0.83
2062/63	4.79	121.77	4.25	18.06	7.51	56.40	31.92
2063/64	(21.25)	99.88	-21.79	474.80	-14.38	206.78	313.34
	$\bar{x}$ **=0.54**	$\bar{y}$ **=144.26**	$\sum dx$ **=0.01**	$\sum dx^2$ **=811.36**	$\sum dy$ **=0.01**	$\sum dy^2$ **=355.61**	$\sum dx.dy$ = **335.47**

$$\text{Now, Correlation Coefficient (r)} = \frac{\sum dx.dy - \frac{\sum dx.\sum dy}{N}}{\sqrt{\left[\sum dx^2 - \frac{(\sum dx)^2}{N}\right]\left[\sum dy^2 - \frac{(\sum dy)^2}{N}\right]}}$$

$$= \frac{335.47 - \frac{(0.01 \times 0.01)}{5}}{\sqrt{\left[811.36 - \frac{(0.01)^2}{5}\right]\left[355.61 - \frac{(0.01)^2}{5}\right]}}$$

$$= \frac{335.47}{537.15}$$

$$= 0.62$$

$$\text{Then, P.E.} = \frac{0.6745(1 - r^2)}{\sqrt{N}}$$

$$= \frac{0.6745[1 - (0.62)^2]}{\sqrt{5}}$$

$$= \frac{0.42}{2.24}$$

$$= 0.19$$

Appendix-19

Examine the relationship between Sales and Net Working Capital

(Rs. in Million)

Year (N)	**Sales (x)**	**Net Working Capital (y)**	$dx = (x - \bar{x})$	dx^2	$dy = (y - \bar{y})$	dy^2	dx.dy
2059/60	156.04	61.10	34.61	1197.85	2.47	6.10	85.49
2060/61	111.97	62.60	-9.46	89.49	3.97	15.76	-37.56
2061/62	124.40	62.11	2.97	8.82	3.48	12.11	10.34
2062/63	128.02	63.14	6.59	43.43	4.51	20.34	29.72
2063/64	86.73	44.19	-34.70	1204.09	-14.41	208.51	501.07
	$\bar{x}$ **=121.43**	$\bar{y}$ **=58.63**	$\sum dx$ **=0.01**	$\sum dx^2$ **=2543.68**	$\sum dy$ **= -0.01**	$\sum dy^2$ **=262.82**	$\sum dx.dy$ **= 589.06**

$$\text{Now, Correlation Coefficient (r)} = \frac{\sum dx.dy - \frac{\sum dx.\sum dy}{N}}{\sqrt{\left[\sum dx^2 - \frac{(\sum dx)^2}{N}\right]\left[\sum dy^2 - \frac{(\sum dy)^2}{N}\right]}}$$

$$= \frac{589.06 - \frac{(0.01 \times -0.01)}{5}}{\sqrt{\left[2543.68 - \frac{(0.01)^2}{5}\right]\left[262.82 - \frac{(-0.01)^2}{5}\right]}}$$

$$= \frac{589.06}{817.64}$$

$$= 0.72$$

$$\text{Then, P.E.} = \frac{0.6745(1 - r^2)}{\sqrt{N}}$$

$$= \frac{0.6745[1 - (0.72)^2]}{\sqrt{5}}$$

$$= \frac{0.32}{2.24}$$

$$= 0.14$$

Appendix-20

Examine the relationship between Sales and Inventory

(Rs. in Million)

Year (N)	**Sales (x)**	**Inventory (y)**	$dx = (x - \bar{x})$	dx^2	$dy = (y - \bar{y})$	dy^2	dx.dy
2059/60	156.04	77.75	34.61	1197.85	5.48	30.03	189.66
2060/61	111.97	83.77	-9.46	89.49	11.50	132.25	-108.79
2061/62	124.40	60.07	2.97	8.82	-12.20	148.84	-36.23
2062/63	128.02	73.29	6.59	43.43	1.02	1.04	6.72
2063/64	86.73	66.47	-34.70	1204.09	-5.8	33.64	201.26
	$\bar{x}$ =**121.43**	$\bar{y}$ =**72.27**	$\sum dx$ =**0.01**	$\sum dx^2$ =**2543.68**	$\sum dy$ = **0**	$\sum dy^2$ =**345.80**	$\sum dx.dy$ = **252.62**

$$\text{Now, Correlation Coefficient (r)} = \frac{\sum dx.dy - \frac{\sum dx.\sum dy}{N}}{\sqrt{\left[\sum dx^2 - \frac{(\sum dx)^2}{N}\right]\left[\sum dy^2 - \frac{(\sum dy)^2}{N}\right]}}$$

$$= \frac{252.62 - \frac{(0.01 \times 0)}{5}}{\sqrt{\left[2543.68 - \frac{(0.01)^2}{5}\right]\left[345.80 - \frac{(0)^2}{5}\right]}}$$

$$= \frac{252.62}{937.87}$$

$$= 0.27$$

$$\text{Then, P.E.} = \frac{0.6745(1 - r^2)}{\sqrt{N}}$$

$$= \frac{0.6745[1 - (0.27)^2]}{\sqrt{5}}$$

$$= \frac{0.63}{2.24}$$

$$= 0.28$$

Appendix-21

Examine the relationship between Sales and Receivables

(Rs. in Million)

Year (N)	Sales (x)	Receivables (y)	$dx = (x - \bar{x})$	dx^2	$dy = (y - \bar{y})$	dy^2	dx.dy
2059/60	156.04	18.30	34.61	1197.85	-0.96	0.92	-33.23
2060/61	111.97	21.07	-9.46	89.49	1.81	3.28	-17.12
2061/62	124.40	13.17	2.97	8.82	-6.09	37.09	-18.09
2062/63	128.02	25.29	6.59	43.43	6.03	36.36	39.74
2063/64	86.73	18.48	-34.70	1204.09	-0.78	0.61	27.07
	$\bar{x}$ **=121.43**	$\bar{y}$ **=19.26**	$\sum dx$ **=0.01**	$\sum dx^2$ **=2543.68**	$\sum dy$ **=0.01**	$\sum dy^2$ **=78.26**	$\sum dx.dy$ = **-1.63**

Now, Correlation Coefficient (r) $= \dfrac{\sum dx.dy - \dfrac{\sum dx.\sum dy}{N}}{\sqrt{\left[\sum dx^2 - \dfrac{(\sum dx)^2}{N}\right]\left[\sum dy^2 - \dfrac{(\sum dy)^2}{N}\right]}}$

$$= \frac{-1.63 - \dfrac{(0.01 \times 0.01)}{5}}{\sqrt{\left[2543.68 - \dfrac{(0.01)^2}{5}\right]\left[78.26 - \dfrac{(0.01)^2}{5}\right]}}$$

$$= \frac{-1.63}{446.17}$$

$$= 0.0037$$

Then, P.E. $= \dfrac{0.6745\,(1 - r^2)}{\sqrt{N}}$

$$= \frac{0.6745\,[1 - (0.0037)^2]}{\sqrt{5}}$$

$$= \frac{0.6745}{2.24}$$

$$= 0.30$$

Appendix-22

Examine the relationship between Sales and Cash & Bank Balance

(Rs. in Million)

Year (N)	**Sales (x)**	**Cash & Bank Balance (y)**	$dx = (x - \bar{x})$	dx^2	$dy = (y - \bar{y})$	dy^2	dx.dy
2059/60	156.04	5.73	34.61	1197.85	-4.79	22.94	-163.15
2060/61	111.97	4.74	-9.46	89.49	-5.78	33.41	54.68
2061/62	124.40	28.77	2.97	8.82	18.25	333.06	54.20
2062/63	128.02	10.80	6.59	43.43	0.28	0.08	1.85
2063/64	86.73	2.54	-34.70	1204.09	-7.98	63.68	276.91
	$\bar{x}$ **=121.43**	$\bar{y}$ **=10.52**	$\sum dx$ **=0.01**	$\sum dx^2$ **=2543.68**	$\sum dy$ **= -0.02**	$\sum dy^2$ **=453.17**	$\sum dx.dy$ = **224.49**

$$\text{Now, Correlation Coefficient (r)} = \frac{\sum dx.dy - \frac{\sum dx.\sum dy}{N}}{\sqrt{\left[\sum dx^2 - \frac{(\sum dx)^2}{N}\right]\left[\sum dy^2 - \frac{(\sum dy)^2}{N}\right]}}$$

$$= \frac{224.49 - \frac{(0.01 \times 0.02)}{5}}{\sqrt{\left[2543.68 - \frac{(0.01)^2}{5}\right]\left[453.17 - \frac{(-0.02)^2}{5}\right]}}$$

$$= \frac{224.49}{1073.65}$$

$$= 0.21$$

$$\text{Then, P.E.} = \frac{0.6745(1 - r^2)}{\sqrt{N}}$$

$$= \frac{0.6745[1 - (0.21)^2]}{\sqrt{5}}$$

$$= \frac{0.64}{2.24}$$

$$= 0.29$$

Appendix-23

Examine the relationship between Short-term Financing and Long-term Financing

(Rs. in Million)

Year (N)	STF (x)	LTF (y)	$dx = (x - \bar{x})$	dx^2	$dy = (y - \bar{y})$	dy^2	dx.dy
2059/60	52.48	52.11	-3.15	9.92	0	0	0
2060/61	61.07	52.11	5.44	29.59	0	0	0
2061/62	50.30	52.11	-5.33	28.41	0	0	0
2062/63	58.63	52.11	3.00	9.00	0	0	0
2063/64	55.69	52.11	0.06	0.003	0	0	0
	$\bar{x}$ =**55.63**	$\bar{y}$ =**52.11**	$\sum dx$ =**0.02**	$\sum dx^2$ =**76.92**	$\sum dy$ =**0**	$\sum dy^2$ =**0**	$\sum dx.dy$ =**0**

Now, Correlation Coefficient (r) $= \dfrac{\sum dx.dy - \dfrac{\sum dx.\sum dy}{N}}{\sqrt{\left[\sum dx^2 - \dfrac{(\sum dx)^2}{N}\right]\left[\sum dy^2 - \dfrac{(\sum dy)^2}{N}\right]}}$

$= \dfrac{0 - \dfrac{(0.00 \times 0)}{5}}{\sqrt{\left[76.92 - \dfrac{(0.02)^2}{5}\right]\left[0 - \dfrac{(0)^2}{5}\right]}}$

$= 0$

Then, P.E. $= \dfrac{0.6745(1 - r^2)}{\sqrt{N}}$

$= \dfrac{0.6745[1 - (0)^2]}{\sqrt{5}}$

$= \dfrac{0.6745}{2.24}$

$= 0.30$

Appendix-24

Examine the relationship between Short-term Financing and Total Financing

(Rs. in Million)

Year (N)	**STF (x)**	**TF (y)**	$dx = (x - \bar{x})$	dx^2	$dy = (y - \bar{y})$	dy^2	dx.dy
2059/60	52.48	104.59	-3.15	9.92	-3.15	9.92	9.92
2060/61	61.07	113.18	5.44	29.59	5.44	29.59	29.59
2061/62	50.30	102.41	-5.33	28.41	-5.33	28.41	28.41
2062/63	58.63	110.74	3.00	9.00	3.00	9.00	9.00
2063/64	55.69	107.80	0.06	0.003	0.06	0.004	0.004
	$\bar{x}$ **=55.63**	$\bar{y}$ **=107.74**	$\sum dx$ **=0.02**	$\sum dx^2$ **=76.92**	$\sum dy$ **=0.02**	$\sum dy^2$ **=76.92**	$\sum dx.dy$ **=76.92**

$$\text{Now, Correlation Coefficient (r)} = \frac{\sum dx.dy - \frac{\sum dx.\sum dy}{N}}{\sqrt{\left[\sum dx^2 - \frac{(\sum dx)^2}{N}\right]\left[\sum dy^2 - \frac{(\sum dy)^2}{N}\right]}}$$

$$= \frac{76.92 - \frac{(0.02 \times 0.02)}{5}}{\sqrt{\left[76.92 - \frac{(0.02)^2}{5}\right]\left[76.92 - \frac{(0.02)^2}{5}\right]}}$$

$$= \frac{76.92}{76.92}$$

$$= 1$$

$$\text{Then, P.E.} = \frac{0.6745(1 - r^2)}{\sqrt{N}}$$

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

$$= \frac{0}{2.24}$$

$$= 0$$

Appendix-25
Sumy Distilleries Ltd.
Profit & Loss A/c
For the fiscal year (2059/060 to 2063/064)

(Rs. in Million)

Statement	FY 2059/060	FY 2060/061	FY 2061/062	FY 2062/063	FY 2063/064
Sales	156.04	111.97	124.40	128.02	86.73
Cost of good sale	119.55	108.99	122.83	117.72	106.98
Purchase of raw materials	80.55	73.26	65.45	70.02	58.71
Subsidy of Raw materials	2.15	1.86	4.07	3.79	3.49
Manufacturing Expenses	20.00	21.81	24.39	27.73	30.90
Administrative Expenses	17.65	17.06	22.18	24.84	20.53
Depreciation	3.10	2.04	1.84	1.79	2.17
Total Production cost	123.45	116.03	117.93	128.17	115.80
Initial Inventory (Finished Goods)	7.79	11.39	16.82	7.85	13.86
Final Inventory (Finished Goods)	(11.69)	(18.43)	(7.85)	(14.60)	(19.14)
Less: Material Subsidy	-	-	(4.07)	(3.79)	(3.54)
Total Production & other expenses	119.55	108.99	122.83	117.63	106.98
Gross Profit (Loss)	36.49	2.98	1.57	10.3	(20.25)
Non-Operating Income					
Interest	2.40	0.75	0.60	1.02	0.35
Wastages: Finished Goods	0.68	0.96	0.83	0.65	0.65
Gross Profit before Provision	33.41	1.27	0.14	8.72	(21.25)
Provision For Interest	-	-	-	-	-
Dividend	-	-	-	-	-
Bonus for Employee (10%)	3.34	0.127	0.01	0.87	-
Residence for Employee (5%)	1.67	0.06	-	0.44	-
Tax (30%)	10.02	0.38	0.04	2.62	-
General Reserve Fund	-	-	-	-	-
P/L (Net) This Year	18.38	0.70	0.09	4.79	(21.25)
Last year Profit (Loss)	1.48	19.86	20.56	20.65	25.44
Net Profit Shifted to B/L	19.86	20.56	20.65	25.44	4.19

Appendix-26
Sumy Distilleries Ltd.
Balance Sheet
For the fiscal year (2059/060 to 2063/064)

(Rs. in Million)

Particular	**FY 2059/060**	**FY 2060/061**	**FY 2061/062**	**FY 2062/063**	**FY 2063/064**
Fixed Assets	34.40	35.73	37.55	38.06	39.45
Current Assets					
Inventory	77.75	83.77	60.07	73.29	66.47
Sundry Debtors	18.30	21.07	13.17	25.29	18.48
Advance Deposit	11.80	14.09	10.44	12.39	12.39
Cash & Bank Balance	5.73	4.74	28.77	10.80	2.54
Total Current Assets	113.58	123.67	112.41	121.77	99.88
Investment	2.30	1.30	1.30	3.30	1.30
Total Assets	**150.28**	**160.70**	**151.26**	**163.13**	**140.63**
Share Capital	52.11	52.11	52.11	52.11	52.11
General Reserve Fund	6.01	6.01	6.01	6.01	6.01
Capital Subsidy	13.74	14.87	16.11	14.86	16.55
Capital Reserve	6.08	6.08	6.08	6.08	6.08
Long-term Loan	-	-	-	-	-
Current Liabilities	52.48	61.07	50.30	58.63	55.69
Profit & Loss (A/c)	19.86	20.56	20.65	25.44	4.19
Total Current Liabilities	**150.28**	**160.70**	**151.26**	**163.13**	**140.63**

Appendix-27
Performa of Questionnaire
(A Study of Working Capital Management)

Name of the Respondent: Position:

Organization: Sumy Distillery Limited. Department:

1. **Which of the following two statements do you agree with?**
   a. Working capital is more difficult to manage than fixed capital.
   b. Fixed capital is more difficult to manage than working capital.
2. **Which do you think is the research for the importance of current asset management?**
   a. A lot of times have to be devoted to it.
   b. Investment in current asset is large and volatile.
   c. It has limited access to capital markets.
   d. Other (please specify).
3. **Which of the following asset has more problems?**
   a. Management of cash in hand and at bank.
   b. Management in Sundry Debtors (receivables).
   c. Management of inventories.
   d. Other (please specify).
4. **What is the major motive for holding cash in your organization?**
   a. Sufficient cash is required to provide a reserve for routine net outflow of cash.
   b. To meet schedule major outflows of cash. E.g. tax, dividend etc.
   c. To avoid unexpected drains of cash in the even of fire, strikes, machine breakdown, etc.
   d. Other (Please Specify).
5. **What is the major factor affecting the larger investment in Sundry Debtors (Receivables)?**
   a. The liberal credit policy.
   b. Paying practice of customer is late.
   c. Collection of trade credit is not efficient.
   d. Other (please specify).
6. **Why do you hold inventories? Please tick a major one.**
   a. To facilitate smooth operation of production and sales.
   b. To guard against the risk of unpredictable changes in demand for and supply of inventories.
   c. To take advantage of price increase.
   d. Others (please specify).